## Mind the Gap: Regional Economic Disparities and Political Discontent

by

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A thesis submitted to the

Faculty of the Graduate School of the

University of Colorado in partial fulfillment

of the requirement for the degree of

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Thesis directed by Professor Any Baker

#### **Abstract**

Over the past forty years, regional economic disparities have widened considerably in advanced economies around the world. The combination of globalization and technological change has led to the concentration of economic activity in a few large metropolitan regions at the expense of once prosperous rural and manufacturing regions. Uneven recoveries to the 2008 Global Financial Crisis have only exacerbated existing regional economic disparities over the past decade. In this three-article dissertation, I explore the political consequences of rising regional inequality in many wealthy democracies.

First, I examine whether the rise of regional inequality in recent decades has made the issue more politically salient to the public. Analyzing newspaper coverage of regional inequality in *The Guardian* from 2000-2021, I find that coverage of regional inequality nearly doubled during this twenty-two-year period, suggesting that the issue of regional inequality has become more politically salient as the country's economic disparities have widened. Second, I use survey data from the 2018 European Social Survey and regional- and country-level economic data to examine the effect of regional inequality on individual satisfaction with democracy. This cross-national analysis reveals that individuals residing in relatively poor regions are less satisfied with democracy than individuals residing in relatively prosperous regions. On average, satisfaction with democracy is also lower in countries with higher levels of regional inequality. Third, using data from an original survey experimented administered to residents of England in July of 2021, I explore why residents of economically-declining regions are more dissatisfied with the political status quo than others. I argue that regional economic disparities fuel feelings of relative

deprivation among the residents of these declining communities, contributing to their subsequent political discontent. However, I ultimately fail to find evidence of this theory.

The dissertation reveals the challenges posed to democracy by rising regional inequality – a type of inequality that has been largely neglected by political scientists. This dissertation also contributes to the ongoing debate between 'people-based' and 'place-based' economic developmental approaches.

# **Dedication**

To my parents and wife, Katie.

And to the memory of Ronnie "Dadgum" Arrington.

## Acknowledgements

As I close this chapter of my life, I would like to acknowledge the people that made it all possible. First and foremost, I would like to thank my adviser, Andy Baker, for his training, mentorship, and continued support during my time at CU. I would also like to thank several other faculty members at CU who taught me so much and pushed me to become a better scholar: Joe Jupille, Carew Boulding, Jennifer Fitzgerald, and Jenny Wolak. I am also grateful for three professors from my undergraduate institution who helped foster my interest in political science and encouraged me to apply for graduate school: Alison Johnston, Amy Below, and Sarah Henderson. I am honored that Alison was able to serve on my dissertation committee.

In addition to the faculty who helped me accomplish this great achievement, I would like to thank my friends and peers in the political science department who I embarked on this journey with. Throughout my five years at CU, the members of my cohort have been a continued source of friendship, support, laughs, and lively debate. I also appreciate the friendship of others in my graduate program including Hannah Paul, Kimi Killen, Brett Bessen, and Zoe Moss.

Lastly, I am deeply indebted to my family. My parents have always encouraged me to follow my passions in life and have been a constant source of support. I am especially grateful to my wife, Katie, who not only supported me through grad school in every way imaginable but helped me persevere when I wanted to give up (several times). Without Katie's love and support, I know that I would not be where I am today.

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## 1 Introduction

#### 1.1 Introduction

Over the past four decades, advanced economies have undergone a dramatic transformation. The combination of technological change and ever-increasing globalization has created a "new geography of jobs" (Moretti, 2012), with economic activity in advanced economies now centering around services and human capital instead of the industrial sector. This economic shift has had varied impacts on the economic fortunes of subnational regions in developed countries. Since the 1980s, many formerly prosperous rural and manufacturing regions in wealthy democracies have suffered steady economic decline and depopulation (Autor et al., 2013; Rickard, 2020; Rodríguez-Pose, 2018). In contrast, large metropolitan areas, where the service sector is primarily located, have experienced tremendous economic gains during this time, as economic activity increasingly agglomerates in these regions. The concentration of economic activity and growth in just a few regions has led to a considerable rise in regional inequality in wealthy democracies around the world over the past forty years (Gbohoui et al., 2019; Iammarino et al., 2019; IMF, 2019; OECD, 2019), reversing progress made toward regional economic convergence during much of the 20th century (Logan et al., 2021; Rosés & Wolf, 2021).

The 2008 Global Financial Crisis further exacerbated already large regional disparities in many developed countries. In general, the dynamic economies of large metropolitan regions have bounced back relatively quickly from the financial crisis, accounting for much of the economic growth that has occurred in advanced economies post-crisis (Hendrickson et al., 2018; IMF, 2019; McCann, 2016). But many rural and post-industrial regions have struggled to return to precrisis levels of economic productivity and employment (Fratesi & Rodríguez-Pose, 2016; Gray

& Barford, 2018; McCann, 2016). As a result, these economically lagging regions have fallen further and further behind the most economically prosperous regions in the years since the financial crisis (Cörvers & Mayhew, 2021; Garcilazo et al., 2021; Gbohoui et al., 2019). Coinciding with this widening of regional economic disparities in the years following the crisis, many wealthy democracies have experienced a notable increase in electoral support for populism and other anti-establishment political movements in the past decade. In such countries, anti-establishment support has been strongest and most concentrated in the economically lagging rural and post-industrial regions (e.g., Adler & Ansell, 2020; Broz et al., 2021; Essletzbichler et al., 2018; Rodríguez-Pose, 2018). This concentration of anti-establishment electoral support in these regions has led some scholars to claim that there is a so-called "geography of discontent" (e.g., Dijkstra et al., 2020; McCann, 2020; Rodríguez-Pose, 2018).

Is rising regional inequality in wealthy democracies a source of political discontent? While political scientists have grown increasingly concerned about the potentially deleterious effects of rising income and wealth inequality on democracy (Anderson & Singer, 2008; APSA Task Force on Inequality and American Democracy, 2004; Beramendi & Anderson, 2008; Scheve & Stasavage, 2017; Solt, 2008), the large and widening regional economic disparities that exist in many wealthy democracies have received very little attention until quite recently. It was only after scholars and political commentators identified a pronounced geographic pattern in electoral support for "Leave" in the United Kingdom's 2016 Brexit referendum and in the support for Donald Trump in the 2016 U.S. presidential election that the notion of a geography of [political] discontent emerged. Though, similar spatial patterns of anti-establishment electoral support have since been identified in other wealthy democracies (e.g., Di Matteo & Mariotti,

<sup>1</sup> 

<sup>&</sup>lt;sup>1</sup> Some notable exceptions including studies that examine the relationship between regional inequality and civil conflict (e.g., Østby et al., 2009) and Cramer Walsh's (2016; 2012) research on rural resentment in Wisconsin.

2021; Dijkstra et al., 2020; Essletzbichler et al., 2021; Patana, 2021), the potential political and social consequences of rising regional inequality remain underexplored. In this dissertation, I build on existing research by directly examining the effect of widening regional economic disparities on individual political attitudes both cross-nationally and in one of the most regionally unequal countries in the developed world, the United Kingdom.

#### 1.2 Outline of the dissertation

This dissertation is comprised of three articles. While each article is intended as a standalone article, exploring unique a unique research question, the three articles work together to provide a more complete answer to the underlying research question of the overall dissertation project. In Chapter 2, the first of the three articles, I explore whether the recent widening of regional economic disparities in the UK has increased the political salience of the issue among the British public. Lacking adequate survey data to directly assess the public issue salience of regional inequality over time, I rely on the amount of newspaper coverage devoted to the issue each year as a proxy for the issue's salience among the public in that year. A content analysis of the Guardian's coverage from 2000-2021 reveals that the amount of coverage the paper devoted to the issue of regional inequality in the UK nearly doubled during this twenty-two-year period, with much of the increase in coverage occurring in the years following the global financial crisis. I supplement this content analysis with an examination of individual perceptions of regional inequality in England over the past twenty years using original survey data. I find that a large majority of English residents believe that regional economic differences in England have become larger over the past two decades. Together, these findings suggest that citizens are not only aware of their country's rising regional inequality, but that regional inequality is becoming an increasingly important political issue.

Chapter 3 considers whether regional inequality is source of political discontent. In this chapter, I argue that regional economic inequalities represent an inequality of opportunity and are likely to be perceived as unfair or unjust by democratic citizens, particularly by those individuals who live in economically lagging regions, contributing to their dissatisfaction with democracy. Using a series of multi-level models and survey data from the 2018 European Social Survey, I examine the relationship between regional economic disparities and individual satisfaction with democracy in thirteen Western European countries. Consistent with expectations, I find that satisfaction with democracy is positively correlated with the relative economic prosperity of one's region. Individuals that reside in regions that are less economically prosperous than their country's average are less satisfied with democracy than those living in relatively prosperous regions, regardless of their own household's income level. I also find that regional inequality (measured at the country-level) is negatively associated with individual satisfaction with democracy. On average, citizens of regionally unequal countries are less satisfied with democracy than those who live in more regionally balanced countries. The findings of this chapter suggest that regional inequality is not only a source of political dissatisfaction among the residents of economically lagging regions but may also be contributing to political discontent among the residents of relatively prosperous regions in countries with large regional disparities.

Building on the findings of Chapter 3, Chapter 4 directly examines *why* individuals residing in economically lagging regions are more likely to be politically discontented than those in relatively prosperous regions. In this chapter, I argue that regional economic disparities are likely to be perceived as unfair or undeserved by residents of lagging regions, resulting in feelings of group relative deprivation. It is these feelings of group relative deprivation that I

argue leads to support for anti-establishment political causes and broader political dissatisfaction. I test this theory using an original survey experiment administered online to residents of England in July of 2021. In an effort to experimentally induce feelings of relative deprivation, participants in the primary treatment group were asked to compare their region to the most economically prosperous region of England. However, against expectations, participants asked to make these upward comparisons did not express greater feelings of relative deprivation than those participants in the other experimental groups. Nor do I find any evidence suggesting that these individuals were more politically discontented than other participants. Thus, in this chapter I am unable to identify the causal mechanism linking the economic decline of one's region to their dissatisfaction with the political status quo.

Chapter 5 concludes by discussing the contributions and policy implications of the dissertation and suggesting potential avenues for future research.

# 2 The Rising Political Salience of Regional Inequality in the United Kingdom

#### 2.1 Introduction

Across a variety of metrics, the United Kingdom is one of the most regionally unequal countries in the developed world (McCann, 2016, 2020). Large regional disparities exist not only in terms of incomes and economic productivity but also in terms of health outcomes and general well-being (Buchan et al., 2017; Doran et al., 2004; McCann, 2016). While London and its neighboring regions in the South of England have long outperformed the North of England and the other nations of the UK economically, economic growth in London and the rest of the South of England has dramatically outpaced growth in the other regions in the country since the 1980s, fueling a rise in regional inequality (Gardiner et al., 2013; Geary & Stark, 2016). In the years since the 2008 Global Financial Crisis, the already large regional economic disparities that exist in the UK have only widened further (Gray & Barford, 2018; McCann, 2016; Sensier & Devine, 2020). In response, current Prime Minister Boris Johnson has made closing the country's regional disparities a domestic policy priority of this government, promising to "level up" all areas of the country (Holton & Sandle, 2022; Newman, 2021).

Has the widening of already large regional economic disparities in the past few decades increased the political salience of regional inequality in the United Kingdom? Despite these recent trends, we know surprisingly little about the political salience of regional inequality among British citizens. Virtually all the existing studies that assess individual attitudes toward economic inequality focus on interpersonal inequalities of income and/or wealth, neglecting attitudes toward economic inequalities that are geographic in nature. One recent study does find that Britons are more concerned about regional inequalities than any other type of inequality in the UK (Duffy et al., 2021), but it is unable to speak to the issue's salience over time;

specifically, whether the perceived political importance of regional inequality has increased alongside the widening of regional economic disparities in recent decades.

In this study, I examine whether the political salience of regional inequality in the UK has increased over the past few decades. Lacking panel surveys or repeated cross-sectional surveys that capture the individual political salience of regional inequality, I rely on newspaper coverage of regional inequality by *The Guardian* as a measure of the issue's salience amongst the public over time. Given the media's powerful role as an agenda-setter (Iyengar, 1987; McCombs & Shaw, 1972, 1993), media coverage has been used as a measurement of an issue's political salience among the public in past studies (e.g., Canes-Wrone & De Marchi, 2002; Collins & Cooper, 2012; Edwards et al., 1995; Eshbaugh-Soha & Peake, 2005; Hutter & Grande, 2014). I find that from 2000-2021, *The Guardian*'s coverage of regional inequality in the UK nearly doubled – with much of this increase in coverage occurring in the years following the global financial crisis. I supplement this content analysis with an analysis of survey data from an original survey of English respondents conducted in July of 2021 in which I explore perceptions of regional inequalities in England. I find that a majority of respondents believe that regional economic differences in England have become larger over the past twenty years. Together, these results suggest that regional inequality has become more politically salient amongst the British public as regional economic disparities have widened over the past few decades.

In finding that rising regional inequality in the UK has increased the political salience of the issue, this study provides some insights for understanding electoral politics in the United Kingdom and in other countries where regional inequalities are increasing. Issues that are politically salient among the public tend to dominate a country's politics. These issues not only weigh heavily in voters' evaluations of political candidates and ultimately, their vote choice (É.

Bélanger & Meguid, 2008; Edwards et al., 1995; Niemi & Bartels, 1985; RePass, 1971), but the government tend to be most responsive to issues the public deems especially important (Givens & Luedtke, 2005; Hobolt & Klemmensen, 2005). As regional inequalities continue to grow in the UK and other wealthy democracies, the findings of this study suggest that regional inequality may play a more central role in electoral politics.

This article proceeds by first describing regional economic inequality in the UK and its recent trends. I then justify the use of newspaper coverage as a proxy for political salience before examining *The Guardian*'s coverage of regional inequality from 2000-2021. After establishing that *The Guardian*'s coverage of the issue has increased substantially during this twenty-two-year period, suggesting the growing salience of regional inequality amongst the British public, I analyze English respondents' perceptions of regional inequality over the past twenty years. The article then concludes with a discussion of the study's implications and suggestions for future research.

# 2.2 Regional inequality in the United Kingdom

Neoclassical economic thought predicts that as a country develops economically, its regional economic disparities will close and the economic productivity of the regions will eventually converge (e.g., Barro et al., 1991; Barro & Sala-i-Martin, 1992; Sala-i-Martin, 1996). Consistent with this theory, Rosés & Wolf (2021) find that for much of the 20<sup>th</sup> century, many European countries experienced regional economic convergence, particularly during Europe's so-called "Golden Age" of economic growth from 1950-1973. But this long trend of regional economic convergence in Europe came to an end in the 1980s. Over the past four decades, many European countries and advanced industrial economies in other parts of the world have experienced a dramatic rise in regional inequality, as globalization and deindustrialization

(among other factors) has concentrated economic activity in a just few regions where the service sector is primarily located (Gbohoui et al., 2019; Iammarino et al., 2019; Rosés & Wolf, 2021). The widening of regional economic disparities over the past four decades has been particularly pronounced in the United Kingdom.

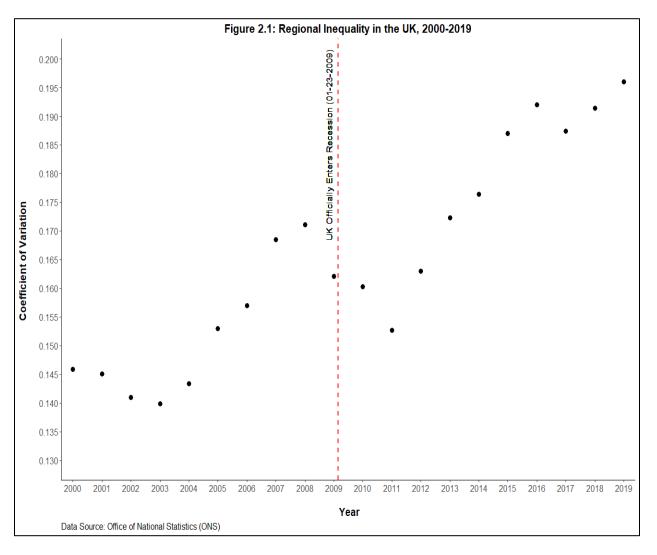
The UK has long had a regionally unbalanced economy (Geary & Stark, 2016). For much of the country's history, economic activity has primarily been concentrated in England, resulting in stark inequalities between England and the other constituent nations of the United Kingdom (Hechter, 1975). But long-standing regional economic disparities also exist within England. Despite the economic prosperity brought to the North of England with the industrial revolution, the South of England re-established itself as the economic "core" of England in the late 19th century and has since remained economically dominant. In the early years of the 20<sup>th</sup> century, the North of England's export-oriented economy was hit hard by the collapse of world markets, while the South of England attracted many of the new industries that emerged during the interwar years, widening the so-called "north-south divide" of England. (Giovannini & Rose, 2020; R. L. Martin, 2004; Scott, 2007). But just as other European countries experienced some degree of economic convergence during the 20<sup>th</sup> century, so did the UK. From 1950-1971, the regions outside of the South of England experienced greater economic growth than London and the rest of the South, helping narrow the country's regional economic disparities (Geary & Stark, 2016).

However, the country's experience with regional economic convergence was short lived. Since the 1980s, the UK's regional economic disparities have widened substantially (Geary & Stark, 2016; McCann, 2016). Deindustrialization brought on by globalization and technological change led to the collapse of the industrial sector and a dramatic rise in unemployment in the

UK's traditionally industrial communities in Scotland, Wales, and the North of England in beginning in the late 1970s (Geary & Stark, 2016; R. L. Martin, 2004; Rice & Venables, 2021). The devastating effects of deindustrialization in these communities were further accelerated by the Thatcher government's adoption of neoliberal economic reforms that cut public sector employment and other sources of government financial support to these impacted regions (Hudson, 2013; R. L. Martin, 2004). Although the regions in the South of England were also hit by deindustrialization, they have been the primary benefactors of the economy's shift to a service-based economy over the past few decades, with a bulk of the economic activity connected to the knowledge economy and the service sector concentrating in London and the other regions in the South of England (Giovannini & Rose, 2020; R. L. Martin, 2004). Since the UK's shift from an industry-based economy to a service-based economy in the last few decades of the 20<sup>th</sup> century, economic growth in London and its neighboring regions has far out-paced growth in other parts of the country, fueling a dramatic rise in the country's regional inequality over the past forty years (Gardiner et al., 2013; McCann, 2016; Rice & Venables, 2021).

The fallout of the 2008 Global Financial Crisis further exacerbated the country's already large economic disparities. While the dynamic regional economies in the South of England experienced relatively quick recoveries from the financial crisis, many communities in other parts of the country have struggled to return to pre-crisis levels of economic productivity (McCann, 2016). Beside variations in the economic resilience of the UK's regional economies (R. Martin et al., 2016; Sensier & Devine, 2020), the widening of regional economic disparities in the fallout of the crisis can also be attributed to the pain of crisis-related austerity cuts primarily being felt in regions with already underperforming economies, as these regions were generally the most reliant on the public sector before the crisis (Fetzer, 2019; Gray & Barford,

2018; Innes & Tetlow, 2015). Figure 2.1 below depicts the UK's notable rise in regional inequality in the year following the global financial crisis. For this figure, the UK's annual level of regional inequality, measured as a coefficient of variation (CV),<sup>2</sup> is calculated at the OECD's TL2 regional level.<sup>3</sup>



<sup>&</sup>lt;sup>2</sup> The coefficient of variation is a widely used measure of regional inequality that calculates the dispersion of average regional income levels relative to the national average, with each region's deviation from the national average weighted by its share of the national population (Ezcurra & Rodríguez-Pose, 2009; Williamson, 1965). A CV of 0 implies perfect regional inequality while higher CVs imply greater regional inequality. See Appendix A.1 for the coefficient of variation formula and the data sources used to calculate these values.

<sup>&</sup>lt;sup>3</sup> The UK has 12 regions at the OECD TL2 regional level, the highest level of regional aggregation. These 12 regions are: North West England, North East England, Yorkshire and the Humber, West Midlands, East Midlands, South West England, London, South East England, East of England, Wales, Scotland, and Northern Ireland.

Figure 2.1 shows that between 2000 and 2019, the UK experienced a notable rise in regional inequality. In the first few years of the 2000s, the annual level of regional inequality remained mostly stable – ranging between a CV of .140 and .145. In the lead-up to the financial crisis, the country experienced a sharp rise in regional inequality, resulting in a CV of over .170 in 2008. While there was some degree of economic convergence in the years during and immediately after the UK's recession, uneven recoveries to the global financial crisis led to a rise in regional inequality in the years that followed. From 2012-2019, regional inequality in the UK steadily increased, climbing from a CV of ~ .160 in 2012 to a CV of nearly .2 in 2019. As a result of this recent widening of the UK's already large regional economic disparities, the UK is now one of the most regionally unequal countries in the developed world (McCann, 2016, 2020).

## 2.3 Newspaper coverage as a measure of public issue salience

In the previous section, I showed that the UK's regional economic disparities have widened substantially in the past two decades. But has the country's rising regional inequality in recent years increased the political salience of regional inequality among the British public? The most common way to assess the public salience of a given political issue is using survey items that ask survey respondents what they think is "the most important problem" facing their country (or similar survey items). While the reoccurring British Election Study features "the most important problem" survey item, individuals' responses to this open-ended question are grouped into broader categories such as "the economy", "politics", or "inequality", preventing researchers from assessing the salience of more specific issues, such as regional economic inequality, over time. Unable to utilize this common measurement for public political salience in this study, I argue that the amount of coverage regional inequality receives in the British press is a reasonable substitute for measuring the issue's salience among the British public.

Busy living their own lives and lacking direct experience with the political world, many individuals are largely inattentive to politics (Converse, 1990; Kinder, 2004; Lippmann, 1925, 1922/1965). Much of what individuals do know about politics is learned indirectly, whether through political campaigns or the media. As one of the most important sources of political information in a democracy, the media plays an important role in shaping the way we think about politics. In selecting which political issues to devote attention to, it has long been argued that the media's most powerful influence on public opinion is its ability to set the political agenda (Lazarsfeld & Merton, 1948; McCombs & Shaw, 1972, 1993; Schattschneider, 1960). Cohen (1963) succinctly communicates the public agenda-setting hypothesis stating, "while the press may not be successful most of the time in telling people what to think, it is stunningly successful in telling its readers what to think about" (p.13).

When a given political issue is covered extensively in the news, it is argued that this issue and its related information are more cognitively available or "top-of-mind" for the individual (Tversky & Kahneman, 1973; Zaller, 1992), thereby playing a prominent role in the individual's subsequent political evaluations and considerations (Iyengar & Kinder, 1987; Kinder, 1998; Krosnick & Kinder, 1990). As a result, countless studies have found in a variety of contexts that when a political issue is highly prioritized in the media, whether in print or on the television, it tends to become an important political issue in the minds of citizens (Boukes, 2019; Dursun-Ozkanca, 2011; Iyengar & Kinder, 1987; McCombs & Shaw, 1972; McLaren et al., 2018; Soroka, 2003). Relatedly, past research has also found that political issues that dominate the news are particularly influential in shaping voters' evaluations of political candidates and ultimately, their vote choice—a phenomenon commonly referred to as priming (e.g., Hart & Middleton, 2014; Iyengar & Kinder, 1987; Krosnick & Kinder, 1990; Miller & Krosnick, 2000;

Stevens & Karp, 2012; Stoker, 1993). Overall, existing studies of the media's influence on public opinion have consistently demonstrated that the media is particularly effective in directing the public's attention toward certain political issues. Given the news media's "stunning success" in telling its readers think about, past research has used newspaper coverage of a given political issue as an alternative way to measure the issue's salience among the public (e.g., Canes-Wrone & De Marchi, 2002; Collins & Cooper, 2012; Edwards et al., 1995; Eshbaugh-Soha & Peake, 2005; Hutter & Grande, 2014).

Despite decades of evidence supporting the media agenda-setting hypothesis, there are challenges to this popular theory. Some critiques of the theory do not fully reject the notion that the media plays an important role in directing the public's attention toward certain political issues but argue that the media's theorized role as the dominant agenda-setter is overstated. Scholars in this camp instead argue that the political agenda is set by the interaction of multiple societal actors including the media, political elites, and the public (e.g., Bartels, 1996; Dalton et al., 1998; Gilardi et al., 2022). Other critiques of the media agenda-setting hypothesis question the proposed direction of the causal relationship between media coverage and public issue salience. Rather than the media directing the public's attention toward certain political issues, recent research suggests that the causal arrow may go the other direction - the media reports on issues that are most salient to the public (e.g., Hopkins et al., 2017; Ragas et al., 2014; Soroka et al., 2015). However, for the purposes of this study, it is less important if the media is the initiator of the political agenda. Whether the media reports on a given issue, thereby increasing the salience of the issue among the public and/or other political actors, or the media is mostly covering issues that are already important to the public, increased coverage of a given issue over time would still suggest that the issue is becoming more politically salient among the public.

The changing media environment in recent years has also led to some challenges to the media agenda-setting hypothesis. Many of the existing studies that find support for the hypothesis examine the effect of newspaper coverage (or broadcast news coverage) on issue salience among the public. But in the age of social media and a media market in which the viewer/reader has an ever-expanding menu of choices, many have questioned whether the traditional media sources, like newspapers, still have a notable influence on public opinion (Boynton & Richardson, 2016; McCombs et al., 2014). Despite the rise of social media, recent analyses find that newspapers are still where most non-breaking news originates (e.g., Harder et al., 2017; Su & Borah, 2019). Further, the introduction of more news sources to the public does not appear to have weakened the agenda-setting power of traditional news media, as the traditional news media exerts a strong influence on the news agendas published on social media and in other news sources (Ceron et al., 2016; Djerf-Pierre & Shehata, 2017; Gilardi et al., 2022; Rogstad, 2016; Russell Neuman et al., 2014). Thus, despite dramatic changes to the media environment over the past few decades, coverage of a given issue by prominent newspapers should still influence the perceived importance of that issue among the public, whether directly or indirectly.

Decades of research has established that the news media, in selecting which political issues to devote more coverage to, has a powerful influence on shaping what issues the public deems important. Lacking adequate survey data to assess the public salience of regional inequality in the UK over time, I argue that the amount of coverage devoted to the issue of regional inequality each year by a prominent British newspaper serves as a reasonable measure of the issue's salience among the public in that year. Therefore, to answer the study's motivating question of whether regional inequality's salience increased among the British public over the

past few decades, I examine the amount of newspaper coverage devoted to the issue in a prominent British newspaper over the past twenty-two years in the following section.

## 2.4 Coverage of regional inequality in *The Guardian*, 2000-2021

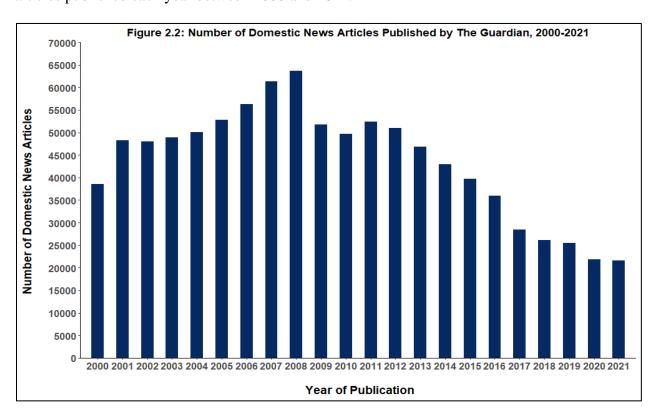
This analysis aims to assess the salience of regional inequality in the UK through an examination of its coverage in the British press over the last two decades. More specifically, this study analyzes the proportion of articles describing regional inequalities in *The Guardian* from 2000-2021 using a dictionary-based approached. *The Guardian* is one of the most prominent British newspapers and is read around the world. While there may be concerns that *The Guardian*'s center-left political ideology means it will be more likely to cover regional inequality than papers with different ideological leanings, previous analyses comparing the coverage of right-leaning and left-leaning newspapers finds that outside of the coverage of scandals involving out-partisans, the differences in the amount of coverage that papers of opposite ideological leaning devote to a given issue are minimal (Budak et al., 2016; D'Alessio & Allen, 2000; Kayser & Peress, 2021; Sanders et al., 1993). Thus, the amount of coverage *The Guardian* devotes to the issue of regional inequality should reflect the amount of coverage the issue receives in other UK broadsheets.

The Guardian articles used for this analysis were retrieved using The Guardian's API with the help of the 'guardianapi' R package.<sup>4</sup> This API allows users to retrieve the text of The Guardian's published content and associated metadata using keyword search.<sup>5</sup> Using this API, I retrieved all content published by The Guardian between January 1<sup>st</sup>, 2000 and December 31<sup>st</sup>, 2021. After retrieving all content published by The Guardian during this twenty-two-year period,

<sup>&</sup>lt;sup>4</sup> The 'guardianapi' R package allows users to access *The Guardian* 's API directly in R. See <a href="https://open-platform.theguardian.com/">https://open-platform.theguardian.com/</a> for information on *The Guardian* 's open-platform API.

<sup>&</sup>lt;sup>5</sup> This includes content published in the Observer, *The Guardian* 's Sunday paper.

I first removed all content that was not categorized as an article. I then removed articles appearing in sections of the newspaper unlikely to cover political or economic news, such as the travel or sports section of the paper, leaving articles that either appear in the 'news' or 'opinion' sections of the paper. Finally, to better ensure that the articles retrieved refer to regional inequality within the UK as opposed to regional inequality in other countries or inequalities between world regions, I excluded articles that appeared in the "world", "global development", "US news", or "Australia news" subsections of the paper. Even in excluding this content, the final sample of used for analysis consists of 961,446 domestic news articles published by *The Guardian* in the period of this study's focus. Figure 2.2 plots the number of domestic news articles published each year between 2000 and 2021.



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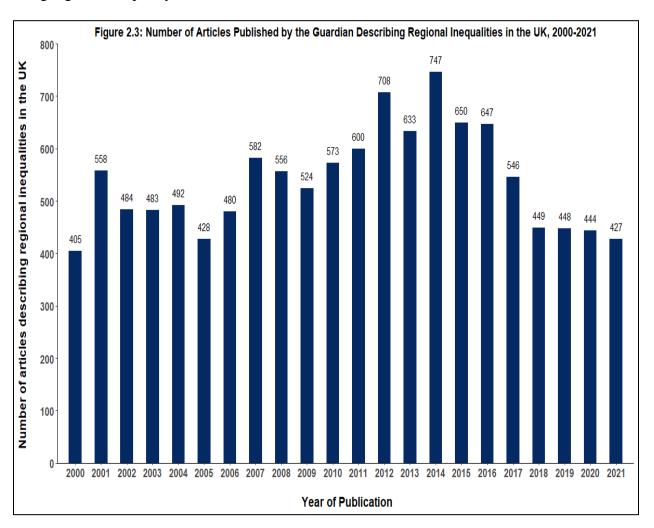
<sup>&</sup>lt;sup>6</sup> Due to concerns that *The Guardian's* left-leaning ideology would be most visible in the 'opinion' section of the paper, I also performed the analysis with only the 'news' section included. The results of this analysis do not vary too significantly from the results illustrated in Figure 2.4. Though there is a more pronounced dip in coverage in the years before the financial crisis, the paper's coverage of regional inequality generally increased over time - particularly in the years following the financial crisis. The results of the analysis can be found in Appendix A.2.

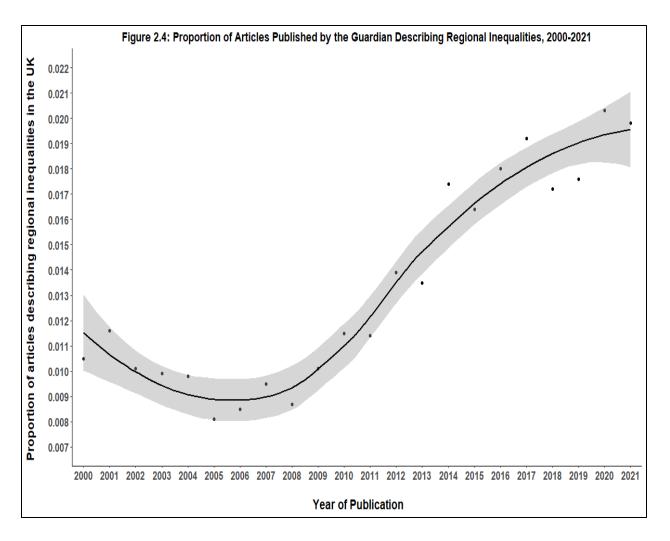
To identify the articles that cover regional economic disparities in the United Kingdom from the entire sample of over 960,000 articles, I used *The Guardian API's* keyword search function to retrieve articles that included the world 'region' (or related words) and 'inequality' (or other synonyms) in the text of the article, ultimately creating a smaller subset of "relevant" articles to work with.<sup>7</sup> In identifying potentially relevant articles based on whether the text of the article contains the word 'region' and 'inequality' (or a synonym), this analysis employs a dictionary approach. Dictionary approaches, such as keyword counting or word score models, are some of the most common methods in text analysis due to their versatility and relative simplicity (Barberá et al., 2021; Grimmer & Stewart, 2013). Rather than using the entire text of a document for classification, these approaches classify an entire document as "relevant" based on the presence and/or frequency of keywords designated by the researcher. In basing the classification of documents solely on whether keywords are present, this approach ignores word order and the overall subject of the text. Using this approach, 11,864 articles were identified as containing a combination of the relevant keywords and are thus, classified as describing regional inequalities in the UK. Figure 2.3 below plots the number of articles describing regional inequalities published by *The Guardian* between 2000-2021.

While Figure 2.3 shows the number of articles describing regional inequalities that were published each year, this figure is less helpful in establishing how much coverage *The Guardian* devoted to this issue during the twenty-two-year period because the total number of domestic news articles published each year during this period varied substantially (as seen in Figure 2.2). Thus, Figure 2.4 plots the proportion of domestic news articles published each year that describe regional inequality in the UK with loess smoothing and 95% confidence intervals included. From

<sup>7</sup> For the search query used, see Appendix A.3.

2000-2009, the amount of coverage *The Guardian* devoted to the issue of regional inequality in *The Guardian* was mostly consistent year-after-year, with a slight drop of coverage coinciding with the beginning of the Iraq war in 2003. But as regional economic disparities in the country widened in the fallout of the global financial crisis, we observe a notable increase in *The Guardian*'s coverage of the issue. From 2009-2021, *The Guardian*'s coverage of regional inequalities in the UK nearly doubled – accounting for roughly 2% of all domestic news articles published in 2021. This considerable increase in coverage in the past decade suggests that the issue of regional inequality has become more politically salient in response to the country's rising regional inequality.





In examining the coverage of regional inequality in specific years between 2000-2022, there are a few notable spikes in coverage in the same years in which political issues with regional dimensions dominated British politics. In 2014, *The Guardian*'s coverage of regional inequality spiked to over 1.7% of all domestic news articles published from around 1.3% of all articles published in the previous year. It was in September of 2014 that Scotland held a referendum on its independence. Ultimately, Scottish voters rejected independence and Scotland remains a part of the United Kingdom. However, many of the arguments in favor of Scottish independence focused on perceived inequalities between Scotland and the South of England (London included) in terms of citizens' average economic standing/well-being and government spending on the regions (Engelhart, 2014; McCann, 2016). This referendum reignited political

discourse around the issues of regional inequality and regional political autonomy throughout the United Kingdom (e.g., Greenslade, 2014; Sandle & Young, 2014), likely explaining the spike in *The Guardian*'s coverage of regional inequalities in this year.

Another spike in coverage occurred in 2017, in the fallout of the UK voters' decision to leave the European Union in June of 2016. In analyzing the voting patterns of Brexit supporters and the vote for Donald Trump in November of 2016, many scholars and commentators noted a distinct geographical pattern. The regions with the highest vote share for these anti-establishment political causes were the economically lagging regions (Broz et al., 2021; Rodríguez-Pose, 2018; Spicer, 2018). Thus, a common narrative has emerged that individuals living in the places "left behind" economically are aggrieved and a political force to be reckoned with. This narrative has since dominated discussions of electoral politics in the UK, U.S., and other Western European countries, potentially explaining the increased coverage of the UK's regional economic disparities in 2017.

Finally, regional inequality received the most coverage in *The Guardian* in 2020. In this year, articles describing regional inequalities in the UK accounted for 2% of all domestic news articles published. There are a few possible explanations for this relatively high coverage of regional inequality in 2020. Following his party's electoral landslide in the 2019 general election, Prime Minister Boris Johnson reiterated his party's promise to "level up" all areas of the country in his December victory speech ("After Election Victory, Boris Johnson Says 'We Are Going to Unite," 2019). This prioritization of closing regional economic disparities by the current government not only brought further attention to the issue of regional inequality but sparked debate around the viability of the government's "levelling up" plan and how best to address the country's regional disparities (e.g., Partington, 2020; Wolf, 2020). The emergence of

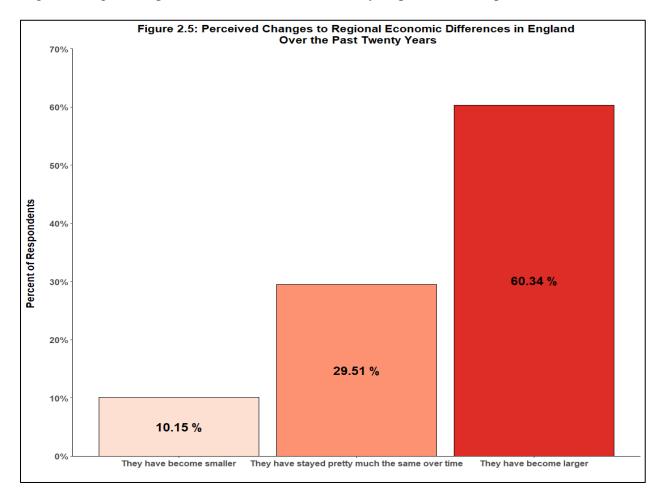
Covid-19 in 2020 also likely increased the salience of the country's existing regional inequalities. With the North of England hit hardest by the early waves of the pandemic ("Coronavirus," 2020a; Dorling & Smith, 2020), many regional leaders and commentators feared that Covid-19 would not only undermine the government's "levelling-up" agenda but further exacerbate the country's regional economic disparities (e.g., Blakeley, 2020; "Coronavirus," 2020b; Pidd, 2020).

In this section, I explored news coverage of regional inequality in the UK over the past two decades in the most read newspaper in Britain, *The Guardian*. I found that *The Guardian*'s coverage of the issue nearly doubled during this period, with much of the increase in coverage occurring between 2010-2021. This notable rise in coverage, particularly in the past decade, coincides with a widening of economic disparities between the regions of the UK in the aftermath of the global financial crisis. I argue that this increase in the coverage of regional inequality over the past few decades suggests that the political salience of the issue has increased among the public. This argument is further supported by spikes in the coverage of regional inequality in years in which other regional issues dominated British politics.

# 2.5 Perceptions of rising regional inequality in England

In the previous section, I showed that *The Guardian*'s coverage of regional inequality in the UK has nearly doubled over the past two decades, suggesting that the issue's salience among the public has also increased during this time. However, in relying on an indirect measure of public issue salience, I cannot be certain that the media's increased coverage of the issue of regional inequality has actually shifted the public's attention to it. Building on previous research that has consistently found that the media plays a primary role in shaping sociotropic perceptions of the economy (e.g., Boydstun et al., 2018; Gavin & Sanders, 2003; Hetherington, 1996; Mutz,

1998; Sanders & Gavin, 2004), I supplement the previous content analysis with an examination of individuals' perceptions of regional inequality in England over the past few decades using data from an original survey administered to English residents in July of 2021.<sup>8</sup> In this survey, the 1,055 respondents were asked whether they think economic differences across the regions in England over the past twenty years have become: smaller (1), stayed the same (2), or become larger (3). Figure 2.5 plots the distribution of the survey responses to this question.

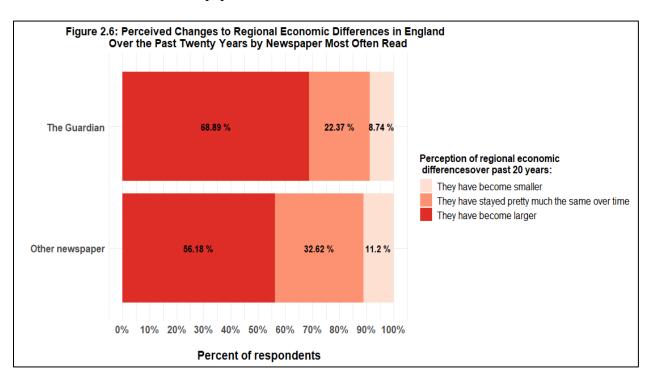


This figure demonstrates that a large majority of respondents have accurate perceptions of England's regional inequality over the past two decades. Just over 60% of participants

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<sup>&</sup>lt;sup>8</sup> This survey data was also used in a survey experiment examining whether regional economic differences are fueling political discontent. For that survey experiment, residents of Scotland, Northern Ireland, and Wales were excluded due to their distinct ethnic identities and nationalist aspirations. Thus, I am only able to speak to perceptions of regional inequality among English residents.

accurately believe that regional economic differences in England have become larger over the past twenty years. Roughly 30% percent of respondents believe regional economic differences in England have stayed the same, while just over 10% inaccurately believing regional economic differences have become smaller during this time. Figure 2.6 reveals that these trends hold regardless of which newspaper the respondent reads most regularly. While readers of the left-leaning Guardian were much more likely to believe that regional economic differences in England have become larger over the past two decades, a majority of respondents who read British newspapers other than *The Guardian* also believe that England's regional economic disparities have widened during this time, suggesting that other British newspapers are also covering the issue of regional inequality. This finding lends support to my previous claim that *The Guardian*'s coverage of regional inequality should reflect the amount of coverage devoted to the issue in other British newspapers.



In this section, I examined individual perceptions of regional inequality in England. I find that a majority of English residents accurately believe that regional economic differences have

become larger over the past few decades. Unable to directly experience regional inequality in their daily lives, it is likely that individuals' perceptions of the country's regional inequality are primarily shaped by the media (Diermeier et al., 2017; E. Kim, forthcoming; McCall, 2013; Mutz, 1998). Thus, the fact that people have accurate perceptions of regional inequality's trends supports the notion that the British press' increased coverage of regional inequality in recent decades has been successful in directing the public's attention to the issue.

#### 2.6 Discussion

In finding evidence that the issue of regional inequality has become more politically salient among the British public in recent decades, this study provides some important context for understanding recent political developments in the UK. Despite the establishment of national assemblies with devolved powers in Scotland, Wales, and Northern Ireland in the late 1990s and voters overwhelmingly rejecting the creation of a regional assembly in North East England in a 2004 referendum, the UK has seen growing demands for regional self-rule in the years following the global financial crisis. Unsatisfied with its current powers, Scotland is poised to hold its second referendum on independence in less than a decade. Rather than revolving solely around issues of national identity like many separatist movements, the desire for Scottish independence is also driven by the perception that Scotland is both politically and economically marginalized by London-rule (Abrams & Grant, 2012; Engelhart, 2014; Pattie & Johnston, 2017). Similarly, as regions in the Midlands and North of England have fallen further and further behind regions in the south, particularly in the past decade, we have seen a growing demand for regional devolution in these regions (Bounds, 2018; Greenslade, 2014; "The UK's Insufficient Embrace of Devolution," 2022). This increased demand for regional devolution and/or independence in the UK's relatively deprived regions over the past decade, just as regional economic disparities

in the country are widening, suggests that the country's rising regional inequality may be a contributing factor in the growing desire for regional self-governance in one of the most centralized states in the developed world.

The UK has also experienced a notable shift in its electoral geography in the past decade that coincides with the country's rising regional inequality. In the 2016 Brexit referendum, individuals residing in the relatively deprived regions of the country were much more likely to vote "Leave" than voters residing in the more prosperous areas of the country (Becker et al., 2017; Colantone & Stanig, 2018a; Hobolt, 2016). Just a few years later in the 2019 general election, Labour's so-called "red wall" that spanned from Wales through the North of England collapsed, as constituencies in these relatively poor regions went to the Conservatives for the first time in decades, fueling an electoral landslide for the Conservatives (Cutts et al., 2020; Fieldhouse et al., 2021). In voting for Brexit and breaking from Labour for the first time in decades, many individuals in the country's relatively deprived regions are signaling their dissatisfaction with the political and economic status quo at the ballot box. Similar geographies of discontent have emerged elsewhere in the developed world in recent years, with electoral support for populist and other anti-establishment political causes concentrating in the economically declining regions of wealthy democracies (e.g., Broz et al., 2021; Dijkstra et al., 2020; Essletzbichler et al., 2018). As regional inequality rises in many advanced industrial economies (Gbohoui et al., 2019; Iammarino et al., 2019), the findings of this study suggests that there will be notable political and social consequences.

#### 2.7 Conclusion

Has the widening of regional economic disparities in the UK in recent decades increased the political salience of the issue among the public? In this study, I examined changes in the political salience of regional inequality from 2000-2021 in the UK. Using coverage of the issue of regional inequality in *The Guardian* as a proxy for its salience among the public, I found that the political salience of regional inequality in the UK has increased over the past twenty-two years – particularly in the years following the global financial crisis. This increase in the issue's salience over the past two decades coincides with a period of widening regional economic disparities in the country. In examining individual perceptions of regional inequalities in England, I also found that a large majority of respondents accurately believe that regional economic differences in England have become larger. Together, these results suggest that Britons are not only aware of their country's widening regional economic disparities but that this issue has become more politically salient in recent years.

There is still much to be learned about the political and social consequences of regional inequalities. Despite rising regional inequality in many advanced industrial economies and even larger regional disparities that exist in many less-developed countries (Floerkemeier et al., 2021), we know very little about individual attitudes toward regional inequalities. While many existing surveys now include survey items assessing attitudes and perceptions of income and/or wealth inequalities, few, if any, existing surveys ask participants about other types of inequalities that exist in many wealthy democracies. Thus, future studies and surveys should include survey items that assess individuals' attitudes toward different types of societal inequalities, including inequalities that are geographic in nature.

# 3 Regional Inequality and Dissatisfaction with Democracy in Western Europe

#### 3.1 Introduction

In wealthy democracies around the world, citizens' satisfaction with democracy has been on the decline since the 1990s (Dalton, 2004; Foa et al., 2020; Norris, 2011). In countries like the United Kingdom and the United States – two of the oldest democracies in the world – a majority of citizens now report that they are dissatisfied with the way democracy works in their country (Foa et al., 2020). This recent dissatisfaction with democracy's performance has also been accompanied by rising electoral support for populist and/or anti-establishment political movements in the U.S. and throughout Europe, a further indication of rising citizen discontent with the political status quo (Rooduijn et al., 2016). What is the source of growing dissatisfaction with democracy among citizens of many wealthy democracies in recent decades?

Coinciding with this period of growing democratic discontent in advanced industrial economies, many such countries have also seen economic disparities between their regions widen during this time. Once prosperous rural and manufacturing regions have experienced economic stagnation or even decline in recent decades, as economic activity increasingly agglomerates in a few large metropolitan areas (Gbohoui et al., 2019; Iammarino et al., 2019). It is in these economically lagging regions where anti-establishment movements have received the most electoral support in recent elections and referenda (Adler & Ansell, 2020; Broz, Frieden, & Weymouth, 2020; Rodríguez-Pose, 2018; Spicer, 2018). This study explores whether rising regional inequality in many wealthy democracies is contributing to citizens' dissatisfaction with democracy – particularly for those citizens that live in regions that have been left behind economically.

Scholars have long argued that in violating the core democratic principle of equality, economic inequality is incompatible with democracy (e.g., Dahl, 1971; Schattschneider, 1960). Accordingly, several recent cross-national analyses have found evidence of a negative correlation between national Gini coefficients and citizens' satisfaction with democracy's performance (Anderson & Singer, 2008; Schäfer, 2012; Wu & Chang, 2019) or diffuse support for democracy (Andersen, 2012; Krieckhaus et al., 2014). However, aggregated measures of economic inequality, like Gini coefficients, also capture regional inequality, leaving it unclear which type(s) of economic inequality – individual- and/or regional-level – drives dissatisfaction with democracy.

Explicitly identifying which type(s) of inequality is fueling political discontent is critical, as a growing body of research suggests that many people are willing to accept some forms of economic inequality as legitimate. When inequalities are believed the be the result of variations in individual effort or merit, the existence of economic inequality tends to be accepted as fair by citizens, both rich and poor (Sachweh & Sthamer, 2019; Starmans et al., 2017). But when economic differences are the result of unequal opportunities or other forces outside of an individual's control, these inequalities are no longer accepted as fair or legitimate (Roemer, 1998; Starmans et al., 2017; Stewart, 2005). While economic differences across individuals/households may be justified as meritocratic, the primary drivers of regional economic inequality, such as deindustrialization brought by globalization and technical change, are out of the individual's control (Autor et al., 2016; Iammarino et al., 2019). Yet, the economic prosperity of one's locale (or lack thereof) has a sizable influence on the economic opportunities afforded to an individual (Checchi & Peragine, 2010; Chetty et al., 2014; Perez-Mayo, 2019). Representing an inequality of opportunity, I argue that regional economic disparities are likely to be perceived

as unfair or unjust by citizens, particularly by those individuals residing in less economically prosperous regions. Consequently, I hypothesize that regional inequality contributes to democratic discontent in wealthy democracies.

Using multi-level models and individual-level data from round 9 (2018) of the European Social Survey combined with regional- and country-level data, this study examines whether regional economic inequality undermines individuals' satisfaction with democracy. Consistent with expectations, I find that individuals residing in regions where the average household disposable income falls below the country's regional average are less satisfied with democracy than their fellow citizens residing in more prosperous regions, regardless of their own household's income level. Further, I find that on average, individuals in countries with higher levels of regional inequality have lower satisfaction with democracy than individuals in countries that are more economically balanced across regions. Together, these results suggest that the widening of regional economic disparities in many advanced industrial economies over the past few decades has contributed to citizens' dissatisfaction with democracy.

While many citizens of consolidated democracies express dissatisfaction with their democracy's performance today, a large majority of them still remained committed to democratic principles and believe that democracy is the best form of governance (Inglehart, 2016; Kriesi, 2020; Norris, 2011). This commitment to democratic principles means it is unlikely that rising dissatisfaction with democracy will result in the toppling of democratic regimes in the developed world any time soon. But the presence of numerous so-called "dissatisfied democrats" still poses significant challenges to consolidated democracies. Dissatisfied democrats are less likely to engage in conventional forms of political participation, such as voting (Doorenspleet, 2012; Karp & Milazzo, 2015). When dissatisfied democrats do participate electorally, they tend

to signal their political discontent by casting a vote for a populist part/candidate (Kaltwasser & Hauwaert, 2020; Rooduijn et al., 2016). While some scholars are optimistic that dissatisfied democrats may push politicians to enact reforms that ultimately strengthen democracy (e.g., Dalton, 2004; Norris, 1999), this long-standing political discontent left unaddressed may ultimately undermine the citizens' commitment to democracy as a regime type (Easton, 1965; Linde & Ekman, 2003; Lipset, 1959).

This study advances our understanding of economic inequality in two important ways. First, in shifting the focus away from interpersonal inequality, this study brings to light the political consequences of widening regional economic disparities, a form of inequality that has received minimal scholarly attention in political science. In doing so, this study joins recent research that emphasizes the importance of *place* in shaping political attitudes and behaviors (e.g., Adler & Ansell, 2020; Cramer, 2016; Fitzgerald, 2018). Second, this study reaffirms the important role that considerations of fairness play in shaping citizens' political reactions to economic inequality (e.g., Hochschild, 1981; Kluegel & Mason, 2004; McCall et al., 2017; Trump, 2018).

#### 3.2 Sources of (dis)satisfaction with democracy

Political scientists have long argued that democratic consolidation depends on citizens' support for democracy (e.g., Almond & Verba, 1965; Claassen, 2020; Lipset, 1959). This theorized connection between democratic legitimacy and democracy's survival has driven many to examine under what circumstances do citizens become dissatisfied with democracy in their country. In contrast to more diffuse support for democracy and its principles, satisfaction with democracy is believed to be a "performance-driven attitude" in which citizens consider whether democracy is meeting their expectations (Easton, 1965; Mattes & Bratton, 2007). As such, many

scholars have argued that satisfaction with democracy is linked to the quality of the regime's political and/or economic output. Examining the influence of the democracy's political performance, (dis)satisfaction with democracy has been linked to the presence of corruption (e.g., Anderson & Tverdova, 2003; Dahlberg & Holmberg, 2014), the degree to which the government is representative of the people (e.g., Aarts & Thomassen, 2008; Anderson & Guilory, 1997), and the regime's ability to secure fundamental political rights (e.g., Bratton & Mattes, 2001). Citizens' satisfaction with democracy has also been linked to the regime's ability to deliver strong economic performance, both objective macroeconomic performance (e.g., Clarke et al., 1993; Van Erkel & Van der Meer, 2016) and perceived economic performance (e.g., Armingeon & Guthmann, 2014; Bratton & Mattes, 2001; Dalton, 2004).

While citizens do consider the regime's ability to deliver positive economic and political outcomes in informing their evaluations of the regime's "performance", they also consider whether the regime meets their normative expectations – specifically, whether the regime's actions and the outcomes it produces are fair. The desire for fairness is believed to be a universal trait and emerges at an early age (De Wall, 2009; Starmans et al., 2017). Social justice scholars argue that this desire for fairness shapes individuals' evaluations of political authorities and institutions. In evaluating institutions, individuals not only consider whether the distributional outcomes produced by the institution are fair (i.e., distributive fairness) but also whether the institutional decision-making process is fair (i.e., procedural fairness) (Tyler & Van der Toorn, 2013). When the outcomes generated by an institution and/or the institution's decision-making procedure are perceived as unfair, these violations of individuals' normative expectations of

<sup>&</sup>lt;sup>9</sup> While there are a few longitudinal analyses that link a country's macroeconomic performance over time to citizens' satisfaction with democracy (e.g., Clarke et al., 1993; Van Erkel & Van der Meer, 2016), studies examining the effect of subjective perceptions of the economy on satisfaction with democracy enjoy more consistent empirical support, particularly in advanced industrial economies (Dalton, 2004; Van der Meer, 2018).

fairness can erode the perceived legitimacy of institutions (Tyler, 2006; Tyler et al., 1985; Tyler & Lind, 1992). Although applications of social justice theory to explain citizens' evaluations of democracy have been limited, both evaluations of distributive fairness (e.g., Kluegel & Mason, 2004; Saxton, 2021) and evaluations of procedural fairness have been linked to citizens' (dis)satisfaction with democracy (e.g., Erlingsson et al., 2014; Linde, 2012).

With income inequality on the rise in nearly all wealthy democracies, a few recent crossnational analyses have also established a negative relationship between income inequality, measured using countries' Gini coefficients, and citizens' satisfaction with democracy (Anderson & Singer, 2008; Schäfer, 2012; Wu & Chang, 2019). Though these studies all establish a negative relationship between countries' Gini coefficients and satisfaction with democracy, it is not clear which type(s) of inequality is driving this dissatisfaction. As an aggregated measure of a national income inequality, Gini coefficients capture both between-region income inequality (the distribution of average incomes across a country's regions) and within-region income inequality (the distribution of incomes within each region). While within-region income inequality still accounts for a large share of countries' overall income inequality, the contribution of between-region income inequalities to overall income inequality is increasing, as regional economic disparities have widened significantly in many OECD countries in recent decades (Gbohoui et al., 2019; Iammarino et al., 2019; Rosés & Wolf, 2021). Despite these regional economic trends and recent studies finding that populist/anti-system electoral support is strongest in economically lagging regions (e.g., Adler & Ansell, 2020; Broz et al., 2021; Rodríguez-Pose, 2018), the potential link between rising regional inequality and dissatisfaction with democracy has not yet been in explored. In line with research that emphasizes the importance of fairness

evaluations in shaping the perceived legitimacy of institutions, I argue that regional inequalities are perceived as unfair or illegitimate by citizens, fueling their dissatisfaction with democracy.

### 3.3 Regional inequality as inequality of opportunity

Citizens' evaluations of democracy are not only influenced by the political or economic performance of the regime, but the regime's ability to live up to the citizens' normative expectations. Equality is a fundamental principle of democracy. As such, citizens of democracies not only expect equal opportunities to succeed in life but also expect democracy to help promote economic equality through redistribution (Hooghe et al., 2017; Oser & Hooghe, 2018). Thus, the presence of excessive economic inequality may undermine citizens' satisfaction with democracy because it directly challenges their normative expectations of equality.

The findings of several recent studies lend support to the notion that democracy's (in)ability to live up to its citizens' normative expectations around economic equality influences their evaluations of the regime. Saxton (2021) finds that Latin American respondents who believe their country's income distribution is unfair (i.e., distributive fairness) are less likely to be satisfied with democracy than those who believe the income distribution is fair, particularly in contexts with poor governance. Similarly, Zmerli & Castillo (2015) find that perceptions of distributive fairness shape respondents' political trust in Latin America. Using a sample of respondents from East Asia and Latin America, Wu & Chang (2019) find that the perceived fairness of the income distribution exhibits a stronger effect on individuals' satisfaction with democracy than objective measurements of economic inequality.

However, not all economic inequalities challenge individuals' desire for fairness and equality (Starmans et al., 2017; Trump, 2020). Across a variety of contexts, research demonstrates that people not only tolerate, but even welcome economic inequalities that they

believe to be rooted in differences of individual effort or merit (e.g., Almås et al., 2020; McCoy & Major, 2007; Sachweh & Sthamer, 2019). Relatedly, the presence of or belief in economic mobility, signaling a meritocratic and dynamic economic distribution, is also associated with the acceptance of economic inequalities (e.g., Mijs, 2021; Shariff et al., 2016). This legitimatization of economic differences that are believed to be caused by factors within the control of the individual has consequences for political attitudes, as it has consistently been linked to less support for redistribution (Alesina et al., 2012; Alesina & Angeletos, 2005; García-Sánchez et al., 2020; Kluegel & Smith, 1986).

Individuals will accept economic inequalities as legitimate when there is equality of opportunity, assuring that any economic differences across individuals that do arise can only be attributed to individual differences in effort or merit. But when inequalities are believed to be due to unequal opportunities, they are no longer viewed as fair or just by individuals (Rawls, 1999; Roemer, 1998; Starmans et al., 2017). Accordingly, previous research demonstrates that individuals are more likely to support redistribution when they believe that economic success can be attributed to luck (Alesina & Angeletos, 2005; McCall, 2013) or the opportunities one receives (McCall et al., 2017). This desire to compensate for inequality of opportunity is more than just a manifestation of economic self-interest. The wealthy - against their own self-interest are also more likely to support redistribution when they believe economic differences in their country are rooted in unequal opportunities to succeed (Fong, 2001; H. Kim & Lee, 2018). These findings suggest that it is inequalities of opportunity that are most likely to conflict with democratic citizens' desire for equality and to be perceived as unfair or illegitimate.

I argue that the widening of regional economic disparities in recent decades in many advanced industrial economies represents a challenge to the notion of equality of opportunity,

wherein an individual's economic fortunes are influenced by forces outside of their control. The recent rise of regional inequality in wealthy democracies is largely attributed to global economic forces, such as globalization and automation as a result of technological change (Autor et al., 2016; Iammarino et al., 2019). Further exacerbated by uneven recoveries to the global financial crisis, these trends have led to a few pockets of economic prosperity amidst entire regions of economic despair in many OECD countries. This widening of regional economic disparities has important implications for the economic prospects of individuals, as the economic prosperity of one's place of residence (or lack thereof) heavy influences the economic opportunities available to individuals (e.g., Checchi & Peragine, 2010; Chetty et al., 2014; Perez-Mayo, 2019). Regions with stagnating or declining economies not only have fewer employment opportunities and lower wages than relatively prosperous regions but depending on the level of decentralization in the country, will also see the quality of the region's public goods and services, such as the education system, deteriorate due to an inadequate tax base (Feler & Senses, 2017). Even wealthy individuals suffer from the economic decline of their region of residence, as the value of their largest asset, their home, is intimately tied to the economic prosperity of their locale (D. Adler & Ansell, 2020). In search of better opportunities, wealthy, highly skilled individuals tend to relocate to more prosperous regions, only accelerating the economic deterioration of these struggling regions.

While those with in-demand skills and/or wealth can migrate away from declining regions, many residents of such regions are stuck. As the relatively prosperous regions of a country pull further and further away from the lagging regions, these individuals find themselves priced out of housing in locales with better economic opportunities (D. Adler & Ansell, 2020; Ganong & Shoag, 2017). Even if an individual can afford to move to a more prosperous region,

they still may be reluctant to leave behind their local knowledge and social capital they have acquired over the course of their lives (Fitzgerald, 2018; Gordon, 2018; Lee et al., 2018; Rodríguez-Pose, 2018). It is for these reasons, internal migration has slowed or stagnated in many OECD countries, particularly those with high levels of regional inequality like the UK and the United States (Champion & Shuttleworth, 2017; Ganong & Shoag, 2017; Iammarino et al., 2019).

As regional economic disparities widen in many OECD countries, one's region of residence plays an increasingly large role in shaping their economic prospects. Individuals residing in the economically lagging regions of a country find themselves stuck with limited economic opportunities to no fault of their own, as economic opportunities are concentrated in only a few regions of the country. I argue that this inequality of opportunity is likely to be perceived as unfair or unjust by residents of these lagging regions, contributing to their dissatisfaction with the way democracy works in their country. This argument yields the following hypothesis:

Regional-level hypothesis: The relative economic prosperity of sub-national regions is <u>positively</u> associated with residents' satisfaction with democracy.

While I expect individuals residing in the least economically prosperous regions of a country to express the most dissatisfaction with democracy, it is not just the relatively disadvantaged that believe inequality of opportunity is unfair or unjust. Past studies demonstrate that even the wealthy are supportive of efforts to address economic inequalities (i.e., redistribution) when they are believed to be tied to factors outside of the individual's control (Fong, 2001; H. Kim & Lee, 2018). This suggests that in representing an inequality of opportunity, wide regional economic disparities in a democratic context will be viewed as unfair or illegitimate by all citizens, regardless of whether they live in an economically lagging region

or a more economically prosperous region. Thus, I also argue that on average, countries with higher levels of regional inequality will have lower satisfaction with democracy than countries that are more regionally balanced.

Country-level hypothesis: Regional economic inequality is negatively associated with citizens' satisfaction with democracy.

#### 3.4 Data and methods

In this study, I explore whether regional economic inequality undermines satisfaction with democracy in wealthy democracies. To test this potential relationship, this study examines satisfaction with democracy at the individual-level across sub-national regions and countries. The individual-level data used in this analysis come from round 9 of the European Social Survey (ESS). This round of the ESS was used because it is the most recent round publicly available, with surveys conducted between 2018-2020, and because this round of the ESS records the respondents' region of residence. 10 The regional- and country-level data used in the analysis come from the Organization for Economic Cooperation and Development (OECD). 11 After dropping sub-national regions with less than thirty respondents and respondents with missing data for any of variables included in the models from the analysis, the final sample includes 16,446 individuals residing within 105 subnational regions across 13 Western European countries.<sup>12</sup>

The primary dependent variable in this analysis is individual's satisfaction with democracy. Respondents' satisfaction with democracy was measured using a survey item that

<sup>&</sup>lt;sup>10</sup> While the regions sampled in this wave of the ESS correspond with the European Union's Nomenclature of Territorial Units for Statistics (NUTS), this study ultimately utilizes the OECD's regional classification scheme for all regional-level variables due to data availability. The regions used for this analysis corresponds with the OECD's large (TL2) regions, the highest level of subnational administration for all thirteen countries in the study.

<sup>&</sup>lt;sup>11</sup> For the data source(s) for each contextual variable, see Appendix B.1

<sup>&</sup>lt;sup>12</sup> Countries include: Austria (AT), Belgium (BE), Denmark (DK), Germany (DE), France (FR), Ireland (IE), the

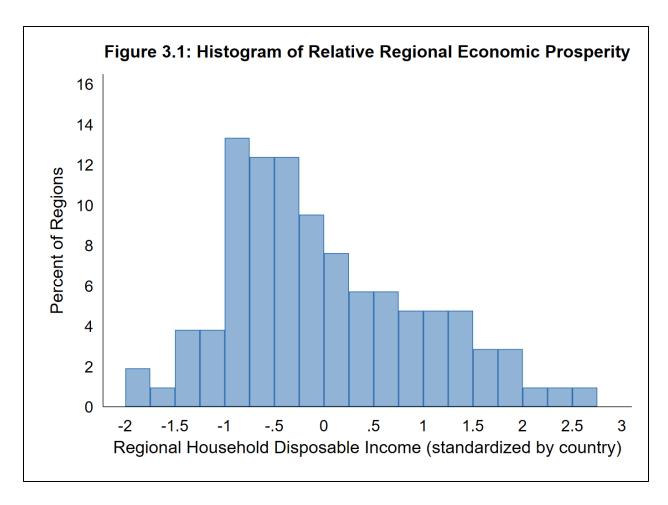
Netherlands (NL), Norway (NO), Portugal (PT), Spain (ES), Sweden (SE), Switzerland (CH), and the United Kingdom (GB). For a list of the sub-national regions sampled, see Appendix B.2

asks, "And on the whole, how satisfied are you with the way democracy works in [Country]?". Responses to this item ranged from "Extremely dissatisfied" (0) to "Extremely satisfied" (10). The "satisfaction with democracy" survey item is arguably the most widely use indicator of support for democracy in the political science literature. While past research has used this survey item to gauge an individual's support for the principles of democracy and the regime more broadly, it is now generally agreed that this survey item better captures a more specific support for democracy, particularly, support for the way that democracy is functioning in practice (Canache et al., 2001; Claassen, 2020; Easton, 1965; Linde & Ekman, 2003). Thus, an individual could be simultaneously committed to the notion that democracy is the best form of governance while also being dissatisfied with the way that democracy is working in their country.

In exploring whether regional economic disparities undermine satisfaction with democracy, this analysis relies on two independent variables. The primary independent variable of this analysis captures the relative regional economic prosperity of respondents' sub-national region, enabling me to examine whether those individuals residing in poorer regions of a country are less satisfied with democracy than their fellow citizens living in more prosperous regions of the country. Using 2016 household disposable income data from the OECD, this variable is measured by calculating the distance between each region's average household disposable income from the average regional household disposable income by country and then standardizing this difference by country. Standardizing this variable by country better allows me to compare regions' relative economic prosperity across countries and addresses the collinearity between this regional-level income variable and the country-level GDP per capita variable used as control variable.

The relative economic prosperity of the 105 sub-national regions included in my sample varies considerably. Figure 3.1 plots the average household disposable income of all 105 subnational regions in my sample relative to their country's average region in z-scores. In this graph, zero on the x-axis represents each country's average regional household disposable income. Thus, regions that are more economically prosperous than their country's average region have positive z-scores while regions that are less economically prosperous than their country's average region have negative z-scores. The histogram in Figure 3.1 shows that nearly 50% of the sub-national regions in my sample have an average regional house disposable income that is between 0 and -1 z-scores from the country average, this suggests that most of the regions in the sample fall are less prosperous than their country's regional average. The poorest region in the sample relative to its country's regional average is the Groningen region in the Netherlands (NL11), with an average regional household disposable income nearly 2 z-scores less than the Dutch regional average. Meanwhile, the wealthiest region in the sample relative to its country's regional average is the Île-de-France region of France (FR1), the region encompassing Paris, with an average regional household disposable income 2.7 z-scores higher than the French regional average.

The other independent variable in this study captures the degree of regional inequality that exists within each country. While there are a variety of ways one could measure economic variation across a country's regions, this study employs one of the most widely used measures of regional inequality in the literature, the coefficient of variation (Ezcurra & Rodríguez-Pose, 2009; Williamson, 1965). The coefficient of variation calculates the dispersion of average regional income levels relative to the national average with each region's deviation from the national average weighted by its share of the national population.



In calculating the coefficient of variation for each country in this analysis, I compared the dispersion of average regional household disposable income levels relative the average national household disposable income using 2016 OECD data. A country's coefficient of variation can theoretically range from 0 (perfect equality) to  $\sqrt{\frac{n-f_i}{f_i}}$ , where region i has all the country's income (Shankar & Shah, 2003).

The coefficient of variation for each country can be calculated with the following equation:

$$cv = \frac{\sqrt{\sum_{i} (y_{i} - \overline{y})^{2} \frac{f_{i}}{n}}}{\overline{y}}$$
where  $cv = \text{coefficient of variation},$ 

$$f_{i} = \text{population of the } i^{\text{th}} \text{ region},$$

$$n = \text{national population},$$

<sup>&</sup>lt;sup>13</sup> Household disposable income per equivalized household in USD (2016 prices, 2016 PPP)

 $y_i$ = average household disposable income of the  $i^{th}$  region,

 $\overline{y}$  = average national household disposable income

In addition to the primary independent variables described above, I also include control variables at the individual-, regional-, and country-levels that may predict an individual's satisfaction with democracy. Building on past research that has found that electoral "winners" are more likely to be satisfied with democracy than electoral "losers" (e.g., Anderson et al., 2005; Anderson & Guilory, 1997), particularly in economically unequal contexts (Han & Chang, 2016), I control for whether the respondent voted for a party that is part of the governing coalition in their country's last national election. I also include controls for the respondents' political ideology and political interest. Past research has found that political conservatives are not only more likely to support the status quo and justify the existing system (Jost et al., 2003; Jost & Hunyady, 2003), leading to higher levels of satisfaction with democracy than liberals, but are also less sensitive to economic inequality than those who lean to the political left (Anderson & Singer, 2008). When it comes to political interest, scholars disagree on whether political interest increases or decreases satisfaction with democracy. Some argue that it is those least interested and engaged with politics that are the most likely to be dissatisfied with democracy (e.g., Almond & Verba, 1965; Anderson & Guilory, 1997; Stoker, 2006), while others argue that it is the most politically active individuals are the most likely to be dissatisfied with democracy, as their expectations for democracy and politics are higher than those less engaged in politics (Norris, 1999, 2011). 14 In addition to these individual-level political factors, I include controls for the respondents' household disposable income and years of education, as well as their sex, age, and where the respondent lives (e.g., big city, country village, etc.).

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<sup>&</sup>lt;sup>14</sup> In testing these competing perspectives, Doorensplet (2012) finds that it is those who are least engaged politically that express the greatest dissatisfaction with the way democracy is working in their country.

At the contextual-levels of analysis, I include control variables that been linked to satisfaction with democracy in previous analyses. At the country-level, I control for each country's overall level of economic development (i.e., GDP per capita). To isolate the effects of regional economic inequality on satisfaction with democracy from the effects of inequality at the country-level, I also include a measure of national-level economic inequality in my analysis. <sup>15</sup> Finally, noting substantial differences in economic performance across regions of a given country, I also control for the unemployment rate at the regional level. <sup>16</sup> For descriptive statistics of all variables at the individual-, regional, and country-levels, see Appendix B.3.

Given the nested nature of my dataset, in which individuals (level 1) reside in subnational regions (level 2) within countries (level 3), I run a series of three-level multilevel linear regression models with random intercepts for each country and region to account for the effects of any unobserved heterogeneity at the contextual levels. Multilevel models not only allow researchers to consider predictors at several levels of analysis in one singular model but failing to account for the nested structure of data could lead to underestimated standard errors, increasing the likelihood of a Type I error (Raudenbush & Bryk, 2002; Steenbergen & Jones, 2002). Multilevel models also allow researchers to examine whether the effects of contextual factors is moderated by individual-level factors with cross-level interactions (Anderson, 2007; Anderson & Singer, 2008; Kedar & Shively, 2005). While the choice to use multilevel models in this analysis is appropriate given the nested nature of my data, it is important to note that having only thirteen observations at the highest level (i.e., country-level) could present some challenges. Though there is no set rule that speaks to how many observations are necessary at each level of analysis

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<sup>&</sup>lt;sup>15</sup> National-level inequality is captured using 2018 Gini coefficients of disposable income (post-transfers)

<sup>&</sup>lt;sup>16</sup> Regional unemployment rates were mean-centered by country to account for collinearity between the unemployment at the regional- and national-levels.

in a multilevel model, lacking sufficient variation and/or having too few observations at a given level of analysis could lead to spurious effects for predictors at that level of analysis due to standard errors/confidence intervals that are biased downward (Stegmueller, 2013). On the other hand, the small sample size at the country-level implies low statistical power at this level of analysis, reducing the chances of detecting a statistical relationship for country-level predictors. Nonetheless, given sufficient sample sizes at the first- and second-levels of analysis and the nested nature of my data, I proceed with the use of a three-level model cautioning readers of the possibility of biased estimates for any country-level predictors. <sup>17</sup>

#### 3.5 Individual- and regional-level results

Table 3.1 reports the results from my analysis of satisfaction with democracy. Model 0 is an empty model that captures the level of variance that exists at each level of analysis. This empty model reveals that a large majority of the variance in satisfaction with democracy is due to differences between individuals – nearly 81% of the total variance is explained by individual-level factors. The other ~19% of total variance is explained by contextual factors, with differences across sub-national regions and across countries accounting for ~2% and ~17% of total variance, respectively. Model 1 introduces individual-level variables, including respondents' demographic information and key political variables. Finally, in model 2 I add the relative regional economic prosperity variable and the contextual control variables in order to test my primary hypothesis that relative regional economic prosperity is positive associated with satisfaction with democracy.

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 $<sup>^{17}</sup>$  It is important to note, small sample sizes at the highest level of analysis do not bias estimates of lower-level predictors (Maas & Hox, 2005; Stegmueller, 2013, 752-753)

<sup>&</sup>lt;sup>18</sup> Just as the estimates for country-level predictors may be biased due to the small sample size, the estimate of the variance component for the country-level may also be biased (Stegmueller, 2013)

Table 3.1: Relative regional economic prosperity and satisfaction with democracy

	Model 0	SE	Model 1	SE	Model 2	SE
Relative regional economic prosperity					0.118***	(0.0435)
Household income			0.0631***	(0.00669)	0.0626***	(0.00669)
Female			-0.0584*	(0.0341)	-0.0593*	(0.0341)
Age at time of survey			0.000117	(0.00104)	0.0000991	(0.00104)
Years of full-time education completed			0.0191***	(0.00432)	$0.0188^{***}$	(0.00432)
Interest in politics			$0.202^{***}$	(0.0210)	0.201***	(0.0210)
Political ideology			$0.0444^{***}$	(0.00829)	0.0443***	(0.00829)
Residence (ref = town or small city):						
Farm or home in countryside			-0.180**	(0.0720)	-0.180**	(0.0720)
Country village			-0.154***	(0.0445)	-0.153***	(0.0445)
Suburbs or outskirts of big city			0.0347	(0.0545)	0.0242	(0.0546)
A big city			0.218***	(0.0556)	$0.205^{***}$	(0.0557)
<b>Previous election (ref = Voted for party in government)</b>						
Voted for party in opposition			-0.603***	(0.0405)	-0.603***	(0.0405)
Did not vote in last national election			-0.263***	(0.0504)	-0.265***	(0.0504)
Regional unemployment (%)					$0.0391^{*}$	(0.0230)
GDP per capita (USD)					$0.0000348^{**}$	(0.0000166)
Gini coefficient					-11.89*	(7.158)
Constant	5.982***	(0.280)	4.975***	(0.292)	$6.552^{**}$	(2.622)
Variance Components:						
Country-level	0.988	(0.397)	0.909	(0.365)	$0.472^{*}$	(0.195)
Regional-level	$0.143^{***}$	(0.0288)	$0.121^{***}$	(0.0253)	$0.108^{***}$	(0.0234)
Individual-level	4.773***	(0.0528)	4.584***	(0.0507)	4.584***	(0.0507)
N individual-level	16,446		16,446		16,446	
N regional-level	105		105		105	
N country-level	13		13		13	

Standard errors in parentheses p < 0.10, p < 0.05, p < 0.01

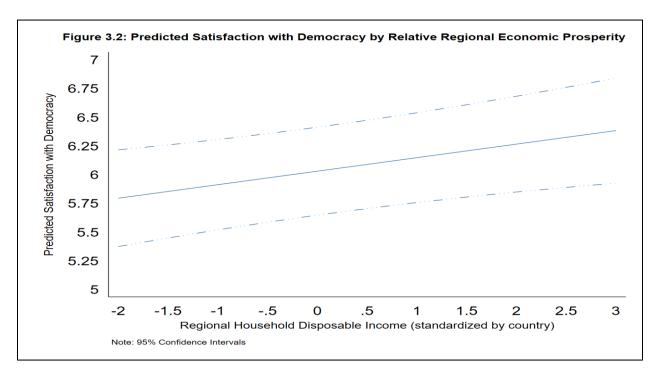
Examining the effect of individual-level factors on satisfaction with democracy in Model 1, the results of this analysis are mostly aligned with the findings of past research. Consistent with system justification theory, I find that political conservatives are more satisfied with democracy than those who place themselves on the political left (e.g., Jost et al., 2003; Jost & Hunyady, 2003). Weighing in on the debate around political interest's effect on satisfaction with democracy, this analysis finds that it is those most interested in politics that express the greatest satisfaction with democracy. Joining decades of previous research, this study finds that past voting behavior has a significant influence on individuals' subsequent satisfaction with democracy (e.g., Anderson & Guilory, 1997; Blais & Gélineau, 2007; Martini & Quaranta, 2019), as the analysis reveals that electoral "winners" are more satisfied with democracy than those who voted for a party in the opposition or those who did not vote at all. In considering one's place of residence, I find that relative to those who live in a town or small city (the modal category), those who live in more rural areas are less satisfied with democracy while those living in big cities are more satisfied with democracy. The finding that those residing in rural areas are more dissatisfied with democracy than individuals living elsewhere is consistent with Cramer's (2016) research on "rural resentment". Finally, I find that satisfaction with democracy is positively associated with household income and education.

Model 2 in Table 1 adds in contextual variables at both the regional- and country-levels.

Consistent with expectations, model 2 reveals a positive association between the relative economic prosperity of subnational regions and residents' satisfaction with democracy.

Individuals residing in the relatively prosperous regions of a given country are more satisfied

with democracy than those individuals who reside in relatively poor regions, regardless of their own household's income level<sup>19</sup>. Figure 3.2 plots the predicted satisfaction with democracy by the relative economic prosperity of subnational regions. This figure reveals that individuals residing in the most relatively economically prosperous regions in the sample express an average satisfaction with democracy score more than .5 points higher than the average satisfaction for residents residing in the sample's least relatively prosperous regions. This result is consistent with recent research that finds that electoral support for populist/anti-establishment movements is highest in economically lagging regions (Broz et al., 2021; Rodríguez-Pose, 2018), suggesting that political discontent is strongest in the regions that have been left behind economically. All three control variables at the contextual levels of analysis in model 2 are positively associated with satisfaction with democracy, though the regional unemployment rate and the country's Gini coefficient are only statistically significant a p-value < 0.1.



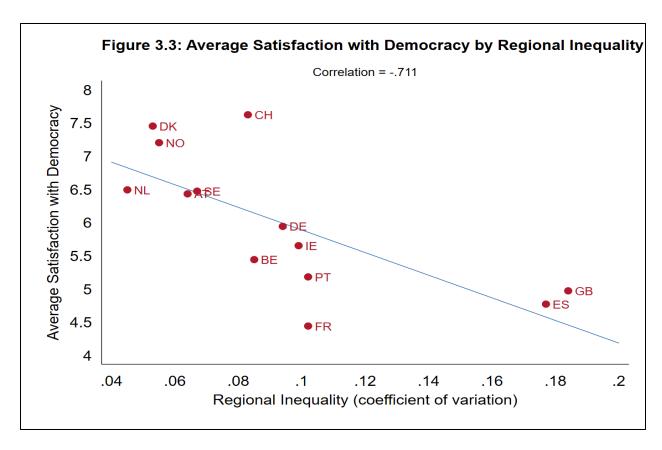
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<sup>&</sup>lt;sup>19</sup> An interaction reveals that household disposable income does not moderate this relationship. See Appendix B.3 for this interactive model.

#### 3.6 Country-level results

So far, the results are consistent with my theory. The large regional economic disparities that exist in many OECD countries have contributed to dissatisfaction with democracy for those residing in the relatively poor regions of a country. While it is primarily these individuals that suffer the consequences of inequality of opportunity, high levels of regional inequality in a country may also contribute to dissatisfaction with democracy for those individuals living in the relatively prosperous regions of the country. Past research has established that wealthy individuals, against their own economic self-interest, are willing to support economic redistribution to address economic inequalities that they believe are the result of unequal opportunities (Fong, 2001; H. Kim & Lee, 2018). This research suggests that inequalities of opportunities are perceived unfair by all individuals, regardless of whether they are personally (dis)advantaged by the inequities. Thus, I hypothesize that the average satisfaction with democracy will be lower in countries with higher levels of regional inequality.

Figure 3.3 plots the average satisfaction with democracy for the thirteen countries in my sample by their coefficients of variation, a measure of regional inequality. This figure shows that on average, the citizens of countries with relatively high levels of regional inequality are less satisfied with democracy than the citizens of countries that are more geographically balanced. The two most regionally unequal countries in the sample, the United Kingdom and Spain, have an average satisfaction with democracy below 5 on the ten-point scale. Meanwhile, the most regionally balanced countries in the sample have an average satisfaction with democracy of 6.5 or higher on the same ten-point scale. While there is notable variation in average satisfaction with democracy for those countries with middling levels of regional inequality, the correlation between these two variables is still -.711 suggesting a strong negative relationship exists.



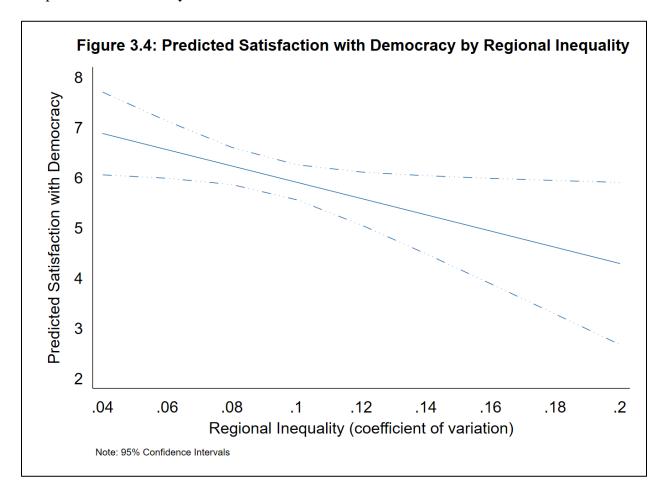
In model 1 of Table 3.2, I assess whether this negative relationship holds up with the inclusion of covariates. Even with the inclusion of control variables, I find that regional inequality is negatively associated with satisfaction with democracy at p-value < 0.05. Figure 3.4 plots the predicted satisfaction with democracy across different coefficients of variation, holding all other variables at their means. This figure clearly depicts a negative relationship between regional inequality and satisfaction with democracy, as the model predicts that the average individual in the most regionally balanced economies in the sample will be roughly 2 points higher on the ten-point satisfaction with democracy scale than the average individual residing in the most regionally unequal countries of the sample. But in contrast to the previous models in this analysis and past research that has established a negative relationship between national-level income inequality and satisfaction with democracy (e.g., Anderson & Singer, 2008; Schäfer, 2012), I do not find a statistically significant relationship between countries' Gini coefficients

Table 3.2: Regional inequality (country-level) and satisfaction with democracy

	Model 1	SE	Model 2	SE
Regional inequality	-16.18**	(7.451)	-23.63***	(7.546)
Political ideology	$0.0442^{***}$	(0.00829)	-0.102***	(0.0198)
Political ideology X Regional inequality			1.590***	(0.195)
Household income	$0.0632^{***}$	(0.00669)	$0.0635^{***}$	(0.00667)
Female	-0.0585*	(0.0341)	$-0.0608^*$	(0.0340)
Age at time of survey	0.000102	(0.00104)	-0.000221	(0.00104)
Years of full-time education completed	$0.0190^{***}$	(0.00432)	$0.0188^{***}$	(0.00431)
Interest in politics	$0.202^{***}$	(0.0210)	0.201***	(0.0209)
<b>Residence</b> (ref = town or small city):				
Farm or home in countryside	-0.183**	(0.0720)	-0.181**	(0.0719)
Country village	-0.154***	(0.0445)	-0.152***	(0.0444)
Suburbs or outskirts of big city	0.0337	(0.0546)	0.0336	(0.0544)
A big city	$0.216^{***}$	(0.0556)	$0.212^{***}$	(0.0555)
<b>Previous election (ref = voted for party in</b>				
government):				
Voted for party in opposition	-0.604***	(0.0405)	-0.639***	(0.0407)
Did not vote in last national election	-0.264***	(0.0504)	-0.289***	(0.0504)
Regional unemployment (%)	0.0112	(0.0213)	0.00674	(0.0208)
GDP per capita (USD)	0.0000284	l* (0.0000147	7) 0.0000280	*(0.0000147)
Gini coefficient	6.361	(10.38)	6.171	(10.44)
Constant	3.018	(2.763)	3.833	(2.778)
Variance components:				
Country-level	$0.338^{**}$	(0.142)	0.343**	(0.144)
Regional-level	$0.121^{***}$	(0.0253)	$0.114^{***}$	(0.0240)
Individual-level	4.584***	(0.0507)	4.567***	(0.0505)
N individual-level	16,446		16,446	
N regional-level	105		105	
N country-level	13		13	

Standard errors in parentheses \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01

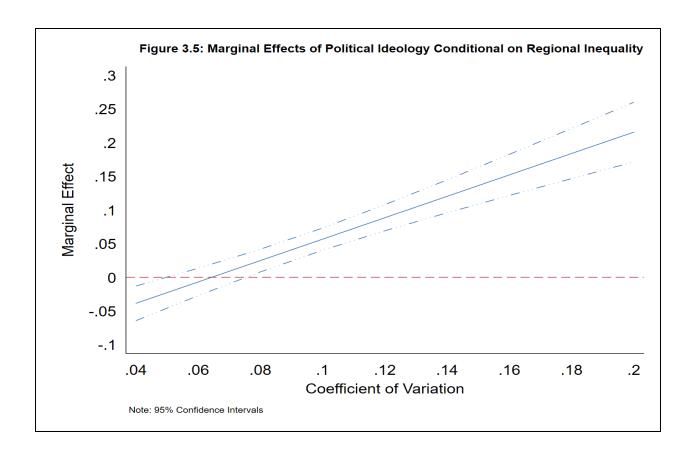
and satisfaction with democracy. This contradicting result may be due to the inclusion of a variable capturing regional inequality in the model, indicating that it is between-region inequality that is driving the negative association between Gini coefficients and satisfaction with democracy, as suggested in the theory section. On the other hand, this null-finding may be an artifact of the studies' low statistical power at the country-level of analysis due to the small sample size at the country-level.



While I find evidence in support of my country-level hypothesis, it is important to consider whether the effect of regional inequality on satisfaction with democracy is contingent on key individual-level factors – specifically, the political ideology of the individual. Political ideology plays a key role in shaping individuals' reactions to inequality. Political ideology not only shapes how negatively people view economic inequality but also whether they consider

inequality when evaluating the performance of the regime (Anderson & Singer, 2008). In examining the moderating role of ideology on the relationship between income inequality and satisfaction with democracy, Anderson & Singer (2008) find that the negative effect of inequality on satisfaction with democracy is particularly strong for left-leaning respondents, suggesting that left-leaners are more sensitive to inequality than those on the political right. Given this finding, I consider whether ideology plays the same moderating role in the relationship between regional inequality and satisfaction with democracy.

In model 2 of Table 3.2, I interact the respondents' political ideology with their country's level of regional inequality. The interaction between ideology and the level of regional inequality in model 2 is positively associated at p-value < 0.01. To illustrate this interactive relationship, Figure 3.5 plots the marginal effect of political ideology across different levels of regional inequality (measured using the coefficient of variation), holding all other covariates at their mean. This figure shows that in the most regionally balanced economies in the sample, political ideology is negatively associated with satisfaction with democracy, meaning that left-leaners are more satisfied with democracy than political conservatives in these relatively equal contexts. But as regional inequality increases, the relationship between ideology and satisfaction with democracy turns positive and gets stronger. This means that outside of more egalitarian countries, the gap in satisfaction with democracy between right-leaners and left-learners grows as regional inequality increases. Consistent with the findings of Anderson & Singer (2008), this finding suggests that left-leaners are also more sensitive to regional inequality than political conservatives.



#### 3.7 Discussion and conclusions

Across the developed world, citizens are increasingly dissatisfied with the workings of their democracy. I argue that this democratic discontent can be at least partly attributed to the regional economic divergence that many advanced industrial economies have experienced in the past few decades. While many individuals are tolerant of economic differences that they believe to be rooted in factors within one's control, I make the case that regional economic inequalities resemble an inequality of opportunity – a form of inequality that is generally viewed as unfair or illegitimate by most people. In directly contradicting democratic citizens' normative expectations of equality, I ultimately argue that regional inequalities fuel citizens' dissatisfaction with democracy.

Using cross-national survey data from round 9 of the European Social Survey and multilevel modeling, this study demonstrates that regional economic inequality is associated with dissatisfaction with democracy. Consistent with expectations, I find that the relative economic prosperity of one's region influences their subsequent satisfaction with democracy. Individuals residing in the relatively poor regions of a country express more dissatisfaction with democracy than individuals residing in the more prosperous regions of the country, regardless of their own household's income level. I also find that countries with higher levels of regional inequality have lower satisfaction with democracy on average. In tandem, these results suggest that the rising regional inequality many OECD countries have experienced over the past few decades is fueling citizens' dissatisfaction with democracy's performance, particularly for those individuals residing in the regions of a country that have been left behind economically by globalization and de-industrialization.

While the results presented in this study are consistent with my theoretical expectations and hypotheses, I should note two key caveats of this study. First, the small sample size at the country-level of analysis may have biased estimates for any country-level predictors, including cross-level interactions involving country-level predictors, or country-level variance components. Thus, some of the results of this analysis should be accepted with caution, including the finding that regional inequality (measured at the country-level) is negatively associated with satisfaction with democracy. Second, I cannot establish a causal relationship with the cross-sectional survey data utilized in this study's analysis. Although I outline a theory linking regional inequality to dissatisfaction with democracy and establish a correlation between regional inequality and dissatisfaction with democracy, I am ultimately unable to directly whether the perceived unfairness of regional inequality is why individuals are politically discontented.

While I cannot directly test the proposed causal mechanism in this analysis, Wave 9 of the ESS does include several survey items gauging respondents' perceptions of justice that could speak to the plausibility that perceived violations of fairness are driving dissatisfaction with democracy. One such item gauges whether respondents believe wealth differences in their country are fair. However, this survey item is not strongly correlated with regional inequality (r = .017) or satisfaction with democracy (r = .05). Another survey item asks respondents whether they think people get what they deserve. Again, the responses to this item are not strongly correlated with regional inequality (r = .072) or satisfaction with democracy (r = .155). The lack of a strong relationship between these fairness perceptions and my key variables does cast some doubt on the proposed causal mechanism, though I do have concerns that the specific wording of these items does not allow for a proper test of the theory outlined in this article. Further examination of the role that perceptions of fairness play in shaping individual satisfaction with democracy is necessary.

Even with this study, the potential political consequence of rising regional inequality remains understudied. Just as research examining inequality's influence on political attitudes and behaviors has proliferated in the past few decades in response to rising inequality in nearly all OECD countries, specific attention needs to be devoted to the widening of regional economic disparities in many of these same countries. Future research on this topic should address the limitations of this study. A cross-national study that not only includes more countries but greater diversity in the sample of countries is certainly warranted. While regional inequality is on the

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<sup>&</sup>lt;sup>20</sup> Respondents were asked "In your opinion, are differences in wealth in [country] unfairly small, fair, or unfairly large". This is a classic example of a double-barreled survey item, where two attitudes are assessed in the same survey item

<sup>&</sup>lt;sup>21</sup> Respondents were asked whether they agree with the following statement, "I think that, by and large, people get what they deserve".

rise in many advanced industrial economies, regional inequalities tend to be much larger in developing economies (Floerkemeier et al., 2021). Thus, any future cross-national study should explore the political consequences of regional inequality in developing contexts. Finally, future studies should directly test whether the perceived illegitimacy or unfairness of regional inequality is what is driving citizens' dissatisfaction with democracy in regionally unbalanced economies.

## 4 Relative Deprivation and the Geography of Discontent

#### 4.1 Introduction

Globalization and technological change have created a "new geography of jobs" in advanced industrial economies (Moretti, 2012). Since the late 1970s, much of the economic activity in advanced industrial economies has concentrated in the large metropolitan regions where the service sector is primarily located, while formerly prosperous rural and industrial regions have experienced depopulation and economic stagnation or decline (Autor et al., 2013; Rickard, 2020). This realignment of the economy and uneven recoveries to the global financial crisis over the last decade has led to the widening of regional economic disparities in many wealthy democracies in recent decades, reversing much of the progress made toward regional convergence in the second half of the 20<sup>th</sup> century (Gbohoui et al., 2019; Iammarino et al., 2019; Rosés & Wolf, 2021). Meanwhile, electoral support for populism has surged in many of these same countries in the last decade. In searching for the source(s) of this populist surge, numerous recent studies find that electoral support for populist and other anti-establishment candidates/causes tends to be strongest in the economically declining post-industrial and rural regions of these countries (D. Adler & Ansell, 2020; Broz et al., 2021; Carreras et al., 2019; Dijkstra et al., 2020; Essletzbichler et al., 2018). This concentration of anti-establishment electoral support in certain regions of wealthy democracies has led some scholars to claim that there is a so-called "geography of discontent", in which individuals residing in relatively poor and/or declining regions are more likely to be dissatisfied with the political status quo than others (De Ruyter et al., 2021; McCann, 2020; Rodríguez-Pose, 2018).

Despite a proliferation of research examining the geography of populist support in recent years, our understanding of the geography of discontent is limited due to how it is often studied.

A large majority of the studies claiming the existence of a geography of discontent base these claims on comparisons of the level of electoral support for populism across subnational regions or voting districts. This reliance on aggregate voting patterns leaves scholars unable to directly test *why* individuals residing in declining regions are more likely to be politically discontented. As a result, the various proposed causal mechanisms connecting the economic decline of one's community to their political (dis)satisfaction remain mostly untested.

In this article, I outline and test an explanation for the geography of discontent that emphasizes the importance of social comparisons and feelings of group relative deprivation. As an inherently social and relational phenomenon, individuals tend to make sense of economic inequality in the world by comparing their income and/or status to others around them (Canache, 1996; Condon & Wichowsky, 2020a, 2020b). While comparing oneself or one's group to others who are worse off (i.e., downward comparisons) has been found to boost one's self-esteem (e.g., Hakmiller, 1966; Wills, 1981), comparing oneself or one's group to others who are better off (i.e., upward comparisons) threatens our self-esteem, inducing anxiety and feelings of unhappiness (e.g., Luttmer, 2005; Wilkinson & Pickett, 2011). In addition to inducing anxiety and unhappiness, the theory of relative deprivation argues that upward comparisons can lead to anger and resentment if the individual believes that their relatively deprived status (or their group's status) is undeserved or unfair (Feather, 2006; Smith et al., 2012). These feelings of group relative deprivation (GRD) have been linked to various expressions of dissatisfaction with the political status quo such as, participation in political protests (e.g., Griffin et al., 2021) and electoral support for separatist or far right political parties (e.g., Abrams & Grant, 2012; Urbanska & Guimond, 2018). I argue that the widening of regional economic disparities many wealthy democracies have experienced in recent decades has induced feelings of relative

deprivation among the residents of relatively poor regions, contributing to the geography of discontent we observe in the U.S. and throughout Europe.

In order to test this theory, I analyze data from an online survey experiment with English participants. In this survey experiment, I asked the participants to compare their region's economic standing relative to the most/least prosperous regions of England. After this regional comparison, participants were asked a series of questions gauging their perceptions and emotional reactions to regional inequality in England, as well as two items that capture the participants' level of political discontent. Against expectations, I do not find evidence that social comparisons and accompanying feelings of relative deprivation are driving the geography of discontent. Participants that were asked to compare their region to the most economically prosperous region of England (i.e., an upward comparison) were not angrier or more resentful over regional economic differences than those who compared their region's economic standing to the least prosperous region of England (i.e., a downward comparison) or participants in the control group who did not make a regional comparison at all. This indicates the upward comparison did not foster feelings of relative deprivation. Perhaps as a result, participants in the upward comparison experimental group were no more dissatisfied with the political status quo than those in the other experimental groups.

Despite these null findings, this study makes a few important contributions to our understanding of the geography of discontent. In this study, I test a popular explanation for the geography of discontent but fail to find evidence in support of this theory. The null findings of this study demonstrate the need for further examination of the proposed mechanisms connecting regional decline to individual political discontent. This study also highlights the importance of directly assessing whether individuals residing in the declining regions of wealthy democracies

are more politically dissatisfied than others. Virtually all the existing studies claiming the existence of geography of discontent base these claims on electoral support for populism or other anti-establishment political causes and in doing so, <sup>22</sup> assume an individual is politically discontented from their vote choice alone. While individual support for a populist party or cause is often driven by political discontent (E. Bélanger & Aarts, 2006; Rooduijn et al., 2016; Van Hauwaert & Van Kessel, 2018), electoral support for populism need not be rooted in broader political dissatisfaction (e.g., Aytaç et al., 2021; Geurkink et al., 2020; Rooduijn, 2018).

Although the results of one study cannot disprove a theory, the null findings of this study suggest that further testing of the underlying assumptions of the geography is discontent theory is needed.

#### 4.2 What is behind the geography of discontent?

In the surprising electoral victories of two anti-establishment political movements in 2016 – UK voters' decision to leave the European Union in the referendum on European Union membership and the election of Donald Trump in the United States – there was significant geographic variation in electoral support. The strongest electoral support for Brexit and Trump's presidency was observed in the depopulating and economically declining rural and post-industrial regions of the UK and United States, respectively (Broz et al., 2021; Colantone & Stanig, 2018a; Goetz et al., 2019; Spicer, 2018). In the few years since these surprising electoral results, much has been written about the geography of discontent by both scholars and the media. Similar geographic patterns of anti-establishment electoral support have since been identified in cross-national analyses of voting patterns throughout Western Europe (e.g., Colantone & Stanig, 2018b; Dijkstra et al., 2020) and in the analyses of recent election results in specific countries

<sup>&</sup>lt;sup>22</sup> Notable exceptions include Mitsch et al. (2021), McKay et al. (2021), and Cramer (2016).

such as France (D. Adler & Ansell, 2020; Patana, 2021), Italy (Caselli et al., 2021; Di Matteo & Mariotti, 2021), and Austria (Essletzbichler et al., 2021; Gavenda & Umit, 2016). What is behind this geography of discontent?

In seeking to explain geographic variation in political behavior and attitudes, it is common to distinguish between compositional and contextual effects (van Leeuwen & Vega, 2021).<sup>23</sup> Rather than focusing on the variation in individuals' environments as an explanation for geographic patterns in political behavior (i.e., contextual effects), studies emphasizing the importance of compositional effects focus on variation in the type of people that live in different locales. Compositional explanations start with the assumption that people are *not* distributed randomly throughout a country. Instead, through a process of self-selection, people are sorted into different geographic contexts according to factors such as socioeconomic resources, sociodemographic attributes, and lifestyle preferences (Bishop, 2009; Cho et al., 2013; Gallego et al., 2016; Maxwell, 2019). In this theoretical framework, the geography of discontent is seen as largely an artifact of the heterogenous compositions of subnational regions in advanced industrial economies, as the people most likely to be dissatisfied with the political status quo will tend to concentrate in the same regions of a given country. Consistent with this argument, studies examining spatial variation in support for anti-establishment candidates/causes find that antiestablishment vote shares tend to be higher in regions with older and less-educated populations (Becker et al., 2017; Essletzbichler et al., 2021; Goodwin & Heath, 2016; Gordon, 2018).

While the heterogenous sociodemographic compositions of regions in wealthy democracies certainly contribute to the pronounced spatial pattern in anti-establishment electoral support, contextual factors play a critical and independent role in shaping the geography of

<sup>&</sup>lt;sup>23</sup> This terminology comes from Thrift (1983).

discontent. Controlling for the sociodemographic composition of regions, numerous regionallevel factors have been linked to electoral support for populism and other expressions of political discontent. Populist vote shares tend to be higher in regions with low population densities and/or in regions experiencing depopulation (Rickardsson, 2021; Scala & Johnson, 2017). Individuals residing in these sparsely populated regions (typically rural regions) are also more likely to be dissatisfied with democracy (Kenny & Luca, 2021) and distrust politicians (McKay et al., 2021; Mitsch et al., 2021). Regional economic factors also play a key role in shaping the geography of discontent. Studies have found that support for populism and other anti-establishment political causes tends to be higher in regions with low or declining housing prices (D. Adler & Ansell, 2020), high and rising unemployment rates (Essletzbichler et al., 2018; Patana, 2020), a greater proportion of the population working in the manufacturing sectoring and/or more exposure to import competition (Broz et al., 2021; Colantone & Stanig, 2018b; Essletzbichler et al., 2018), and in regions where economic growth and incomes have stagnated or declined in the mediumand long-term (Carreras et al., 2019; Dijkstra et al., 2020). Across a variety of regional-level metrics, it is clear that regional decline has contributed to political discontent.

However, while prior studies have established a connection between regional decline and political discontent in a variety of contexts, the causal mechanism(s) linking regional decline to individual political discontent remain elusive. There are several proposed causal mechanisms connecting the economic decline of one's region to their subsequent political discontent. Related to the cultural backlash theory of populism (Norris & Inglehart, 2019), some scholars argue that the economic decline of one's community feeds into the perception that one's social standing in society is under threat (e.g., Baccini & Weymouth, 2021; Carreras et al., 2019; McKay et al., 2021), particularly when they reside in diverse contexts (e.g., Ballard-Rosa et al., 2022; Gest,

2016). It is this perceived threat to one's social standing that drives residents of declining regions to vote for populists, particularly populists on the political right. Others argue that this dissatisfaction with the political status quo stems from resentment over the economic standing of one's region. Residents of economically declining regions may resent the economic decline of their once prosperous region (e.g., Gest et al., 2018). Arguably the most popular explanation for the geography of discontent is that residents of economically lagging regions resent the economic standing of their region relative to other regions in the country (e.g., D. Adler & Ansell, 2020; Ansell et al., 2021; Cramer, 2016; Green et al., 2022; Patana, 2021; Rodríguez-Pose, 2018).<sup>24</sup>

Although these proposed mechanisms are all plausible, the empirical approaches utilized by many existing studies examining the geography of discontent do not allow for causal mechanisms to be directly tested.<sup>25</sup> In analyzing variation in support for populism and other antiestablishment causes across regions, a large majority of studies are simply unable to make inferences about the source of political discontent at the individual-level. A few studies assess the effect of regional factors on individual discontent using multilevel approaches, avoiding the pitfalls of the ecological fallacy, but they do not directly test causal mechanisms linking regional factors to political discontent (Koeppen et al., 2021; Lenzi & Perucca, 2021; Rickardsson, 2021).<sup>26</sup> In the following sections, I argue that feelings of group relative deprivation are behind the geography of discontent and describe how I will test this theory using an original survey experiment.

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<sup>&</sup>lt;sup>24</sup> Cramer's theory of rural resentment packs in both feelings of relative deprivation and a sense of declining social status

<sup>&</sup>lt;sup>25</sup> There a few studies that explore their proposed causal mechanism using observational approaches (Carreras et al., 2019; Green et al., 2022; McKay et al., 2021)

## 4.3 Social comparisons and relative deprivation

Comparisons are fundamental to information processing for humans. Humans begin making comparisons at a very early age (Gentner & Medina, 1998). As we grow older, we place greater reliance on comparative information to make judgements in an efficient manner and to helps us navigate an increasingly complicated social world (Mussweiler & Epstude, 2009). We naturally rely on social comparisons not only to categorize society and inform our social identities but also to help us understand our social standing in society (Brewer, 1991). It is through social comparisons that we can evaluate our skills, attributes, and the validity of our beliefs and opinions relative to others (Festinger, 1954). In this sense, social comparisons play a critical role in shaping perceptions of our relative social status.

We also rely on social comparisons to satisfy our psychological need to maintain a positive self-image and/or group identity (Tajfel, 1982; Tajfel & Turner, 1986). In selecting whom we compare to, we can use social comparisons to enhance our sense of self (Wood, 1989). Comparing to others who are worse off (i.e., a downward comparison), can boost our self-esteem and help us maintain a positive image of our self or our social group (Hakmiller, 1966; Wills, 1981). But when we make comparisons to others who are better off (i.e., an upward comparison), our social self comes under threat, and this threat can induce anxiety and feelings of unhappiness (Luttmer, 2005; Wilkinson & Pickett, 2011). For these reasons individuals will tend to avoid making upward comparisons when possible and seek out downward comparisons when their status is threatened (Fiske, 2011; Wheeler & Miyake, 1992; Wood, 1989).

However, as economic inequalities rises in many advanced industrial economies, both interpersonally and spatially, upward comparisons in terms of income and socioeconomic status inevitably become unavoidable (Cheung & Lucas, 2016; Walasek & Brown, 2015; Wilkinson &

Pickett, 2011).<sup>27</sup> The theory of relative deprivation provides some important insights as to how these upward comparisons and their accompanying psychological reactions could influence political attitudes and behaviors. According to relative deprivation theory, upward comparisons also fuel feelings of anger and resentment if an individual believes that her or her social group's relative disadvantage is unjust or undeserved (Feather, 2006; Smith et al., 2012; Stouffer et al., 1949). These feelings of relative deprivation have varying behavioral and attitudinal consequences depending on whether an individual feels they are personally deprived or whether the individual feels that a social group in which they belong is unfairly deprived (Runciman, 1966). While individual relative deprivation (IRD) tends to lead to individual-serving attitudes and behaviors, feelings of group relative deprivation (GRD) tend to influence intergroup attitudes and/or attitudes and behaviors directed toward the system believed to be the source of their group's relatively deprived state (Smith et al., 2012). Accordingly, group relative deprivation has been linked to increased in-group identification and negative attitudes toward out-groups (Pettigrew et al., 2008), electoral support for anti-establishment political parties (Abrams & Grant, 2012; Urbanska & Guimond, 2018), participation in political protests (Griffin et al., 2021), and even political violence (Gurr, 1970; Østby, 2008; Stewart, 2000).

I argue that the large and widening regional economic disparities that exist in many wealthy democracies are fueling feelings of group relative deprivation among residents of economically-laggard regions, ultimately contributing to their political discontent. After making considerable progress toward regional economic convergence in the second half of the 20<sup>th</sup>

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<sup>&</sup>lt;sup>27</sup> It has been suggested that rising inequality leads to fewer upward comparisons if rising inequality also results in economic segregation. In economically segregated contexts, individuals' direct exposure to those who are better off than hem may be limited (Condon & Wichowsky, 2020a, 2020b). Despite this, news reporting of rising inequality and depictions of the well-off in entertainment media influence individual perceptions of the economic distribution and still provide individuals viable targets for upward comparisons (e.g., Coppini et al., 2018; Diermeier et al., 2017; Kim, forthcoming).

century, regional economic disparities have widened significantly in many advanced industrial economies since the 1980s (Rosés & Wolf, 2021). Largely the result of structural economic factors, such as globalization and technological change, once prosperous rural and manufacturing regions have experienced economic decline over the past several decades, as the economic activity of advanced industrial economies increasingly concentrates in just a few large metropolitan regions where the skilled service sector is primarily located (Gbohoui et al., 2019; Iammarino et al., 2019). For many regions, this realignment of their country's economy has led to brain drain, falling wages, fewer employment opportunities, the deterioration of public services (Patana, 2021), and the closing of local socio-cultural hubs (Bolet, 2021). As a result, residents of these economically declining regions have seen their communities unfairly "left behind" by the very same economic transformations that have brought considerable economic growth and greater economic opportunities to a few regions of their country, fueling anger and resentment over their region's relatively deprived status. I argue that it is these feelings of relative deprivation that has led residents of relatively poor regions to reject the political status quo that they deem responsible for their communities' relative decline.

To test this argument, I utilize data from an original survey experiment in which respondents were experimentally induced to compare the economic standing of their region to that of the most prosperous region (upward comparison) or least prosperous region (downward comparison) of England. The argument outlined in this section yield the following hypotheses:

Hypothesis 1 (H1): Participants that compare their region to the most economically prosperous region of England (upward comparisons) will be angrier and more resentful over regional economic differences in England than participants who make no regional comparisons (control) or those who compare their region to the least economically prosperous region of England (downward comparison).

Hypothesis 2 (H2): Participants that compare their region to the most economically prosperous region of England (upward comparisons) will be more politically discontented than participants who make no regional comparisons (control) or those who compare their region to the least economically prosperous region of England (downward comparison).

## 4.4 Empirical strategy

In order to test my hypothesis that relative deprivation is driving the geography of discontent, I conducted an original survey experiment with English participants in July of 2021. The participants began this survey experiment by answering questions about their region of residence, including several items designed to capture their level of attachment to the region, and questions about their basic political beliefs and household income level. The participants were then randomly assigned to one of three experimental groups, two treatment groups and one control group. <sup>28</sup> Participants assigned to one of the two treatment groups were asked to compare their region of residence's economic standing relative to the least economically prosperous region (i.e., downward comparison) or the most economically prosperous region of England (i.e., upward comparison) depending on which treatment group they were assigned. Those participants randomly assigned to the control group were not asked to compare their region of residence to another English region and proceeded immediately to the post-treatment survey items. After the administration of the treatment, all participants answered survey items probing their affective reactions to regional inequality in England as well as items designed to capture their level of political discontent.<sup>29</sup>

<sup>&</sup>lt;sup>28</sup> Out of the 1,055 participants in the sample: 350 participants were assigned to the downward comparison treatment group ( $\sim$ 33.2%), 353 participants were assigned to the upward comparison treatment group ( $\sim$ 33.5%), and X participants were assigned to the control group ( $\sim$ 33.4%).

<sup>&</sup>lt;sup>29</sup> Participants also completed two attention checks, one pre-treatment and the other post-treatment. Only 3 participants (.28% of the sample) failed both attention checks.

England is an ideal setting to conduct this survey experiment, as it is one of the most regionally unequal countries in the developed world across a variety of metrics (McCann, 2016). Further, while the South of England has long outperformed the rest of England economically, the so-called "north-south divide" has widened since the 1990s, particularly in the last decade due to London's relatively quick recovery from the global financial crisis (McCann, 2016, 2020). This widening of regional economic disparities in recent years has led to a "bifurcation of politics" in England, as the political attitudes of those living in England's declining regions have diverged significantly from those living in England's economically booming regions (Jennings & Stoker, 2016, 2018). The bifurcation of politics in England is best exhibited by the pronounced geographical variation in electoral support for leaving the European Union in the 2016 Brexit referendum. Voters residing in England's economically declining communities, largely in the Midlands and North of England, were more likely to vote "leave" than voters residing in more prosperous communities in London and the rest of the South East (Becker et al., 2017; Colantone & Stanig, 2018a; Hobolt, 2016). As arguably the most cited example of a geography of discontent in recent years, I can think of no better context than England to assess whether social comparisons and feeling of relative deprivation are behind the geography of discontent.

#### 4.4.1 The sample

The survey experiment was administered online on Prolific.co, a crowdsourcing platform similar to Amazon's Mechanical Turk, on July 20<sup>th</sup>, 2021. For this analysis, I collected responses from 1,062 individuals residing in England.<sup>30</sup> Each participant was paid £2.00 (roughly \$2.75 at

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<sup>&</sup>lt;sup>30</sup> The survey experiment was only visible to individuals that reside in one England's nine regions. While there are stark regional disparities throughout the UK, I elected to not include residents of Scotland, Wales, or Northern Ireland in this study. With the distinct ethnic identities and the nationalist aspirations in these three constituent countries of the UK, I was worried that these factors may have a unique influence on the relationship between regional inequalities and citizens' evaluations of the UK's democracy.

the time of analysis) for their time. On average, participants completed the survey experiment from start to finish in a little over seven minutes. Seven of the individuals that consented to the study failed to complete more than 90% of the survey and thus, there responses were excluded from the analysis – leaving a final working sample of 1,055 individuals. This sample size results in approximately 352 participants per experimental group, allowing me to detect a causal effect as small as .096 (Cohen's F) between experimental groups, assuming a statistical power of .80 (J. Cohen, 1988).

In using a crowdsourcing platform to recruit participants, participants self-selected into the study. Thus, my sample is not representative of England. Although, using a convenience sample limits my ability to generalize the findings of this analysis to the broader population of England, convenience samples collected through crowdsourcing platforms are commonly used in the social sciences because they are relatively cheap, are often more representative than convenience samples recruited in alternative ways, and have been found to produce causal effects of similar size to effects produced by experiments with nationally-representative samples (Berinsky et al., 2012). However, it is still important to consider whether the convenience sample deviates from the population in ways that may influence the results of the analysis.<sup>31</sup>

The composition of my sample deviates from the population in a few ways that may be influential to the results. While the regional distribution of my sample doesn't stray too far away from the true regional population distribution of England, South East England (19.43% of the sample) is overrepresented (16.3% of England's population) and East of England (7.96% of the sample) is underrepresented (11.1% of England's population).<sup>32</sup> As the second wealthiest region

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<sup>&</sup>lt;sup>31</sup> For descriptive statistics on the demographic composition of the sample, see Appendix C.1.

<sup>&</sup>lt;sup>32</sup> I compared my regional distribution to 2020 regional population estimates from the Office for National Statistics (Office for National Statistics, 2021).

of England behind London, the overrepresentation of a relatively wealthy region may mean my upward comparison treatment will be less effective in inducing feelings of relative deprivation. Turning to demographic variables, participants in my study are more educated and more likely to be female (67.2% of the sample) than overall the English population. Education is a strong predictor of political trust and satisfaction with democracy (e.g., Anderson & Tverdova, 2003; Criado & Herreros, 2007) as well as the rejection of populism (e.g., Arzheimer, 2009; Spruyt et al., 2016). Thus, individuals in this sample are less likely to be politically discontented than the average English resident.

Finally, my sample is much more left-leaning than the English population. On the elevenpoint political ideology scale, with a 0 representing "left" and 10 representing "right", the average ideology value for the sample was 3.8 – indicating a sample that leans to the political left. Nearly 50% of the sample identifies with the Labour Party (47.2%) and 11.5% of the sample identifies with the Green Party, while only 20.7% of the sample identifying with the Conservative Party (the current party in government). This partisan make-up stands in stark contrast to the 2019 General Election results where 47% of English voters casted their vote for the Conservative Party and only 34% and 3% of English voters casted their vote for the Labour Party and Green Party, respectively. The fact the sample leans to the political left and more strongly identifies with the Labour Party may have important implications for my results. Previous research has established that individuals on the political-left are particularly sensitive to economic inequality (Anderson & Singer, 2008). Additionally, a long line of research has found that electoral losers are more likely to be dissatisfied with democracy than electoral winners – particularly in unequal contexts (e.g., Anderson et al., 2005; Anderson & Guilory, 1997; Han & Chang, 2016). Thus, having a sample that leans to the left and more strongly identifies with the

Labour Party and other parties in the opposition makes it more likely that I will find that individuals are dissatisfied with the political status quo.

#### 4.4.2 The experimental treatments and measurement of the dependent variables

The treatments employed in this survey experiment were inspired by the treatments used by Condon & Wichowsky (2020a, 2020b) and are designed to induce respondents to make social comparisons.<sup>33</sup> Participants assigned to both treatment groups were shown a map of England with its nine regions labelled and a 9-rung ladder.<sup>34</sup> Participants were asked to think of this ladder as representing where England's nine regions stand economically. Below these images, participants in the treatment groups were presented a vignette in which they were asked to compare their region to the least *or* most economically prosperous region. At the end of the vignette, participants were then asked where their region would fall on the 9-rung ladder relative to the region at the very bottom/very top of the ladder.<sup>35</sup> The vignette reads as follow:

Now, please compare your region to the region at (the very bottom/very top) of the ladder. This is the region in England that is (worst/best) off – the region whose residents have the (least/most) money, the (least/most) education, the (worst/best) health, and the (worst/best) jobs. In particular, I'd like you to think about your region's residents are different from that region's residents in terms of income, education level, health, and the type of jobs they hold. Where does your region fall on this ladder relative to the region at the very bottom/very top?

Please select a number on the grid below representing rungs of the ladder, with '9' representing the top rung and '1' representing the bottom rung. Where does your region fall?

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<sup>&</sup>lt;sup>33</sup> Condon & Wichowsky's treatments are based on the MacArthur Scale of Subjective Social Status, an experimental instrument designed to capture subjective social status. This instrument features a ladder as a visual and asks respondents to place themselves on the rung of the ladder that corresponds with their relative "rank" in society. The MacArthur Scale of Subjective Status was first introduced by Adler et al. (2000).

<sup>&</sup>lt;sup>34</sup> The nine regions of England are: North East, North West, Yorkshire and the Humber, East Midlands, West Midlands, South West, London, South East, and East of England.

<sup>&</sup>lt;sup>35</sup> To see the treatments as they were experienced by the respondents, see Appendix C.2.

This experimental design for assessing the impact of regional comparisons on participants political dissatisfaction was chosen for several reasons. First, in inducing participants to compare the economic standing of their region to another region in the experimental treatments, the treatments ensure that participants have made a social comparison prior to expressing their political attitudes. Many of the extant studies in political science that emphasize the importance of social comparisons on political attitudes rely on observational data and thus, can only assume that respondents are making social comparisons before expressing their political attitudes (e.g., Green et al., 2022; McKay, 2019). Second, in withholding factual information about regional economic differences from the participants in the treatments' vignettes, this experimental design more closely resembles the way in which people navigate complex relational phenomenon like economic inequality – through social comparisons. An added benefit of the treatments containing no factual information is that the regions that respondents are asked to compare their region to remain nameless. This helps avoid a situation in which respondents consider additional features of the region not included in the treatment that may influence their perceptions of England's regional disparities, thereby boosting the external validity of the survey experiment (Dafoe et al., 2018).<sup>36</sup>

Rather than consider participants' support for a populist party as many previous studies do, I directly measure participants' level of political discontent with two survey items commonly used to capture (dis)satisfaction with politics in a democratic context. Although I expected response to these survey items to load onto a single factor, the Cronbach alpha fell well short of the common threshold of .70 and thus, I assess the impact of the treatment on the two survey items separately rather than creating an index of the two items. The first survey item captures the

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<sup>&</sup>lt;sup>36</sup> I am particularly concerned that participants will also consider the non-economic attributes of a specific region, such as its cultural or political differences, when comparing to their region.

participants' satisfaction with democracy's performance in the United Kingdom. Rather than capturing an individual's adherence to democratic values or preference for democracy as a regime type, the satisfaction with democracy survey item is commonly used in political science research to capture individuals' evaluations of the democracy's functioning in practice, including the quality of the regime's political and economic output and its ability to meet citizens normative expectation (Canache et al., 2001; Claassen, 2020; Easton, 1965; Linde & Ekman, 2003). Participants were asked, "Are you satisfied or dissatisfied with the way democracy works in the United Kingdom?". Responses to this item ranged from "Very dissatisfied" (1) to "Very satisfied" (5), with a neutral response falling in the middle of the scale.

The second survey item used to assess individual political discontent captures the degree to which respondents feel externally efficacious. External efficacy refers to one's belief that the government and its institutions are responsive to the demands of the public (Craig et al., 1990). The belief that the government is responsive and accountable to the citizens is not only a crucial component of a democratic political culture (Almond & Verba, 1965), but a lack of external efficacy has been linked to lower levels of political participation (e.g., Karp & Banducci, 2008) and electoral support for anti-establishment political parties and candidates (e..g, Magni, 2017; Rooduijn et al., 2016). Given the centrality of government responsiveness to democratic governance and the correlates of low levels of external efficacy, I join previous analyses in utilizing external efficacy as an additional indicator of political dissatisfaction in a democratic political system (Craig et al., 1990; Goldberg et al., 2020; Rooduijn et al., 2016). In this study, feelings of external efficacy are measured using a survey item that ask respondents, "How much can people like you affect what the government does?". Responses to this item ranged from "Not at all" (1) to "A great deal" (5).

#### 4.5 Results

Before assessing whether participants who made upward comparisons are more politically discontented than other participants, I first consider whether those in the upward comparison treatment group are angrier and more resentful over regional economic differences in England than those in the other experimental groups. A critical component of relative deprivation theory is that one must believe their relatively disadvantaged status is undeserved (Smith et al., 2012). Simply perceiving one's group is relatively disadvantaged does not inherently imply that this disparity is viewed as unfair and thus, upward comparisons do not automatically induce feelings of relative deprivation. In order to establish that those in the upward comparison treatment group feel relatively deprived, I analyze the level of anger and resentment over regional economic differences in England across experimental groups. Anger and resentment are commonly considered affective correlates of relative deprivation, as they are strongly associated with perceived violations of justice and deservingness (Feather, 2006; Smith et al., 2012).

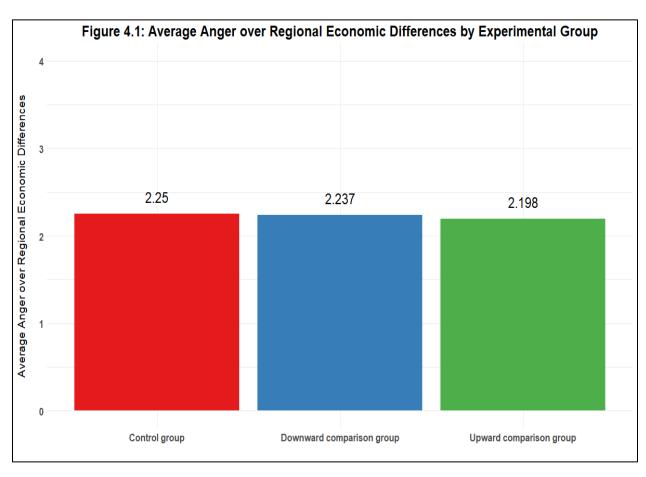
I assessed respondents' affective reactions to regional economic disparities in England using a survey item that asks, "When you think about the economic differences across the regions in England, how strongly do you feel the following emotions?". The Responses range from "not at all angry/resentful" (1) to "very angry/resentful" (4). Figures 4.1 and 4.2 plot the average level of anger and resentment by experimental group, respectively. In both figures, the level of anger and resentment over regional economic differences in England are roughly equal across all three experimental groups. Surprisingly and against expectations, those in the upward comparison group were slightly less angry and resentful over regional economic differences in

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<sup>&</sup>lt;sup>37</sup> In addition to anger and resentment, respondents were asked how strongly they feel: sympathy, contempt, happiness, sadness, pride, and shame.

England than those assigned to the two other experimental groups. However, the results of two Kruskal-Wallis H tests reveals that the differences in the level of anger/resentment across the experimental groups are not statistically significant for either anger or resentment (p-value = .78/36).<sup>38</sup> This null finding suggests that the induced comparison to the most prosperous region of England did not produce feelings of relative deprivation.

Despite this null result, I now consider whether those in the upward comparison group are more politically discontented than those in the other experimental groups using my two primary dependent variables – satisfaction with democracy's performance and external efficacy.



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<sup>&</sup>lt;sup>38</sup> The Kruskal-Wallis H test is the non-parametric equivalent of one-way ANOVA. As a non-parametric test, Kruskal-Wallis tests do not assume a normal distribution and thus, is the appropriate hypothesis test for the various ordinal dependent variables used throughout this analysis.

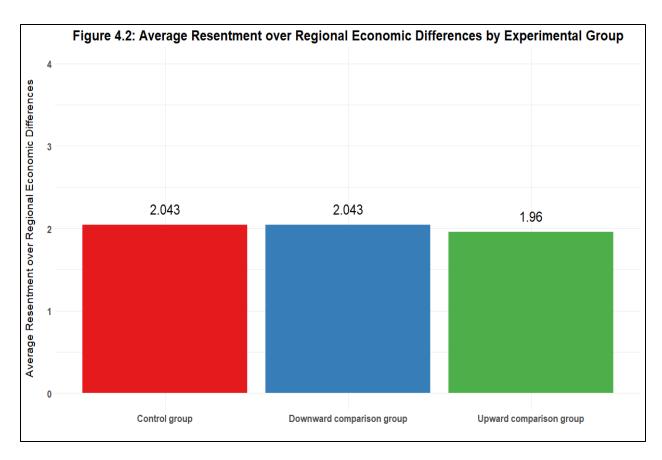
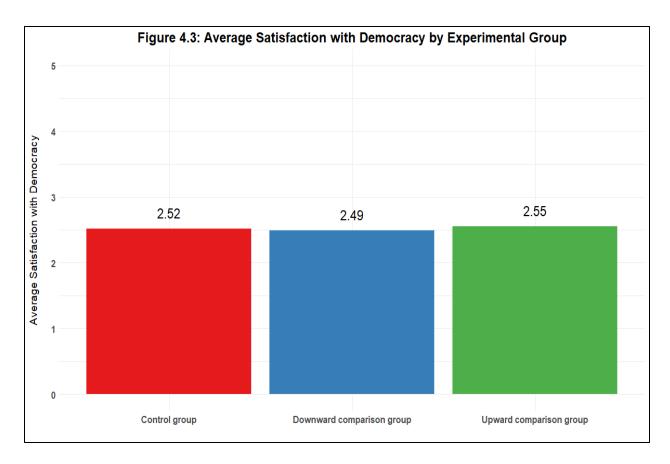


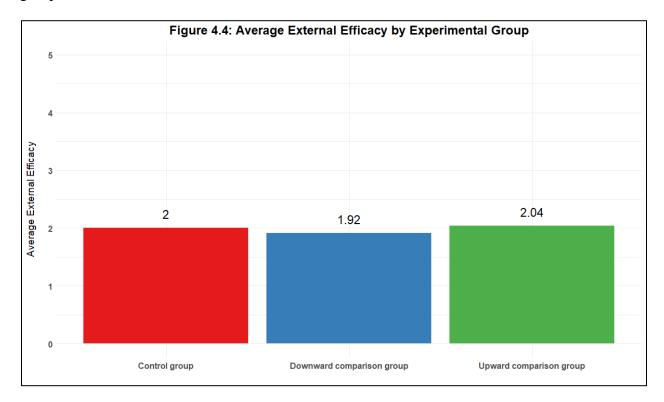
Figure 4.3 depicts the average satisfaction with democracy for each experimental group on the five-point scale (higher values imply greater satisfaction). Against expectations, those in the upward comparison group had the highest average satisfaction with democracy across the three experimental groups, with an average score of 2.55 on the five-point satisfaction scale.

Meanwhile, those in the downward comparison and control groups had an average satisfaction of 2.49 and 2.52 on the five-point satisfaction scale, respectively. However, a Kruskal-Wallis test reveals that the differences in satisfaction with democracy across the three experimental groups are not statistically significant. The Kruskal-Wallis test produced a Chi-square value of .63 with 2 degrees of freedom (p-value = .73).



Next, I consider whether those in the upward comparison group feel less externally efficacious than those in the other experimental groups. Figure 4.4 plots the average feeling of external efficacy by experimental group on the five-point scale (higher values imply greater external efficacy). Surprisingly, it is those in the downward comparison group that are the least externally efficacious with an average score of 1.92 on the five-point scale. Meanwhile, the average external efficacy for those in the upward comparison and control groups is 2.04 and 2, respectively. The results of a Kruskal-Wallis test reveal that the difference in external efficacy across the experimental groups is statistically significant at p-value < 0.1 (p-value = 0.07). To determine *where* the statistically significant difference lies, I conduct a series of pairwise Wilcoxon rank sum tests – the non-parametric equivalent of a t-test. The results of the Wilcoxon rank sum test reveal that the only significant difference across experimental groups is between the downward comparison and upward comparison groups – those in the downward comparison

group are less externally efficacious than those in the upward comparison group (p-value = .026). Thus, across both measurements of political discontent, I fail to find evidence that those who made upward comparisons were more politically dissatisfied than those in the other experimental groups.



#### 4.6 Discussion of the results

In summary, the results do not indicate that feelings of relative deprivation are driving the geography of discontent. Contrary to expectations, those in the upward comparison treatment group were no angrier or more resentful over regional economic differences in England nor were they more politically discontented than those in the two other experimental groups. The typical explanation for a null finding is a lack of statistical power. However, with roughly 350 participants per experimental group, the results of a power analysis indicate that I could detect quite small treatment effects (Cohen's F < .1). Thus, increasing the sample size is not likely to

have a significant impact on the results of the study. Other than sample size, there are a few other possible explanations for the null findings.

The null results may be explained by an ineffective experimental treatment. One issue with the experimental treatment as designed is that individuals from the most prosperous region (London) and the least prosperous region (North East) are asked to compare to their own region in the upward comparison and downward comparison treatments, respectively. It is extremely unlikely that the upward comparison treatment would induce feelings of relative deprivation for Londoners (or those residing in other relatively prosperous regions), perhaps dampening the average effect of the upward comparison treatment. To explore this possibility, I subset my data into three: a subset with only residents of the three poorest regions (North East England, Yorkshire and The Humber, and West Midlands); a subset with only residents of the three wealthiest regions (London, South East England, and East of England); and a subset with only residents of three middle regions (North West, East Midlands, and South West) in terms of average household disposable income. Across all three subsets, I do not find evidence that those in the upward comparison group were more angry/resentful over regional economic differences in England nor were they more politically discontented than those in the other experimental groups.<sup>39</sup> Thus, it is possible that the treatment was simply not strong enough to move already solidified attitudes about regional economic inequality in England. The so-called "north-south divide" has long been an important theme in English politics and society. But attempts by successive governments to tackle regional economic disparities in England over the past few decades and the pronounced spatial variation in support for Brexit has only increased the political salience of regional inequality in England. If one already has strong attitudes associated

<sup>&</sup>lt;sup>39</sup> See Appendix C.3 for the results of these analyses.

with the fairness of regional economic inequalities, it would be unlikely for a short thought exercise in which individuals are asked to compare their region to another region to provoke a strong affective reaction.

Another plausible explanation for the null findings is that respondents were asked to compare the "wrong" regions and exploring feelings of group relative deprivation at a lower-level of aggregation would have resulted in effects consistent with my hypotheses. As a highly centralized and unitary state, the UK lacks an obvious way in which one should define "region". The UK has historically divided the country up into 12 "regions" for some administrative and statistical purposes – nine English regions plus the three constituent countries of the UK (Wales, Scotland, and Northern Ireland). Given this historic conceptualization of "region", I elected to ask participants to consider economic differences across the nine English regions. But there are "regions" at a lower level of aggregation that may be more salient or relevant to individuals, such as counties or local authorities. Relatedly, it is likely that the context that is most relevant to the question at hand varies across individuals. Ultimately, the way social scientists define and measure "context" has important implications for the results of our analyses and future examinations of the geography of discontent must ensure they are studying the context that is most relevant to the individuals (Wong et al., 2012, 2020).

Finally, it is possible that an alternative explanation is behind the geography of discontent. The lack of results in support of the theory of relative deprivation may suggest that the heterogenous sociodemographic compositions of regions is the primary factor driving the geography of discontent. But assuming that contextual factors are important, it could be that one of the other proposed causal mechanisms linking regional economic decline to individual political discontent is at work.

#### 4.7 Conclusion

Throughout Western Europe and in the United States, scholars have identified the existence of a geography of discontent. Regardless of their individual sociodemographic attributes, residents of economically declining regions are more likely to support antiestablishment political causes and express broader dissatisfaction with politics in their country than individuals residing in more prosperous regions of the country. A common explanation for the geography of discontent is that residents of these regions resent the economic deterioration and lack of economic opportunity in their communities relative to other regions of their country. In this article, I test the explanation that group relative deprivation is driving the geography of discontent using a survey experiment administered in July of 2021 to residents of England. Against expectations, I find no evidence that feelings of group relative deprivation are driving the geography of discontent. Individuals comparing their region to the most prosperous region in England were no more likely to exhibit feelings of relative deprivation nor express greater dissatisfaction with the political status quo than participants in the other experimental groups.

Despite its null findings, the study highlights the need for further exploration of the geography of discontent. It is now well-documented that the geography of discontent exists in a variety of contexts, but the next step is to establish *why* residents of economically declining regions are more dissatisfied with the political status quo. Though there are a variety of proposed explanations for the geography of discontent, few existing studies can directly test these explanations due to their reliance on aggregated voting data and observational analyses. The lack of evidence supporting a popular explanation for the geography of discontent in this study underscores the need for direct testing of existing explanations. As such, future research of the

geography of discontent should explore the causal mechanisms that connect the economic decline of one's region to their subsequent political discontent using causal inference methods.

## 5 Conclusion

# 5.1 Main findings of the dissertation

After decades of progress toward regional economic convergence in the 20<sup>th</sup> century (Logan et al., 2021; Rosés & Wolf, 2021), regional economic disparities have widened considerably in many advanced economies over the past forty years (Iammarino et al., 2019; IMF, 2019; OECD, 2019). Uneven recoveries to the global financial crisis over the past decade have only exacerbated this trend, as economically lagging regions fall further and further behind the most prosperous regions (Gbohoui et al., 2019). In this three-article dissertation, I explored some of the political consequences of rising regional inequality in many wealthy democracies. In Chapter 2, I examined the public issue salience of regional inequality in the United Kingdom over the past few decades. I found evidence that suggests that the widening of regional economic disparities in recent years has increased the political salience of regional inequality among the British public during this time. As regional inequality increases and becomes a more politically salient issue among the public, the issue is likely to a play a more central role in the electoral politics of wealthy democracies.

I also considered whether regional inequality is contributing to individual political discontent. In Chapter 3, I examined the relationship between regional economic disparities and individual satisfaction with democracy in thirteen Western European countries. Consistent with the geography of discontent hypothesis, I found that individuals residing in relatively poor regions are less satisfied with democracy than individuals residing in more prosperous regions of the same country, regardless of their own household's income level. In Chapter 4, I argued that feelings of group relative deprivation are behind this geography of discontent and tested this

theory. However, against expectations, I do not find evidence that feelings of group relative deprivation are driving dissatisfaction with the political status quo.

## 5.2 Contribution and policy implications

The primary contribution of this research project is its focus on regional economic inequality, a form of inequality that has largely been neglected by political scientists. Prior to the recent electoral success of anti-establishment political causes in economically lagging regions, scholars were primarily concerned about the political consequences of rising interpersonal economic inequality. However, in finding that regional inequality is not only becoming a more politically salient issue among the public but that it also influences individual satisfaction with democracy, even when controlling for household income and income inequality at the country-level, this dissertation shows that regional inequality poses a unique challenge to wealthy democracies. This finding is consistent with recent research that shows that support for populism tends not to be strongest among the poorest of the poor, but the relatively affluent living in economically declining regions (Ansell et al., 2021; Norris & Inglehart, 2019; Rodríguez-Pose, 2018). More generally, this dissertation demonstrates the need for more research exploring the political consequences of inequalities between social groups (i.e., horizontal inequalities), as these horizontal inequalities are more likely to be perceived as unfair or illegitimate (Rawls, 1999; Roemer, 1998; Stewart, 2005).

This research project also has important policy implications, contributing to the debate between people-based and place-based economic development approaches. This debate largely centers around whether policymakers should focus on lifting people (people-based policies) out of poverty or focusing on bringing economic prosperity to economically laggard regions (place-based policies). Advocates for the people-based approach argue that diverting resources to

lagging regions is economically inefficient, as it increases economic activity in underperforming regions while decreasing economic activity in the most dynamic economies. Instead, many economists argue that policymakers should focus on growing large, already economically prosperous cities (Glaeser, 2011; Glaeser & Gottlieb, 2009; World Bank, 2009). The primary rationale behind this focus on growing big cities is rooted in the expected efficiency gains (i.e., agglomeration economies) that come from concentrating economic activity in particular locales (Puga, 2010). Around the world, many countries have adopted policy recommendations in recent decades (Rodríguez-Pose, 2018).

This concentration of economic activity in large metropolitan areas will inherently lead to unbalanced economic growth within countries, but advocates of this approach argue that the benefits of economic agglomeration outweigh the rise in regional inequality (World Bank, 2009). While the economic merits of this developmental approach are hotly debated (e.g., Barca et al., 2012; Dijkstra et al., 2013; Frick & Rodríguez-Pose, 2018), economists advocating for a focus on growing large cities do not consider the political consequences of rising regional inequality. In this dissertation, I show that regional inequality is not only becoming a more politically salient issue among the public, but it is a source of individual political discontent. With this in mind, policies designed to bring economic opportunity to the places that have been economically left behind in recent decades (i.e., place-based policies) may help address the rising dissatisfaction with the political status quo that many wealthy democracies are experiencing.

#### 5.3 Future Research

This dissertation brings to light some of the political consequences of rising regional inequality in many advanced economies. However, some important research questions from this

project remain unanswered and many potential consequences of rising regional inequality remain unexplored. In this section, I suggest three avenues for future research.

Over the past few years, numerous studies have identified a geography of discontent, in which electoral support for populism and other anti-establishment political causes is strongest in the economically declining rural and post-industrial regions of advanced economies. Consistent with this research, I found that individuals residing in relatively poor regions are less satisfied with democracy than individuals residing in more prosperous regions. Despite consistent evidence that individuals living in these economically declining regions are more dissatisfied with the political status quo, the causal mechanism linking the economic decline of one's region to their subsequent political discontent remains elusive. In Chapter 4, I examined whether feelings of relative deprivation are driving this dissatisfaction with the political status quo, but ultimately fail to find evidence in support of this popular theory. Thus, future research on the geography of discontent should seek to identify the causal mechanism behind this relationship.

In Chapter 2, I described the growing demand regional devolution in the UK over the past decade. This growing desire for regional self-rule coincides with a period of rising inequality, suggesting the two trends might be connected. Future research should examine whether regional inequality contributes to public support for greater regional devolution or in the more extreme case, independence. While past research has examined the impact of regional autonomy on regional inequalities (e.g., Gil Canaleta et al., 2004; Kyriacou et al., 2015; Rodríguez-Pose & Gill, 2004), to my knowledge, no existing studies has examined whether rising regionality is contributing to greater demands for regional autonomy. The UK is a perfect country to study this potential relationship, as it is not only one of the most regionally unbalanced countries in the developed world, but it is also one of the most politically centralized countries.

Finally, as regional inequality continues to rise, governments in wealthy democracies are likely to make efforts to close the regional gaps, as we have seen in the UK. Thus, future research should explore public support for various policies aimed at bringing economic prosperity to lagging regions (i.e., place-based policies). This research agenda could build on the already robust literature examining support for redistribution and/or the welfare state. I suspect that policies designed to close a country's regional economic disparities will enjoy more widespread support than policies aimed to address interpersonal inequalities, as regional inequalities represent an inequality of opportunity and are thus, more likely to be perceived as unfair or illegitimate (Rawls, 1999; Roemer, 1998).

# **Bibliography**

- Aarts, K., & Thomassen, J. (2008). Satisfaction with democracy: Do institutions matter? *Electoral Sutdies*, 27(1), 5–18.
- Abrams, D., & Grant, P. R. (2012). Testing the social identity relative deprivation (SIRD) model of social change: The political rise of Scottish nationalism. *British Journal of Social Psychology*, *51*(4), 674–689.
- Adler, D., & Ansell, B. (2020). Housing and populism. West European Politics, 43(2), 344–365.
- Adler, N. E., Epel, E. S., Castellazzo, G., & Ickovics, J. R. (2000). Relationship of subjective and objective social status with psychological and physiological functioning: Preliminary data in healthy, White women. *Health Psychology*, 19(6), 586–592.
- After Election Victory, Boris Johnson Says 'We Are Going to Unite.' (2019, December 13). *The New York Times*. https://www.nytimes.com/2019/12/13/world/europe/uk-election-brexit.html
- Alesina, A., & Angeletos, G. M. (2005). Fairness and redistribution. *American Economic Review*, 95(4), 960–980.
- Alesina, A., Cozzi, G., & Mantovan, N. (2012). The evolution of ideology, fairness and redistribution. *The Economic Journal*, 122(565), 1244–1261.
- Almås, I., Cappelen, A. W., & Tungodden, B. (2020). Cutthroat capitalism versus cuddly socialism: Are Americans more meritocratic and efficiency-seeking than Scandinavians? *Journal of Political Economy*, *128*(5), 1753–1788.
- Almond, G. A., & Verba, S. (1965). The civic culture. Little, Brown.
- Andersen, R. (2012). Support for democracy in cross-national perspective: The detrimental effect of economic inequality. *Research in Social Stratification and Mobility*, *30*(4), 389–402.
- Anderson, C. J. (2007). The interaction of structures and voting behavior. In R. J. Dalton & H. Klingemann (Eds.), *Oxford handbook of political behavior* (pp. 589–609). Oxford University Press.
- Anderson, C. J., Blais, A., Bowler, S., Donovan, T., & Listhaug, O. (2005). *Losers' consent: Elections and democratic legitimacy*. Oxford University Press.
- Anderson, C. J., & Guilory, C. A. (1997). Political institutions and satisfaction with democracy: A cross-national analysis of consensus and majoritarian systems. *American Political Science Review*, *91*(1), 66–81.

- Anderson, C. J., & Singer, M. M. (2008). The Sensitive Left and the Impervious Right: Multilevel Models and the Politics of Inequality, Ideology, and Legitimacy in Europe. *Comparative Political Studies*, *41*(4–5), 564–599.
- Anderson, C. J., & Tverdova, Y. V. (2003). Corruption, political allegiances, and attitudes toward government in contemporary democracies. *American Journal of Political Science*, 47(1), 91–109.
- Ansell, B., Hjorth, F., Nyrup, J., & Larsen, M. V. (2021). Sheltering Populists? House Prices and the Support for Populist Parties. *The Journal of Politics*, 000–000.
- APSA Task Force on Inequality and American Democracy. (2004). American democracy in an age of rising inequality. *Perspectives on Politics*, 24(4), 651–670.
- Armingeon, K., & Guthmann, K. (2014). Democracy in crisis? The declining support for national democracy in European countries, 2007–2011. *European Journal of Political Research*, 53(3), 423–442.
- Arzheimer, K. (2009). Contextual Factors and the Extreme Right Vote in Western Europe, 1980–2002. *American Journal of Political Science*, 53(2), 259–275.
- Autor, D. H., Dorn, D., & Hanson, G. H. (2013). The China Syndrome: Local Labor Market Effects of Import Competition in the United States. *American Economic Review*, 103(6), 2121–2168.
- Autor, D. H., Dorn, D., & Hanson, G. H. (2016). The China Shock: Learning from Labor-Market Adjustment to Large Changes in Trade. *Annual Review of Economics*, 8(1), 205–240.
- Aytaç, S. E., Çarkoğlu, A., & Elçi, E. (2021). Partisanship, elite messages, and support for populism in power. *European Political Science Review*, *13*(1), 23–39.
- Baccini, L., & Weymouth, S. (2021). Gone For Good: Deindustrialization, White Voter Backlash, and US Presidential Voting. *American Political Science Review*, 115(2), 550–567.
- Ballard-Rosa, C., Jensen, A., & Scheve, K. (2022). Economic Decline, Social Identity, and Authoritarian Values in the United States. *International Studies Quarterly*, 66(1), sqab027.
- Barberá, P., Boydstun, A. E., Linn, S., McMahon, R., & Nagler, J. (2021). Automated Text Classification of News Articles: A Practical Guide | Political Analysis | Cambridge Core. *Political Analysis*, 29, 19–42.
- Barca, F., McCann, P., & Rodríguez-Pose, A. (2012). The Case for Regional Development Intervention: Place-Based Versus Place-Neutral Approaches. *Journal of Regional Science*, 52(1), 134–152.

- Barro, R. J., & Sala-i-Martin, X. (1992). Convergence. *Journal of Political Economy*, 100(2), 223–251.
- Barro, R. J., Sala-I-Martin, X., Blanchard, O. J., & Hall, R. E. (1991). Convergence Across States and Regions. *Brookings Papers on Economic Activity*, 1991(1), 107–182.
- Bartels, L. M. (1996, September). *Politicians and the press: Who leads, who follows?* Annual Meeting of the American Political Science Association, San Francisco.
- Becker, S. O., Fetzer, T., & Novy, D. (2017). Who voted for Brexit? A comprehensive district-level analysis. *Economic Policy*, *32*(92), 601–650.
- Bélanger, E., & Aarts, K. (2006). Explaining the Rise of the LPF: Issues, Discontent, and the 2002 Dutch Election. *Acta Politica*, 41(1), 4–20.
- Bélanger, É., & Meguid, B. M. (2008). Issue salience, issue ownership, and issue-based vote choice. *Electoral Studies*, 27(3), 477–491.
- Beramendi, P., & Anderson, C. J. (Eds.). (2008). *Democracy, inequality, and representation in comparative perspective*. Russel Sage Foundation.
- Berinsky, A. J., Huber, G. A., & Lenz, G. S. (2012). Evaluating Online Labor Markets for Experimental Research: Amazon.com's Mechanical Turk. *Political Analysis*, 20(3), 351–368.
- Bishop, B. (2009). *The Big Sort: Why the Clustering of Like-minded America is Tearing Us Apart*. Houghton Mifflin Harcourt.
- Blais, A., & Gélineau, F. (2007). Winning, losing and satisfaction with democracy. *Political Studies*, 55(2), 425–441.
- Blakeley, G. (2020, October 17). Coronavirus pandemic has pitted England's mayors against London. *The Conversation*. http://theconversation.com/coronavirus-pandemic-has-pitted-englands-mayors-against-london-148288
- Bolet, D. (2021). Drinking Alone: Local Socio-Cultural Degradation and Radical Right Support—The Case of British Pub Closures. *Comparative Political Studies*, *54*(9), 1653–1692.
- Boukes, M. (2019). Agenda-Setting With Satire: How Political Satire Increased TTIP's Saliency on the Public, Media, and Political Agenda. *Political Communication*, *36*(3), 426–451.
- Bounds, A. (2018, May 9). Andy Burnham sees more devolution as 'best answer' to Brexit. *Financial Times*. https://www.ft.com/content/7a6aa9c0-52ce-11e8-b3ee-41e0209208ec
- Boydstun, A. E., Highton, B., & Linn, S. (2018). Assessing the Relationship between Economic News Coverage and Mass Economic Attitudes. *Political Research Quarterly*, 71(4), 989–1000.

- Boynton, G., & Richardson, G. W. (2016). Agenda setting in the twenty-first century. *New Media & Society*, 18(9), 1916–1934.
- Bratton, M., & Mattes, R. (2001). Support for democracy in Africa: Instrinc or instrumental? *British Journal of Political Science*, *31*(3), 447–474.
- Brewer, M. B. (1991). The Social Self: On Being the Same and Different at the Same Time. *Personality and Social Psychology Bulletin*, 17(5), 475–482.
- Broz, J. L., Frieden, J., & Weymouth, S. (2021). Populism in place: The economic geography of the globalization backlash. *International Organization*, 72(2), 464–494.
- Buchan, I. E., Kontopantelis, E., Sperrin, M., Chandola, T., & Doran, T. (2017). North-South disparities in English mortality1965–2015: Longitudinal population study. *J Epidemiol Community Health*, 71(9), 928–936.
- Budak, C., Goel, S., & Rao, J. M. (2016). Fair and Balanced? Quantifying Media Bias through Crowdsourced Content Analysis. *Public Opinion Quarterly*, 80(S1), 250–271.
- Canache, D. (1996). Looking out my back door: The neighborhood context and perceptions of relative deprivation. *Political Research Quarterly*, 49(3), 547–571.
- Canache, D., Mondak, J. J., & Seligson, M. A. (2001). Meaning and measurment in cross-national research on satisfaction with democracy. *Public Opinion Quarterly*, 65(4), 506–528.
- Canes-Wrone, B., & De Marchi, S. (2002). Presidential Approval and Legislative Success. *Journal of Politics*, 64(2), 491–509.
- Carreras, M., Irepoglu Carreras, Y., & Bowler, S. (2019). Long-Term Economic Distress, Cultural Backlash, and Support for Brexit. *Comparative Political Studies*, *52*(9), 1396–1424.
- Caselli, M., Fracasso, A., & Traverso, S. (2021). Globalization, robotization, and electoral outcomes: Evidence from spatial regressions for Italy. *Journal of Regional Science*, 61(1), 86–111.
- Ceron, A., Curini, L., & Iacus, S. M. (2016). First- and second-level agenda setting in the Twittersphere: An application to the Italian political debate. *Journal of Information Technology & Politics*, 13(2), 159–174.
- Champion, T., & Shuttleworth, I. (2017). Is longer-distance mgration slowing? An analysis of the annual record for England and Wales since the 1970s. *Population, Space, and Place*, 23, 1–14.
- Checchi, D., & Peragine, V. (2010). Inequality of opportunity in Italy. *The Journal of Economic Inequality*, 8(4), 429–450.

- Chetty, R., Hendren, N., Kline, P., & Saez, E. (2014). Where is the land of opportunity? The geography of intergenerational mobility in the United States. *The Quarterly Journal of Economics*, 129(4), 1553–1623.
- Cheung, F., & Lucas, R. E. (2016). Income inequality is associated with stronger social comparison effects: The effect of relative income on life satisfaction. *Journal of Personality and Social Psychology*, 110(2), 332–341.
- Cho, W. K. T., Gimpel, J. G., & Hui, I. S. (2013). Voter Migration and the Geographic Sorting of the American Electorate. *Annals of the Association of American Geographers*, 103(4), 856–870.
- Claassen, C. (2020). Does public support help democrayc survive? *American Journal of Political Science*, 64(1), 118–134.
- Clarke, H. D., Dutt, N., & Kornberg, A. (1993). The Political Economy of attitudes toward polity and society in Western European democracies. *The Journal of Politics*, 55(4), 998–1021.
- Cohen, B. (1963). The Press and Foreign Policy. Princeton University Press.
- Cohen, J. (1988). Statistical power analysis for the behavioral sciences (2nd ed.). Routledge.
- Colantone, I., & Stanig, P. (2018a). Global Competition and Brexit. *American Political Science Review*, 112(2), 201–218.
- Colantone, I., & Stanig, P. (2018b). The Trade Origins of Economic Nationalism: Import Competition and Voting Behavior in Western Europe. *American Journal of Political Science*, 62(4), 936–953.
- Collins, T. A., & Cooper, C. A. (2012). Case Salience and Media Coverage of Supreme Court Decisions: Toward a New Measure. *Political Research Quarterly*, 65(2), 396–407.
- Condon, M., & Wichowsky, A. (2020a). *The economic other: Inequality in the American political imagination*. University of Chicago Press.
- Condon, M., & Wichowsky, A. (2020b). Inequality in the Social Mind: Social Comparison and Support for Redistribution. *The Journal of Politics*, 82(1), 149–161.
- Converse, P. E. (1990). Popular representation and the distribution of information. In J. A. Ferejohn & J. H. Kuklinski (Eds.), *Information and democratic processes*. University of Illinois Press.
- Coppini, D., Alvarez, G., & Rojas, H. (2018). Entertainment, News, and Income Inequality: How Colombian Media Shape Perceptions of Income Inequality and Why It Matters. *International Journal of Communication*, 12(0), 24.
- Coronavirus: Northern England "worst hit" by pandemic. (2020a, November 11). *BBC News*. https://www.bbc.com/news/uk-england-54892161

- Coronavirus: "Winter of discontent" faces North, warns Andy Burnham. (2020b, October 4). BBC News. https://www.bbc.com/news/uk-england-manchester-54409664
- Cörvers, F., & Mayhew, K. (2021). Regional inequalities: Causes and cures. *Oxford Review of Economic Policy*, *37*(1), 1–16.
- Craig, S. C., Niemi, R. G., & Silver, G. E. (1990). Political efficacy and trust: A report on the NES pilot study items. *Political Behavior*, *12*(3), 289–314.
- Cramer, K. J. (2016). *The Politics of Resentment: Rural Consciousness in Wisconsin and the Rise of Scott Walker*. University of Chicago Press.
- Cramer Walsh, K. J. (2012). Putting inequality in its place: Rural consciousness and the power of perspective. *American Political Science Review*, 106(113), 517–532.
- Criado, H., & Herreros, F. (2007). Political Support: Taking Into Account the Institutional Context. *Comparative Political Studies*, 40(12), 1511–1532.
- Cutts, D., Goodwin, M., Heath, O., & Surridge, P. (2020). Brexit, the 2019 General Election and the Realignment of British Politics. *The Political Quarterly*, *91*(1), 7–23.
- Dafoe, A., Zhang, B., & Caughey, D. (2018). Information equivalence in survey experiments. *Political Analysis*, 26(4), 399–416.
- Dahl, R. A. (1971). Polyarchy: Participation and opposition. Yale University Press.
- Dahlberg, S., & Holmberg, S. (2014). Democracy and Bureaucracy: How their Quality Matters for Popular Satisfaction. *West European Politics*, *37*(3), 515–537.
- D'Alessio, D., & Allen, M. (2000). Media bias in presidential elections: A meta-analysis. *Journal of Communication*, 50(4), 133–156.
- Dalton, R. J. (2004). Democratic challenges, democratic choices: The erosion of political support in advanced industrial economies. Oxford University Press.
- Dalton, R. J., Beck, P. A., Huckfeldt, R., & Koetzle, W. (1998). A Test of Media-Centered Agenda Setting: Newspaper Content and Public Interests in a Presidential Election. *Political Communication*, *15*(4), 463–481.
- De Ruyter, A., Martin, R., & Tyler, P. (2021). Geographies of discontent: Sources, manifestations and consequences. *Cambridge Journal of Regions, Economy and Society*, 14(3), 381–393.
- De Wall, F. (2009). The age of empathy: Nature's lesson for a kinder society. Harmony Books.
- Di Matteo, D., & Mariotti, I. (2021). Italian discontent and right-wing populism: Determinants, geographies, patterns. *Regional Science Policy & Practice*, *13*(2), 371–396.

- Diermeier, M., Goecke, H., Niehues, J., & Thomas, T. (2017). *Impact of inequality-related media coverage on the concerns of the citzens* (Working Paper No. 258). DICE Discussion Paper. https://www.econstor.eu/handle/10419/162781
- Dijkstra, L., Garcilazo, E., & McCann, P. (2013). The Economic Performance of European Cities and City Regions: Myths and Realities. *European Planning Studies*, 21(3), 334–354.
- Dijkstra, L., Poelman, H., & Rodríguez-Pose, A. (2020). The geography of EU discontent. *Regional Studies*, *54*(6), 737–753.
- Djerf-Pierre, M., & Shehata, A. (2017). Still an Agenda Setter: Traditional News Media and Public Opinion during the Transition from Low to High Choice Media Environments. *Journal of Communication*, 67(5), 733–757.
- Doorenspleet, R. (2012). Critical citizens, democratic support and satisfaction in African democracies. *International Political Science Review*, *33*(3), 279–300.
- Doran, T., Drever, F., & Whitehead, M. (2004). Is there a north-south divide in social class inequalities in health in Great Britain? Cross sectional study using data from the 2001 census. *BMJ*, 328(7447), 1043–1045.
- Dorling, D., & Smith, G. D. (2020, December 2). Why is COVID-19 more severe in the north of England? The story in four graphs. *The Conversation*. http://theconversation.com/why-is-covid-19-more-severe-in-the-north-of-england-the-story-in-four-graphs-151239
- Duffy, B., Hewlett, K., Hesketh, R., Benson, R., & Wager, A. (2021). *Unequal Britain: Attitudes to inequalities after Covid-19*. The Policy Institute at King's College London. https://www.kcl.ac.uk/news/unequal-britain-attitudes-to-inequality-in-light-of-covid
- Dursun-Ozkanca, O. (2011). European Union Enlargement and British Public Opinion: The Agenda-Setting Power of the Press. *Perspectives on European Politics and Society*, 12(2), 139–160.
- Easton, D. (1965). A system analysis of political life. Wiley.
- Edwards, G. C., Mitchell, W., & Welch, R. (1995). Explaining Presidential Approval: The Significance of Issue Salience. *American Journal of Political Science*, 39(1), 108–134.
- Engelhart, K. (2014, September 17). Scotland: The World's First Referendum on Inequality? *The Atlantic*. https://www.theatlantic.com/international/archive/2014/09/scotland-a-referendum-on-inequality/380405/
- Erlingsson, G. O., Linde, J., & Öhrvall, R. (2014). Not so fair after all? Preceptions of procedural fairness and satisfaction with democracy in the Nordic welfare states. *International Journal of Public Administration*, *37*(2), 106–119.
- Eshbaugh-Soha, M., & Peake, J. S. (2005). Presidents and the Economic Agenda. *Political Research Quarterly*, 58(1), 127–138.

- Essletzbichler, J., Disslbacher, F., & Moser, M. (2018). The victims of neoliberal globalisation and the rise of the populist vote: A comparative analysis of three recent electoral decisions. *Cambridge Journal of Regions, Economy and Society*, 11(1), 73–94.
- Essletzbichler, J., Moser, M., Derndorfer, J., & Staufer-Steinnocher, P. (2021). Spatial variation in populist right voting in Austria, 2013–2017. *Political Geography*, 90, 102461.
- Ezcurra, R., & Rodríguez-Pose, A. (2009). Measuring the regional divide. In R. Capello & P. Nijkamp (Eds.), *Handbook of regional growth and development theories* (pp. 329–353). Edward Elgar.
- Feather, N. T. (2006). Deservingness and emotions: Applying the structural model of deservingness to the analysis of affective reactions to outcomes. *European Review of Social Psychology*, *17*(1), 38–73.
- Feler, L., & Senses, M. Z. (2017). Trade shocks and the provision of local public goods. *American Economic Journal: Economic Policy*, 9(4), 101–143.
- Festinger, L. (1954). A Theory of Social Comparison Processes. *Human Relations*, 7(2), 117–140.
- Fetzer, T. (2019). Did Austerity Cause Brexit? *American Economic Review*, 109(11), 3849–3886.
- Fieldhouse, E. A., Evans, G., Green, J., Mellon, J., & Prosser, C. (2021). *Volatility, Realignment and Electoral Shocks: Brexit and the UK General Election of 2019* (SSRN Working Paper No. 3764477). Social Science Research Network.
- Fiske, S. T. (2011). Envy up, scorn down: How status divides us. Russel Sage.
- Fitzgerald, J. (2018). Close to Home: Local Ties and Voting Radical Right in Europe. Cambridge University Press.
- Floerkemeier, H., Spatafora, N., & Venables, A. (2021). *Regional disparities, growth, and inclusiveness (IMF Working Paper, WP/21/39)*. International Monetary Fund (IMF).
- Foa, R. S., Klassen, A., Slade, M., Rand, A., & Collins, R. (2020). *The global satisfaction with democracy report 2020*. Centre for the Future of Democracy.
- Fong, C. (2001). Social preferences, self-interest, and the demand for redistribution. *Journal of Public Economics*, 82(2), 225–246.
- Fratesi, U., & Rodríguez-Pose, A. (2016). The crisis and regional employment in Europe: What role for sheltered economies? *Cambridge Journal of Regions, Economy and Society*, 9(1), 33–57.
- Frick, S. A., & Rodríguez-Pose, A. (2018). Big or Small Cities? On city size and economic growth. *Growth and Change*, 49(1), 4–32.

- Gallego, A., Buscha, F., Sturgis, P., & Oberski, D. (2016). Places and Preferences: A Longitudinal Analysis of Self-Selection and Contextual Effects. *British Journal of Political Science*, 46(3), 529–550.
- Ganong, P., & Shoag, D. (2017). Why has regional income convergence in the US declined? *Journal of Urban Economics*, 102, 76–90.
- García-Sánchez, E., Osborne, E., Willis, G. B., & Rodríguez-Bailón, R. (2020). Attitudes toward redistribution and the interplay between perceptions and beliefs about inequality. *British Journal of Social Psychology*, *59*(1), 111–135.
- Garcilazo, E., Moreno-Monroy, A. I., & Oliveira Martins, J. (2021). Regional inequalities and contributions to aggregate growth in the 2000s: An EU vs US comparison based on functional regions. *Oxford Review of Economic Policy*, *37*(1), 70–96.
- Gardiner, B., Martin, R., Sunley, P., & Tyler, P. (2013). Spatially unbalanced growth in the British economy. *Journal of Economic Geography*, *13*(6), 889–928.
- Gavenda, M., & Umit, R. (2016). The 2016 Austrian Presidential Election: A Tale of Three Divides. *Regional & Federal Studies*, 26(3), 419–432.
- Gavin, N. T., & Sanders, D. (2003). The Press and its Influence on British Political Attitudes under New Labour. *Political Studies*, *51*(3), 573–591.
- Gbohoui, W., Lam, R. W., & Lledo, V. (2019). *The great divide: Regional inequality and fiscal policy (IMF Working Paper No. WP/19/88)*. International Monetary Fund (IMF).
- Geary, F., & Stark, T. (2016). What happened to regional inequality in Britain in the twentieth century? *The Economic History Review*, 69(1), 215–228.
- Gentner, D., & Medina, J. (1998). Similarity and the development of rules. *Cognition*, 65(2), 263–297.
- Gest, J. (2016). The new minority: White working class politics in an age of immigration and ienquality. Oxford University Press.
- Gest, J., Reny, T., & Mayer, J. (2018). Roots of the Radical Right: Nostalgic Deprivation in the United States and Britain. *Comparative Political Studies*, *51*(13), 1694–1719.
- Geurkink, B., Zaslove, A., Sluiter, R., & Jacobs, K. (2020). Populist Attitudes, Political Trust, and External Political Efficacy: Old Wine in New Bottles? *Political Studies*, 68(1), 247–267.
- Gil Canaleta, C., Pascual Arzoz, P., & Rapun Garate, M. (2004). Regional Economic Disparities and Decentralisation. *Urban Studies*, 41(1), 71–94.
- Gilardi, F., Gessler, T., Kubli, M., & Müller, S. (2022). Social Media and Political Agenda Setting. *Political Communication*, *39*(1), 39–60.

- Giovannini, A., & Rose, J. (2020). England: The North-South divide. In M. Garnett & H. Pillmoor (Eds.), *The Routledge Handbook of British Politics and Society*. Routledge.
- Givens, T., & Luedtke, A. (2005). European Immigration Policies in Comparative Perspective: Issue Salience, Partisanship and Immigrant Rights. *Comparative European Politics*, 3(1), 1–22.
- Glaeser, E. L. (2011). Triump of the city: How our greatest invention makes us richer, smarter, greener, healthier and happier. Penguin.
- Glaeser, E. L., & Gottlieb, J. D. (2009). The Wealth of Cities: Agglomeration Economies and Spatial Equilibrium in the United States. *Journal of Economic Literature*, 47(4), 983–1028.
- Goetz, S. J., Davlasheridze, M., Han, Y., & Fleming-Muñoz, D. A. (2019). Explaining the 2016 Vote for President Trump across U.S. Counties. *Applied Economic Perspectives and Policy*, 41(4), 703–722.
- Goldberg, S., Wyss, D., & Bächtiger, A. (2020). Deliberating or thinking (twice) about democratic preferences: What German citizens want from democracy. *Political Studies*, 68(2), 311–331.
- Goodwin, M. J., & Heath, O. (2016). The 2016 Referendum, Brexit and the Left Behind: An Aggregate-level Analysis of the Result. *The Political Quarterly*, 87(3), 323–332.
- Gordon, I. R. (2018). In what sense left behind by globalization? Looing for a less reductionist geography of the populist surge in Europe. *Cambridge Journal of Regions, Economy and Society*, 11, 95–113.
- Gray, M., & Barford, A. (2018). The depths of the cuts: The uneven geography of local government austerity. *Cambridge Journal of Regions, Economy and Society*, 11(3), 541–563.
- Green, J., Hellwig, T., & Fieldhouse, E. (2022). Who Gets What: The Economy, Relative Gains and Brexit. *British Journal of Political Science*, *52*(1), 320–338.
- Greenslade, R. (2014, September 18). England's northern newspapers unite to demand Scottish-style devolution. *The Guardian*. https://www.theguardian.com/media/greenslade/2014/sep/19/trinity-mirror-johnston-press
- Griffin, J. D., Jonge, C. K. de, & Velasco-Guachalla, V. X. (2021). Deprivation in the Midst of Plenty: Citizen Polarization and Political Protest. *British Journal of Political Science*, 51(3), 1080–1096.
- Grimmer, J., & Stewart, B. M. (2013). Text as Data: The Promise and Pitfalls of Automatic Content Analysis Methods for Political Texts. *Political Analysis*, 21(3), 267–297.

- Gurr, T. R. (1970). Why men rebel. Princeton University Press.
- Hakmiller, K. L. (1966). Threat as a determinant of downward comparison. *Journal of Experimental Social Psychology*, 1, 32–39.
- Han, S. M., & Chang, E. C. (2016). Economic inequality, winner-loser gap, and satisfaction with democracy. *Electoral Studies*, 44, 85–97.
- Harder, R. A., Sevenans, J., & Van Aelst, P. (2017). Intermedia Agenda Setting in the Social Media Age: How Traditional Players Dominate the News Agenda in Election Times. *The International Journal of Press/Politics*, 22(3), 275–293.
- Hart, A., & Middleton, J. A. (2014). Priming under Fire: Reverse Causality and the Classic Media Priming Hypothesis. *The Journal of Politics*, 76(2), 581–592.
- Hechter, M. (1975). Internal colonialism. University of California Press.
- Hendrickson, C., Muro, M., & Galston, W. A. (2018). *Countering the geography of discontent: Strategies for left-behind places*. Brookings. https://www.brookings.edu/research/countering-the-geography-of-discontent-strategies-for-left-behind-places/
- Hetherington, M. J. (1996). The Media's Role in Forming Voters' National Economic Evaluations in 1992. *American Journal of Political Science*, 40(2), 372–395.
- Hobolt, S. B. (2016). The Brexit vote: A divided nation, a divided continent. *Journal of European Public Policy*, 23(9), 1259–1277.
- Hobolt, S. B., & Klemmemsen, R. (2005). Responsive Government? Public Opinion and Government Policy Preferences in Britain and Denmark. *Political Studies*, *53*(2), 379–402.
- Hochschild, J. L. (1981). What's Fair? American Beliefs about Distributive Justice. Harvard University Press.
- Holton, K., & Sandle, P. (2022, February 2). Embattled UK PM Johnson launches plan to tackle regional inequality. *Reuters*. https://www.reuters.com/world/uk/uks-johnson-tries-reset-premiership-with-levelling-up-policies-2022-02-02/
- Hooghe, M., Marien, S., & Oser, J. (2017). Great expectations: The effect of democratic ideals on political trust in European democracies. *Contemporary Politics*, 23(2), 214–230.
- Hopkins, D. J., Kim, E., & Kim, S. (2017). Does newspaper coverage influence or reflect public perceptions of the economy? *Research & Politics*, 4(4), 1–7.
- Hudson, R. (2013). Thatcherism and its geographical legacies: The new map of socio-spatial inequality in the Divided Kingdom. *The Geographical Journal*, 179(4), 377–381.

- Hutter, S., & Grande, E. (2014). Politicizing Europe in the National Electoral Arena: A Comparative Analysis of Five West European Countries, 1970–2010. *JCMS: Journal of Common Market Studies*, 52(5), 1002–1018.
- Iammarino, S., Rodríguez-Pose, A., & Storper, M. (2019). Regional inequality in Europe: Evidence, theory, and policy implications. *Journal of Economic Geography*, 19, 273–298.
- IMF. (2019). World Economic Outlook: Global Manufacturing Downturn, Rising Trad Barriers. International Monetary Fund (IMF).
- Inglehart, R. F. (2016). The Danger of Deconsolidation: How Much Should We Worry? *Journal of Democracy*, 27(3), 18–23.
- Innes, D., & Tetlow, G. (2015). Delivering Fiscal Squeeze by Cutting Local Government Spending. *Fiscal Studies*, *36*(3), 303–325.
- Iyengar, S. (1987). Television News and Citizens' Explanations of National Affairs. *American Political Science Review*, 81(3), 815–831.
- Iyengar, S., & Kinder, D. R. (1987). News that matters. University of Chicago Press.
- Jennings, W., & Stoker, G. (2016). The Bifurcation of Politics: Two Englands. *The Political Quarterly*, 87(3), 372–382.
- Jennings, W., & Stoker, G. (2018). The divergent dynamics of cities and towns: Geographical polarisation after Brexit. *The Political Quarterly*. https://eprints.soton.ac.uk/425899/
- Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. J. (2003). Political conservatism as motivated social cognition. *Psychological Bulletin*, 129(3), 339–375.
- Jost, J. T., & Hunyady, O. (2003). The psychology of system justification and the palliative function of ideology. *European Review of Social Psychology*, 13(1), 111–153.
- Kaltwasser, C. R., & Hauwaert, S. M. V. (2020). The populist citizen: Empirical evidence from Europe and Latin America. *European Political Science Review*, *12*(1), 1–18.
- Karp, J. A., & Banducci, S. A. (2008). Political Efficacy and Participation in Twenty-Seven Democracies: How Electoral Systems Shape Political Behaviour. *British Journal of Political Science*, 38(2), 311–334.
- Karp, J. A., & Milazzo, C. (2015). Democratic Scepticism and Political Participation in Europe. *Journal of Elections, Public Opinion and Parties*, 25(1), 97–110.
- Kayser, M. A., & Peress, M. (2021). Does the Media Cover the Economy Accurately? An Analysis of Sixteen Developed Democracies. *Quarterly Journal of Political Science*, 16(1), 1–33.

- Kedar, O., & Shively, W. P. (2005). Introduction to the special issue. *Political Analysis*, 13(4), 297–300.
- Kenny, M., & Luca, D. (2021). The urban-rural polarisation of political disenchantment: An investigation of social and political attitudes in 30 European countries. *Cambridge Journal of Regions, Economy and Society*, 14(3), 565–582.
- Kim, E. (forthcoming). Entertaining Beliefs in Economic Mobility. *American Journal of Political Science*, n/a(n/a).
- Kim, H., & Lee, Y. (2018). Socioeconomic status, perceived inequality of opportunity, and attitudes toward redistribution. *The Social Science Journal*, *55*(3), 300–312.
- Kinder, D. R. (1998). Communication and Opinion. *Annual Review of Political Science*, 1, 167–197.
- Kinder, D. R. (2004). Pale democracy: Opinion and action in postwar America. In E. D. Mansfield & R. Sisson (Eds.), *The evolution of political knowledge: Theory and inquiry in American politics*. The Ohio State University Press.
- Kluegel, J. R., & Mason, D. S. (2004). Fairness matters: Social justice and political legitimacy in post-communist Europe. *Europe-Asia Studies*, *56*(6), 813–834.
- Kluegel, J. R., & Smith, E. R. (1986). *Beliefs about inequality: Americans' views of what is and what ought to be.* Aldine de Gruyter.
- Koeppen, L., Ballas, D., Edzes, A., & Koster, S. (2021). Places that don't matter or people that don't matter? A multilevel modelling approach to the analysis of the geographies of discontent. *Regional Science Policy & Practice*, *13*(2), 221–245.
- Krieckhaus, J., Son, B., Bellinger, N. M., & Wells, J. M. (2014). Economic Inequality and Democratic Support. *The Journal of Politics*, 76(1), 139–151.
- Kriesi, H. (2020). Is There a Crisis of Democracy in Europe? *Politische Vierteljahresschrift*, 61(2), 237–260.
- Krosnick, J. A., & Kinder, D. R. (1990). Altering the Foundations of Support for the President Through Priming. *American Political Science Review*, 84(2), 497–512.
- Kyriacou, A. P., Muinelo-Gallo, L., & Roca-Sagalés, O. (2015). Fiscal decentralization and regional disparities: The importance of good governance. *Papers in Regional Science*, 94(1), 89–107.
- Lazarsfeld, P. F., & Merton, R. K. (1948). Mass communication, popular taste, and organized social action. In B. L. (Ed.), *The Communication of Ideas*. Harper.
- Lee, N., Morris, K., & Kemeny, T. (2018). Immobility and the Brexit vote. *Cambridge Journal of Regions, Economy and Society*, 11(1), 143–163.

- Lenzi, C., & Perucca, G. (2021). People or Places that Don't Matter? Individual and Contextual Determinants of the Geography of Discontent. *Economic Geography*, 97(5), 415–445.
- Linde, J. (2012). Why feed the hand that bites you? Perceptions of procedural fairness and system support in post-communist democracies. *European Journal of Political Research*, 51, 410–434.
- Linde, J., & Ekman, J. (2003). Satisfaction with democracy: A note on a frequently used indicator in comparative politics. *European Journal of Political Research*, 42(3), 391–408.
- Lippmann, W. (1925). The Phantom Public. Harcourt Brace.
- Lippmann, W. (1965). *Public Opinion*. New York. (Original work published 1922)
- Lipset, S. M. (1959). Some social requisited of democracy: Economic development and political legitimacy. *American Political Science Review*, *53*(1), 69–106.
- Logan, T., Hardy, B., & Parman, J. (2021). Long-run analysis of regional inequalities in the US. *Oxford Review of Economic Policy*, *37*(1), 49–69.
- Luttmer, E. F. P. (2005). Neighbors as Negatives: Relative Earnings and Well-Being. *The Quarterly Journal of Economics*, 120(3), 963–1002.
- Maas, C. J., & Hox, J. J. (2005). Sufficient sample sizes for multilevel modeling. *Methodology*, *1*(3), 85–91.
- Magni, G. (2017). It's the emotions, Stupid! Anger about the economic crisis, low political efficacy, and support for populist parties. *Electoral Studies*, 50, 91–102.
- Martin, R. L. (2004). The contemporary debate over the North-South divide: Images and realities of regional inequality in late-twentieth-century Britain (A. R. H. Baker & M. Billinge, Eds.; pp. 15–43). Cambridge University Press.
- Martin, R., Sunley, P., Gardiner, B., & Tyler, P. (2016). How Regions React to Recessions: Resilience and the Role of Economic Structure. *Regional Studies*, *50*(4), 561–585.
- Martini, S., & Quaranta, M. (2019). Political support among winners and losers: Within- and between-country effects of structure, process and performance in Europe. *European Journal of Political Research*, 58(1), 341–361.
- Mattes, R., & Bratton, M. (2007). Learning about democracy in Africa: Awareness, performance, and experience. *American Journal of Political Science*, 51(1), 192–217.
- Maxwell, R. (2019). Cosmopolitan Immigration Attitudes in Large European Cities: Contextual or Compositional Effects? *American Political Science Review*, 113(2), 456–474.

- McCall, L. (2013). The undeserving rich: American beliefs about inequality, opportunity, and redistribution. Cambridge University Press.
- McCall, L., Burk, D., Laperrière, M., & Richeson, J. A. (2017). Exposure to rising inequality shapes Americans' opportunity beliefs and policy support. *Proceedings of the National Academy of Sciences of the United States of America*, 114(36), 9593–9598.
- McCann, P. (2016). The UK regional-national economic problem: Geography, globalisation, and governance. Routledge.
- McCann, P. (2020). Perceptions of regional inequality and the geography of discontent: Insights from the UK. *Regional Studies*, *54*(2), 256–267.
- McCombs, M. E., & Shaw, D. L. (1972). The agenda-setting function of mass media. *Public Opinion Quarterly*, *36*(2), 176–187.
- McCombs, M. E., & Shaw, D. L. (1993). The Evolution of Agenda-Setting Research: Twenty-Five Years in the Marketplace of Ideas. *Journal of Communication*, 43(2), 58–67.
- McCombs, M. E., Shaw, D. L., & Weaver, D. H. (2014). New Directions in Agenda-Setting Theory and Research. *Mass Communication and Society*, 17(6), 781–802.
- McCoy, S. K., & Major, B. (2007). Priming meritocracy and the psychological justification of inequality. *Journal of Experimental Social Psychology*, 43(3), 341–351.
- McKay, L. (2019). 'Left behind' people, or places? The role of local economies in perceived community representation. *Electoral Studies*, 60, 102046.
- McKay, L., Jennings, W., & Stoker, G. (2021). Political Trust in the "Places That Don't Matter." *Frontiers in Political Science*, 3.
- McLaren, L., Boomgaarden, H., & Vliegenthart, R. (2018). News Coverage and Public Concern About Immigration in Britain. *International Journal of Public Opinion Research*, 30(2), 173–193.
- Mijs, J. J. B. (2021). The paradox of inequality: Income inequality and belief in meritocracy go hand in hand. *Socio-Economic Review*, 19(1), 7–35.
- Miller, J. M., & Krosnick, J. A. (2000). News Media Impact on the Ingredients of Presidential Evaluations: Politically Knowledgeable Citizens Are Guided by a Trusted Source. *American Journal of Political Science*, 44(2), 301–315.
- Mitsch, F., Lee, N., & Morrow, E. R. (2021). Faith no more? The divergence of political trust between urban and rural Europe. *Political Geography*, 89, 1–12.
- Moretti, E. (2012). The new geography of jobs. Houghton Mifflin Harcourt.

- Mussweiler, T., & Epstude, K. (2009). Relatively fast! Efficiency advantages of comparative thinking. *Journal of Experimental Psychology: General*, 138(1), 1–21.
- Mutz, D. C. (1998). *Impersonal influence: How perceptions of mass collectives affect political attitudes*. Cambridge University Press.
- Newman, J. (2021, July 23). What actually is "levelling up"? What we know about Boris Johnson's agenda and what we don't. *The Conversation*. http://theconversation.com/what-actually-is-levelling-up-what-we-know-about-boris-johnsons-agenda-and-what-we-dont-164886
- Niemi, R. G., & Bartels, L. M. (1985). New Measures of Issue Salience: An Evaluation. *The Journal of Politics*, 47(4), 1212–1220.
- Norris, P. (1999). *Critical citizens: Global support for democratic government*. Oxford University Press.
- Norris, P. (2011). Democratic deficit: Critical citizens revisited. Cambridge University Press.
- Norris, P., & Inglehart, R. (2019). *Cultural backlash: Trump, Brexit, and Authoritarian Populism*. Cambridge University Press.
- OECD. (2019). *OECD Regional Outlook 2019: Leveraging Megatrends for Cities and Rural Areas*. OECD Publishing.
- Office for National Statistics. (2021). *Estimates of the population for the UK, England and Wales, Scotland and Northern Ireland* [Data set]. https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationestimatesforukenglandandwalesscotlandandnorthernireland
- Oser, J., & Hooghe, M. (2018). Democratic ideals and levels of political participation: The role of political and social conceptualizations of democracy. *British Journal of Politics and International Relations*, 20(3), 711–730.
- Østby, G. (2008). Polarization, horizontal inequalities, and violent civil conflict. *Journal of Peace Research*, 45(2), 143–162.
- Østby, G., Nordås, R., & Rød, J. K. (2009). Regional Inequalities and Civil Conflict in Sub-Saharan Africa1. *International Studies Quarterly*, *53*(2), 301–324.
- Partington, R. (2020, February 6). Experts sound alarm over PM's pledge to "level up" UK economy. *The Guardian*. https://www.theguardian.com/business/2020/feb/06/economists-warning-boris-johnson-election-pledge-output
- Patana, P. (2020). Changes in local context and electoral support for the populist radical right: Evidence from Finland. *Party Politics*, 26(6), 718–729.

- Patana, P. (2021). Residential Constraints and the Political Geography of the Populist Radical Right: Evidence from France. *Perspectives on Politics*, 1–18.
- Pattie, C., & Johnston, R. (2017). Sticking to the Union? Nationalism, inequality and political disaffection and the geography of Scotland's 2014 independence referendum. *Regional & Federal Studies*, 27(1), 83–96.
- Perez-Mayo, J. (2019). Inequality of opportunity, a matter of space? *Regional Science Policy and Practice*, 11(1), 71–87.
- Pettigrew, T. F., Christ, O., Wagber, U., Meertens, R. W., Van Dick, R., & Zick, A. (2008). Relative deprivation and intergroup prejudice. *Journal of Social Issues*, 64(2), 385–401.
- Pidd, H. (2020, December 7). Covid deepens south and north of England inequalities, study finds. *The Guardian*. https://www.theguardian.com/inequality/2020/dec/07/covid-deepens-south-and-north-of-england-inequalities-study-finds
- Puga, D. (2010). The Magnitude and Causes of Agglomeration Economies. *Journal of Regional Science*, 50(1), 203–219.
- Ragas, M. W., Tran, H. L., & Martin, J. A. (2014). Media-Induced Or Search-Driven? *Journalism Studies*, 15(1), 48–63.
- Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical linear models: Applications and data analysis methods* (2nd ed.). Sage.
- Rawls, J. (1999). A theory of justice (2nd ed.). Harvard University Press.
- RePass, D. E. (1971). Issue Salience and Party Choice. *American Political Science Review*, 65(2), 389–400.
- Rice, P. G., & Venables, A. J. (2021). The persistent consequences of adverse shocks: How the 1970s shaped UK regional inequality. *Oxford Review of Economic Policy*, *37*(1), 132–151.
- Rickard, S. J. (2020). Economic Geography, Politics, and Policy. *Annual Review of Political Science*, 23(1), 187–202.
- Rickardsson, J. (2021). The urban–rural divide in radical right populist support: The role of resident's characteristics, urbanization trends and public service supply. *The Annals of Regional Science*, 67(1), 211–242.
- Rodríguez-Pose, A. (2018). The revenge of the places that don't matter (and what to do about it). *Cambridge Journal of Regions, Economy and Society*, 11, 189–209.
- Rodríguez-Pose, A., & Gill, N. (2004). Is There a Global Link between Regional Disparities and Devolution? *Environment and Planning A: Economy and Space*, *36*(12), 2097–2117.

- Roemer, J. E. (1998). Equality of opportunity. Harvard University Press.
- Rogstad, I. (2016). Is Twitter just rehashing? Intermedia agenda setting between Twitter and mainstream media. *Journal of Information Technology & Politics*, 13(2), 142–158.
- Rooduijn, M. (2018). What unites the voter bases of populist parties? Comparing the electorates of 15 populist parties. *European Political Science Review*, 10(3), 351–368.
- Rooduijn, M., van der Brug, W., & de Lange, S. L. (2016). Expressing or fuelling discontent? The relationship between populist voting and political discontent. *Electoral Studies*, 43, 32–40.
- Rosés, J. R., & Wolf, N. (2021). Regional growth and inequality in the long-run: Europe, 1900–2015. *Oxford Review of Economic Policy*, *37*(1), 17–48.
- Russell Neuman, W., Guggenheim, L., Mo Jang, S., & Bae, S. Y. (2014). The Dynamics of Public Attention: Agenda-Setting Theory Meets Big Data. *Journal of Communication*, 64(2), 193–214.
- Sachweh, P., & Sthamer, E. (2019). Why do the affluent find inequality increasingly unjust? Changing inequality and justice perceptions in Germany, 1994-2014. *European Sociological Review*, 35(5), 651–688.
- Sala-i-Martin, X. X. (1996). Regional cohesion: Evidence and theories of regional growth and convergence. *European Economic Review*, 40(6), 1325–1352.
- Sanders, D., & Gavin, N. (2004). Television News, Economic Perceptions and Political Preferences in Britain, 1997–2001. *The Journal of Politics*, 66(4), 1245–1266.
- Sanders, D., Marsh, D., & Ward, H. (1993). The Electoral Impact of Press Coverage of the British Economy, 1979–87. *British Journal of Political Science*, 23(2), 175–210.
- Sandle, P., & Young, S. (2014, September 16). Ignored and fed up, UK regions call for Scottish-style devolution. *Reuters*. https://www.reuters.com/article/uk-scotland-independence-regions-insight/insight-ignored-and-fed-up-uk-regions-call-for-scottish-style-devolution-idUKKBN0HC0B820140917
- Saxton, G. W. (2021). Governance quality, fairness perceptions, and satisfaction with democracy in Latin America. *Latin American Politics and Society*, 63(2), 122–145.
- Scala, D. J., & Johnson, K. M. (2017). Political Polarization along the Rural-Urban Continuum? The Geography of the Presidential Vote, 2000–2016. *The ANNALS of the American Academy of Political and Social Science*, 672(1), 162–184.
- Schäfer, A. (2012). Consequences of social inequality for democracy in Western Europe. *Zeitschrift Für Vergleichende Politikwissenschaft*, *6*(2), 23–45.

- Schattschneider, E. E. (1960). *The semi-sovereign people: A realist's view of demcracy in America*. Holt, Reinhart, and Winston.
- Scheve, K., & Stasavage, D. (2017). Wealth Inequality and Democracy. *Annual Review of Political Science*, 20(1), 451–468.
- Scott, P. (2007). The triumph of the South: A regional economic history of early twentieth century Britain. Ashgate.
- Sensier, M., & Devine, F. (2020). Understanding regional economic performance and resilience in the UK: Trends since the global financial crisis. *National Institute Economic Review*, 253, R18–R28.
- Shankar, R., & Shah, A. (2003). Bridging the economic divide within countries: A scorecard on the performance of regional policies in reducing regional income disparities. *World Development*, 31(8), 1421–1441.
- Shariff, A. F., Wiwad, D., & Aknin, L. B. (2016). Income mobility breeds tolerance for income inequality: Cross-national and experimental evidence. *Perspectievs on Psychological Science*, 11(3), 373–380.
- Smith, H. J., Pettigrew, T. F., Pippin, G. M., & Bialosiewicz, S. (2012). Relative Deprivation: A Theoretical and Meta-Analytic Review. *Personality and Social Psychology Review*, 16(3), 203–232.
- Solt, F. (2008). Economic Inequality and Democratic Political Engagement. *American Journal of Political Science*, *52*(1), 48–60.
- Soroka, S. N. (2003). Media, Public Opinion, and Foreign Policy. *Harvard International Journal of Press/Politics*, 8(1), 27–48.
- Soroka, S. N., Stecula, D. A., & Wlezien, C. (2015). It's (Change in) the (Future) Economy, Stupid: Economic Indicators, the Media, and Public Opinion. *American Journal of Political Science*, 59(2), 457–474.
- Spicer, J. S. (2018). Electoral systems, regional resentment and the surprising success of Anglo-American populism. *Cambridge Journal of Regions, Economy and Society*, 11, 115–141.
- Spruyt, B., Keppens, G., & Van Droogenbroeck, F. (2016). Who Supports Populism and What Attracts People to It? *Political Research Quarterly*, 69(2), 335–346.
- Starmans, C., Sheskin, M., & Bloom, P. (2017). Why people prefer unequal societies. *Nature Human Behaviour*, *1*(4), 1–7.
- Steenbergen, M. R., & Jones, B. S. (2002). Modeling multilevel data structures. *American Journal of Political Science*, 46(1), 218–237.

- Stegmueller, D. (2013). How many countries for multilevel modeling? A comparison of Frequentist and Bayesian approaches. *American Journal of Political Science*, *57*(3), 748–761.
- Stevens, D., & Karp, J. A. (2012). Leadership Traits and Media Influence in Britain. *Political Studies*, 60(4), 787–808.
- Stewart, F. (2000). Crisis prevention: Tackling horizontal inequalities. *Oxford Development Studies*, 28(2), 245–262.
- Stewart, F. (2005). Horizontal Inequalities: A Neglected Dimension of Development |. In *Wider perspectives on global development* (pp. 101–135). Palgrave Macmillan.
- Stoker, G. (2006). Why politics matter. Palgrave Macmillan.
- Stoker, L. (1993). Judging presidential character: The demise of Gary Hart. *Political Behavior*, 15(2), 193–223.
- Stouffer, S. A., Suchman, E. A., DeVinney, L. C., Starr, S. A., & Williams, R. M. (1949). *The American soldier: Adjustment to army life* (Vol. 1). Princeton University Press.
- Su, Y., & Borah, P. (2019). Who is the agenda setter? Examining the intermedia agenda-setting effect between Twitter and newspapers. *Journal of Information Technology & Politics*, 16(3), 236–249.
- Tajfel, H. (1982). Social Psychology of Intergroup Relations. *Annual Review of Psychology*, 33(1), 1–39.
- Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup behavior. In S. Worchel & W. G. Austin (Eds.), *Psychology of inter-group relations* (2nd ed., pp. 7–24). Nelson-Hall.
- The UK's insufficient embrace of devolution. (2022, March 16). *Financial Times*. https://www.ft.com/content/c8120dc6-a652-4e96-a9e5-0874adfbe713
- Thrift, N. J. (1983). On the Determination of Social Action in Space and Time. *Environment and Planning D: Society and Space*, *1*(1), 23–57.
- Trump, K.-S. (2018). Income inequality influences perceptions of legitimate income differences. *British Journal of Political Science*, 48(4), 929–952.
- Trump, K.-S. (2020). When and why is economic inequality seen as fair. *Current Opinion in Behavioral Sciences*, *34*, 46–51.
- Tversky, A., & Kahneman, D. (1973). Availability—Heuristic for judging frequening and probability. *Cognitive Psychology*, 5(2), 207–232.

- Tyler, T. R. (2006). Psychological perspectives on legitimacy and legitimation. *Annual Reviews of Psychology*, *57*(1), 375–400.
- Tyler, T. R., & Lind, E. A. (1992). A relational model of authority in groups. *Advances in Experimental Social Psychology*, 25, 115–191.
- Tyler, T. R., Rasinski, K. A., & McGraw, K. M. (1985). The influence of perceived injustice on the endorsement of political leaders. *Journal of Applied Social Psychology*, 15(8), 700–725.
- Tyler, T. R., & Van der Toorn, J. (2013). Social justice. In L. Huddy, D. O. Sears, & J. S. Levy (Eds.), *The Oxford Handbook of Political Psychology* (2nd ed.). Oxford University Press.
- Urbanska, K., & Guimond, S. (2018). Swaying to the extreme: Group relative deprivation predicts voting for an extreme right party in the French presidential election. *International Review of Social Psychology*, 31(1), 1–12.
- Van der Meer, T. (2018). Economic performance and political trust. In E. M. Uslaner (Ed.), *The Oxford Handbook of Social and Political Trust*. Oxford University Press.
- Van Erkel, P., & Van der Meer, T. (2016). Macroeconomic performance, political trust and the Great Recession: A multilevel analysis of the effects of within-country fluctuations in macroeconomic performance on political trust in 15 EU countries, 1999–2011. *European Journal of Political Research*, 55(1), 177–197.
- Van Hauwaert, S. M., & Van Kessel, S. (2018). Beyond protest and discontent: A cross-national analysis of the effect of populist attitudes and issue positions on populist party support. *European Journal of Political Research*, *57*(1), 68–92.
- van Leeuwen, E. S., & Vega, S. H. (2021). Voting and the rise of populism: Spatial perspectives and applications across Europe. *Regional Science Policy & Practice*, *13*(2), 209–219.
- Walasek, L., & Brown, G. D. A. (2015). Income Inequality and Status Seeking: Searching for Positional Goods in Unequal U.S. States. *Psychological Science*, 26(4), 527–533.
- Wheeler, L., & Miyake, K. (1992). Social comparison in everyday life. *Journal of Personality and Social Psychology*, 62(5), 760–773.
- Wilkinson, R., & Pickett, K. (2011). The spirit level: Why greater inequality makes societies stronger. Bloomsbury Press.
- Williamson, J. G. (1965). Regional Inequality and the Process of National Development: A Description of the Patterns. *Economic Development and Cultural Change*, *13*(4, Part 2), 1–84.
- Wills, T. A. (1981). Downward comparison principles in social psychology. *Psychological Bulletin*, 90(2), 245–271.

- Wolf, M. (2020, February 13). Boris Johnson's promise to 'level up' will be hard to keep. *Financial Times*. https://www.ft.com/content/011b0c62-4cf1-11ea-95a0-43d18ec715f5
- Wong, C., Bowers, J., Rubenson, D., Fredrickson, M., & Rundlett, A. (2020). Maps in People's Heads: Assessing a New Measure of Context. *Political Science Research and Methods*, 8(1), 160–168.
- Wong, C., Bowers, J., Williams, T., & Simmons, K. D. (2012). Bringing the Person Back In: Boundaries, Perceptions, and the Measurement of Racial Context. *The Journal of Politics*, 74(4), 1153–1170.
- Wood, J. V. (1989). Theory and research concerning social comparisons of personal attributes. *Psychological Bulletin*, *106*(2), 231–248. https://doi.org/10.1037/0033-2909.106.2.231
- World Bank. (2009). World Development Report 2009: Reshaping Economic Geography. World Bank.
- Wu, W., & Chang, Y. (2019). Income inequality, distributive unfairness, and support for democracy: Evidence from East Asia and Latin America. *Democratization*, 26(8), 1475–1492.
- Zaller, J. (1992). The nature and origin of mass opinion. Cambridge University Press.

# **Appendix A: Supplemental Materials for Chapter 2**

#### A.1: Calculating the coefficient of variation

The coefficient of variation for each year was calculated with the following equation:

$$cv = \frac{\sqrt{\sum_{i} (y_{i} - \overline{y})^{2} \frac{f_{i}}{n}}}{\overline{y}}$$

where cv = coefficient of variation,

 $f_i$  = population of the  $i^{th}$  region,

n = national population,

 $y_i$ = average household disposable income of the  $i^{th}$  region,

 $\overline{y}$  = average national household disposable income

#### **Household Income Data Source:**

Office for National Statistics (2020). *Regional gross disposable household income, UK: 1997 to* 2018. Retrieved from:

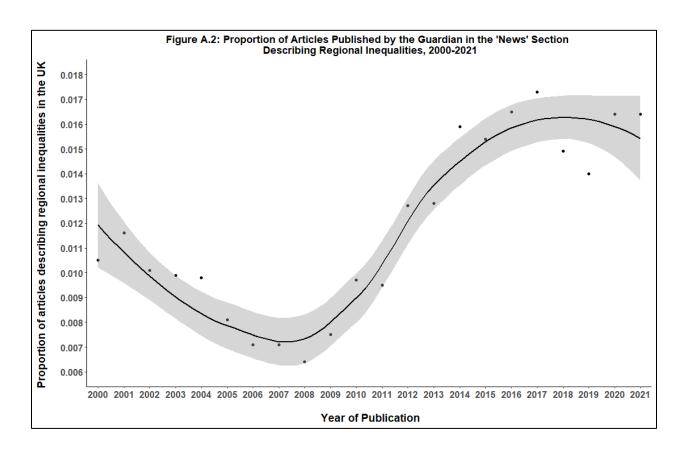
 $\frac{https://www.ons.gov.uk/economy/regionalaccounts/grossdisposablehouseholdincome/datasets/regionalgrossdisposablehouseholdincomegdhi}{}$ 

#### **Population Data Source:**

Organization for Economic Cooperation and Development (2021). Regional Demography.

Retrieved from: <a href="https://www.oecd-ilibrary.org/urban-rural-and-regional-development/data/oecd-regional-statistics\_region-data-en">https://www.oecd-ilibrary.org/urban-rural-and-regional-development/data/oecd-regional-statistics\_region-data-en</a>

# A.2: Coverage of regional inequality in *The Guardian* from 2000-2021 (without the opinion section)



## A.3: Regional inequality search query for dictionary approach

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# **Appendix B: Supplemental Materials for Chapter 3**

Appendix B.1: Data sources for regional and country-level variable

Tab	Table B.1: Data sources for regional and country-level variables				
Variable	Source	Year	Description	Accessed at:	
Regional-level:			-		
Average regional household disposable income	OECD	2016	USD per equivalized household; 2016 prices, 2016 PPP	https://www.oecd.org/regional/regional-statistics/	
Regional unemployment rate	OECD	2018	% Unemployed of labor force (15+)	https://www.oecd.org/regional/regional-statistics/	
<b>Country-level:</b>					
Regional inequality (coefficient of variation): -average regional & country household disposable income -regional & country population	OECD	2016	USD per equivalized household; 2016 prices, 2016 PPP	https://www.oecd.org/regional/regional-statistics/	
GDP per Capita	OECD	2018	USD (2018 prices, 2018 PPP)	https://data.oecd.org/gdp/gross-domestic- product-gdp.htm	
Country Gini Coefficient	OECD	2018	Gini coefficient for household disposable income (i.e., post-transfer)	https://data.oecd.org/inequality/income-inequality.htm	

Appendix B.2: List of sub-national regions sampled

Table B.2: List of sub-national regions			
OECD TL2 Region Code	Region Name	Country	Number of Respondents
AT11	Burgenland	Austria	62
AT12	Niederösterreich	Austria	336
AT13	Wien	Austria	423
AT21	Kärnten	Austria	110
AT22	Steiermark	Austria	216
AT31	Oberösterreich	Austria	268
AT32	Salzburg	Austria	121
AT33	Tirol	Austria	122
AT34	Vorarlberg	Austria	43
BE1	Bruxelles	Belgium	115
BE2	Vlaams Gewest	Belgium	793
BE3	Région wallonne	Belgium	445
CH01	Région lémanique	Switzerland	179
CH02	Espace Mittelland	Switzerland	233
CH03	Nordwestschweiz	Switzerland	133
CH04	Zürich	Switzerland	162
CH05	Ostchweiz	Switzerland	155
CH06	Zentralschqeiz	Switzerland	101
CH07	Ticino	Switzerland	37
DE1	Baden-Württemberg	Germany	216
DE2	Bayern	Germany	315
DE3	Berlin	Germany	70
DE4	Brandenburg	Germany	49
DE6	Hamburg	Germany	44
DE7	Hessen	Germany	102
DE8	Mecklenburg- Vorpommern	Germany	43
DE9	Niedersachsen	Germany	204
DEA	Nordrhein-Westfalen	Germany	364
DEB	Rheinland-Pfalz	Germany	86
DED	Sachsen	Germany	107
DEE	Sachsen-Anhalt	Germany	58
DEF	Schleswig-Holstein	Germany	70
DEG	Thüringen	Germany	41
DK01	Hovedstaden	Denmark	127
DK02	Sjælland	Denmark	255
DK03	Syddanmark	Denmark	237

DK04	Midtjylland	Denmark	323
DK05	Nordjylland	Denmark	143
ES11	Galicia	Spain	78
ES21	País Vasco	Spain	49
ES30	Comunidad de Madrid	Spain	121
ES41	Castilla y León	Spain	47
ES42	Castilla-La Mancha	Spain	60
ES43	Extremadura	Spain	35
ES51	Cataluña	Spain	124
ES52	Comunidad Valenciana	Spain	104
ES61	Andalucía	Spain	185
ES70	Canarias	Spain	35
FR1	Île-de-France	France	227
FRB	Centre - Val de Loire	France	60
FRC	Bourgogne-Franche-	France	71
	Comté		
FRD	Normandy	France	73
FRE	Hauts-de-France	France	144
FRF	Grand Est	France	133
FRG	Pays de la Loire	France	94
FRH	Brittany	France	90
FRI	Nouvelle-Aquitaine	France	133
FRJ	Occitanie	France	120
FRK	Auvergne-Rhône-Alpes	France	202
FRL	Provence-Alpes-Côte	France	114
	d'Azur		
IE04	Northern and Western	Ireland	257
IE05	Southern	Ireland	437
IE06	Eastern and Midland	Ireland	576
NL11	Groningen	Netherlands	55
NL12	Friesland	Netherlands	38
NL13	Drenthe	Netherlands	51
NL21	Overijssel	Netherlands	93
NL22	Gelderland	Netherlands	172
NL31	Utrecht	Netherlands	101
NL32	Noord-Holland	Netherlands	167
NL33	Zuid-Holland	Netherlands	262
NL41	Noord-Brabant	Netherlands	183
NL42	Limburg (NL)	Netherlands	74
NO01	Oslo and Akershus	Norway	308
NO02	Hedmark and Oppland	Norway	67
NO03	South-Eastern Norway	Norway	220
NO04	Agder and Rogaland	Norway	173

NO05	Western Norway	Norway	223
NO06	Trøndelag	Norway	95
NO07	Northern Norway	Norway	106
PT11	Norte	Portugal	221
PT15	Algarve	Portugal	32
PT16	Centro	Portugal	157
PT17	Área Metropolitana de	Portugal	188
	Lisboa		
PT18	Alentejo	Portugal	65
SE11	Stockholm	Sweden	286
SE12	Östra Mellansverige	Sweden	184
SE21	Småland med öarna	Sweden	118
SE22	Sydsverige	Sweden	181
SE23	Västsverige	Sweden	271
SE31	Norra Mellansverige	Sweden	114
SE32	Mellersta Norrland	Sweden	59
SE33	Övre Norrland	Sweden	105
UKC	North East	United	88
CHC	Troitii East	Kingdom	00
UKD	North West	United	174
0112	1,0101,000	Kingdom	1, .
UKE	Yorkshire and The	United	154
	Humber	Kingdom	
UKF	East Midlands	United	116
		Kingdom	
UKG	West Midlands	United	107
		Kingdom	
UKH	East of England	United	175
		Kingdom	
UKI	London	United	145
		Kingdom	
UKJ	South East	United	233
		Kingdom	
UKK	South West	United	159
		Kingdom	
UKL	Wales	United	66
		Kingdom	
UKM	Scotland	United	133
		Kingdom	
UKN	Northern Ireland	United	50
		Kingdom	

Appendix B.3: Descriptive statistics of all variables

Table B.3 Descriptive statistics of all variables					
Variables	N	Mean	Std. Dev.	Min.	Max.
Individual-level:					
Satisfaction with democracy	16,446	5.99	2.40	0	10
Sex (female = 1)	16,446	.49	.50	0	1
Age	16,446	50.82	17.98	15	90
Years of full-time education	16,446	13.78	4.41	0	60
Residence:					
Farm or home in	16,446	.07	.26	0	1
countryside					
Country village	16,446	.29	.45	0	1
Town or small city	16,446	.32	.47	0	1
(reference cat.)					
Suburbs or outskirts of big	16,446	.15	.36	0	1
city					
A big city	16,446	.16	.37	0	1
Household disposable	16,446	5.56	2.78	1	10
income (decile)					
Political interest	16,446	2.70	.88	1	4
Political ideology	16,446	4.85	2.13	0	10
Vote in previous election:					
Voted for party in	16,446	.37	.48	0	1
government (reference cat.)					
Voted for opposition party	16,446	.41	.49	0	1
Did not vote in previous	16,446	.22	.42	0	1
election					
Regional-level:					
Average Regional	105	009	.981	-1.999	2.70
household disposable					
income (standardized)					
Regional unemployment	105	44	2.30	-5.8	7.9
rate (mean-centered)					
<u>Country-level</u>					
Regional inequality	13	.093	.043	.045	.184
GDP per Capita (USD)	13	\$56,042	\$13,285	\$34,890	\$84,577
Gini coefficient	13	.30	.03	.26	.37

# Appendix B.4: Interacting household disposable income and regional inequality

Table B.4: Interacting household disposable income and relative regional economic prosperity

	Model 1	SE
Relative regional economic prosperity	0.140**	(0.0556)
Household income	0.0633***	(0.00679)
Household income X Relative regional economic prosperity	-0.00385	(0.00605)
Female	-0.0596*	(0.0341)
Age at time of Survey	0.0000975	(0.00104)
Years of full-time education completed	$0.0188^{***}$	(0.00432)
Interest in politics	$0.201^{***}$	(0.0210)
Political ideology	0.0443***	(0.00829)
<b>Residence</b> (ref = Town or small city):		
Farm or home in countryside	-0.181**	(0.0720)
Country village	-0.153***	(0.0445)
Suburbs or outskirts of big city	0.0247	(0.0546)
A big city	$0.205^{***}$	(0.0557)
<b>Previous election (ref = Voted for party in government):</b>		
Voted for party in opposition	-0.603***	(0.0405)
Did not vote in last national election	-0.265***	(0.0504)
Regional unemployment (%)	$0.0395^{*}$	(0.0230)
GDP per capita (USD)	$0.0000348^{**}$	(0.0000166)
Gini coefficient	-11.88 <sup>*</sup>	(7.153)
Constant	6.548**	(2.621)
Variance Components:		
Country-level	$0.471^{*}$	(0.195)
Regional-level	$0.108^{***}$	(0.0234)
Individual-level	4.584***	(0.0507)
N individual-level	16,446	
N regional-level	105	
N country-level	13	

Standard errors in parentheses p < 0.10, p < 0.05, p < 0.01

# **Appendix C: Supplemental Materials for Chapter 4**

Appendix C.1: Demographic descriptive statistics

Table C.1.1: Descriptive statistics of numerical variables

Variable	Obs.	Mean	Std. Dev.	Min	Max
Age	1,039	34.24	12.30	18	74
Ideology	1,043	3.84	2.15	0	12

**Table C.1.2: Descriptive statistics of categorical variables** 

Variable	Frequency	Percent of Sample
Region:		
North West	128	12.13%
North East	52	4.93%
Yorkshire and the	104	9.86%
Humber		
West Midlands	103	9.76%
East Midlands	104	9.86%
South West	115	10.90%
South East	205	19.43%
London	160	15.17%
East of England	84	7.96%
Income:		
Under £5,000 per year	29	3.04%
£5,000 to £9,999 per	34	3.57%
year		
£10,000 to £14,999	62	6.51%
per year		
£15,000 to £19,999	73	7.66%
per year		
£20,000 to £24,999	71	7.45%
per year		
£25,000 to £29,999	75	7.87%
per year		
£30,000 to £34,999	85	8.92%
per year		
£35,000 to £39,999	64	6.72%
per year		
£40,000 to £44,999	78	8.18%
per year		

£45,000 to £49,999	62	6.51%
per year		
£50,000 to £59,999	88	9.23%
per year		
£60,000 to £69,999	76	7.97%
per year		
£70,000 to £99,999	95	9.97%
per year		
£100,000 to £149,999	45	4.72%
per year		
£150,000 and over per	16	1.68%
year		
<b>Education:</b>		
No qualifications	7	<1%
Below GCSE or	8	<1%
equivalent		
GCSE or equivalent	107	10.24%
A-level or equivalent	316	30.24%
Undergraduate or	400	38.28%
equivalent		
Postgrad or equivalent	207	19.81%
Gender:		
Male	340	32.44
Female	697	66.51%
Non-binary/third	11	1.05%
gender		
Party ID:		
Conservative	219	20.78%
Labour	498	47.25%
Liberal Democrat	133	12.62%
Green Party	122	11.57%
UKIP	13	1.23%
Brexit Party/Reform	17	1.61%
UK		
Other (Write in)	52	4.93%

## Appendix C.2: Experimental treatments

Figure C.2.1: Downward Comparison Experimental treatment

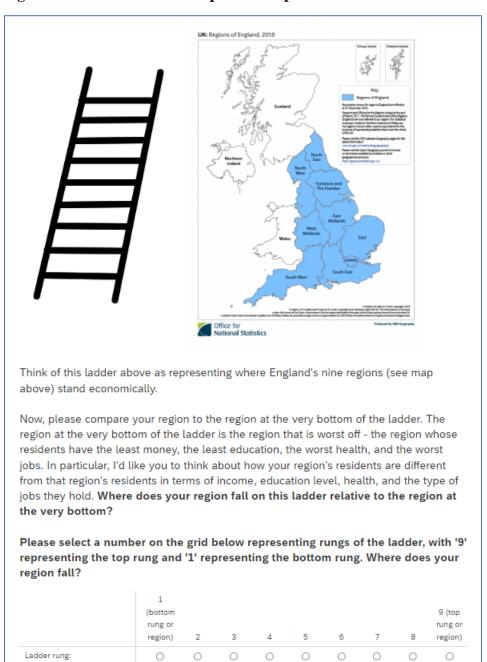


Figure C.2.2: Upward Comparison Experimental Treatment



### Appendix C.3: Experimental results for split sample

Table C.3.1: Experimental results for satisfaction with democracy with split sample (Kruskal-Wallis test)

Subset	N	P-value
Residents of 3 poorest regions	259	.63
Residents of 3 middle regions	347	.455
Residents of 3 richest regions	449	.83

Table C.3.2.: Experimental results for external efficacy with split sample (Kruskal-Wallis test)

Subset	N	P-value
Residents of 3 poorest regions	259	P-value < .01
Residents of 3 middle regions	347	.28
Residents of 3 richest regions	449	.63

The results of a series of Wilcoxon rank sum tests reveal that in the subset containing residents of the three poorest region those in the upward comparison group were <u>more</u> externally efficacious than those in the downward comparison group or the control group (p-values = .0008/.0422). Similar to the results of the full sample, this finding is against theoretical expectations.

Table C.3.3: Experimental results for anger over regional economic differences with split sample (Kruskal-Wallis test)

Subset	N	P-value
Residents of 3 poorest regions	259	.29
Residents of 3 middle regions	347	.47
Residents of 3 richest regions	449	.52

Figure C.3.4: Experimental results for resentment over regional economic differences with split sample (Kruskal-Wallis test)

Subset	N	P-value
Residents of 3 poorest regions	259	.43
Residents of 3 middle regions	347	.25
Residents of 3 richest regions	449	.87