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## **GOLFING WITH TRUMP: Social capital, decline, inequality, and the rise of populism in the US**

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Human Geography and Planning

# GOLFING WITH TRUMP

## Social capital, decline, inequality, and the rise of populism in the US

by

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### **Abstract**

In 2000 Robert Putnam forecast that United States (US) democracy was at risk from the twin challenges of declining civic engagement and rising interpersonal inequality. Sixteen years later, his predictions were vindicated by the election of Donald Trump as president of the US. This paper analyses the extent to which the election of Donald Trump was related to levels of social capital and interpersonal inequalities and posits a third alternative: that the rise in vote for Trump in 2016 was the result of long-term economic and population decline in areas with strong social capital. This hypothesis is confirmed by the econometric analysis conducted for counties across the US. Long-term declines in employment and population – rather than in earnings, salaries, or wages – in places with relatively strong social capital propelled Donald Trump to the presidency. By contrast, low social capital and high interpersonal inequality were not connected to a surge in support for Trump. These results are robust to the introduction of control variables and different inequality measures. The analysis also shows that the discontent at the base of the Trump margin is not just a consequence of the 2008 crisis but had been brewing for a long time. Places in the US that remained cohesive but witnessed an enduring decline are no longer bowling alone, they are golfing with Trump.

**Keywords:** Populism, social capital, inequality, economic and demographic decline, Donald Trump, counties, US.

**JEL codes:** D31, D72, O15, R11

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## Introduction

Just over 20 years ago, Robert Putnam (2000) wrote *Bowling Alone*. In this seminal book Putnam used the fact that Americans were increasingly bowling alone as a metaphor for the decline in civic engagement and political participation – and in all forms of social capital – that had become a dominating trend in the United States (US) since the 1960s. Americans were bowling alone because bowling clubs and leagues were disappearing. But the decline in social capital across the US did not stop at bowling. There was a wane in all other sorts of civic engagement and social trust, from political participation, voter turnout, newspaper readership, personal letter writing, or union membership, to church attendance, club meetings, social visiting, card playing, charitable giving, or volunteering. For Putnam this decline in community engagement was destroying the very fabric of American communities and represented a fundamental threat for democracy, as “the performance of [...] democratic institutions depends in measurable ways upon social capital” (Putnam, 2000: 394).

The progressive erosion of American social capital took place in parallel with another factor regularly considered one of the main drivers of populism in the developed world: the rise in interpersonal inequality. The US – which experienced a significant drop in interpersonal inequality during World War II that continued well into the post-war period – started becoming more and more unequal. From the late 1960s and, especially, since the 1970s, the country has become much more polarised, with the gap between the rich and the rest of society growing rapidly (Katz and Murphy, 1992; Piketty and Saez, 2003). According to Putnam (2000: 359), “the timing of the two trends [is] striking: Sometime around 1965–70 America reversed course and started becoming both less just economically and less well connected socially and politically.” The combination of declining social capital with the rising interpersonal inequality represented for Putnam the biggest threat to American democracy.

Less than two decades later, Putnam’s prophecy was, in part, fulfilled. The election of Donald Trump – considered by many a “polarising and politically inexperienced figure [...] who uses populist rhetoric to legitimise his style of governance, while promoting authoritarian values that flattened the liberal norms underpinning American democracy” (Norris and Inglehart, 2019: 3) – has put US democratic institutions under severe strain, stretching democracy in America to the extreme.

However and although Donald Trump’s election and presidency have indeed affected US democratic health, it is far less certain that the motives for the populist sway in the American electorate had to do with a combination of high interpersonal inequality and lower social capital. It has already been noted that the poorest of the poor and the richest of the rich in US society often voted together for Hillary Clinton in the 2016 presidential election (Inglehart and Norris, 2017; Rodríguez-Pose, 2018; Smith and Hanley, 2018). Support for Hillary Clinton was

particularly strong in some of the most unequal large cities of the US, where social capital is far less prevalent than in midtown and rural America. As indicated by Rodríguez-Pose (2020: 6) “the very wealthy suburbs of West Philadelphia voted for Hillary Clinton alongside the deprived Philadelphia Badlands to the north of the City.” By contrast, Donald Trump amassed large numbers of votes among white working-class voters in long-term declining medium-size cities, suburbs, towns, and rural areas (Cramer, 2016; Rodden, 2019), which had once been not only the industrial and economic motors of the US, but also the poster children of America’s communities and social capital.

Hence, other factors rather than inequality and low social capital may have driven the surge in Trump vote and, therefore, the rise of populism in the US. Prominent among these factors, as this paper will posit, is the decline in small cities, towns, and many rural areas across the US and the related rise in interterritorial, rather than interpersonal, inequality.

We will analyse for the first time the link between social capital, interpersonal inequality, and long-term economic and demographic decline in America’s communities, on the one hand, and the rise in populist vote, on the other. The aim is to show that the surge in populism in the US – epitomised by the election of Donald Trump in 2016 – may not have come from, as suggested by Putnam (2020), low social capital or high interpersonal inequality (at least, at the local level), or their combination. We argue that a fundamental driver in the swing of votes towards Donald Trump in the 2016 election is a factor that has remained relatively unnoticed not just in Putnam’s *Bowling alone*, but also in the overwhelming majority of the literature on the rise of populism in the US:<sup>1</sup> the long-term economic and demographic decline of American towns and rural areas and the related rise in interterritorial inequality.

The role of these three factors in the election of Donald Trump as President of the United States are assessed, by considering the increase in votes for the Republican Party between the 2012 and 2016 presidential elections – what we call the *Trump margin* – at county level.

We hypothesise that low social capital alone is unlikely to have triggered the swing to Donald Trump in the 2016 presidential election and that interpersonal inequality at the local level is unrelated with increases in Trump’s vote share. We propose that it is precisely the long-term economic and demographic decline of the places that still rely on a relatively strong social capital, the decline of many areas of the American Rustbelt and the Great Plains that helped forge the economic success of the US for the best of a century, that is behind the rise of populism in the US. Strong, but declining communities have reacted to being ignored, neglected, and suffering long-term decline.

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<sup>1</sup> This is, however, not the case in the European literature on the geographical roots of populism (e.g. Rodríguez-Pose, 2018; Dijkstra et al., 2020; McCann, 2020).

The results of the analysis show that increases in populist vote in the US are fundamentally driven by the economic and demographic decline of strongly cohesive mid-town and rural America. These places still have greater levels of social capital than more dynamic and unequal areas of the US. This social capital has played a role in the swing of votes within communities driven by a growing feeling of frustration, increasingly known as the rising geography of discontent (McCann, 2020) or the politics of resentment (Cramer, 2016). In small cities and rural areas of the US, scattered fundamentally across the Rustbelt and the Great Plains, the rise in populist vote represents a reaction of strong communities in which individual losses are strongly identified with collective losses. These so-called 'places that don't matter' (Rodríguez-Pose, 2018) have had enough of seeing their people leave and their jobs go and have used the ballot box to exact revenge on a system they consider offers little to them. By contrast, the more dynamic, mainly urban areas of the US, where society is often less cohesive, where there is less social capital, and where interpersonal inequalities are significantly higher, have, for the moment, shunned the calls of populism.

The paper is structured as follows. The next section will study the rise of populism in the US. This will be followed by a section looking at explanations for the growth of populism, focusing, in particular, on social capital, interpersonal inequality, and long-term economic and demographic decline. The methods and data used in the analysis are presented in the ensuing section, which is followed by the econometric analysis. The main conclusions of the study are put forward in the final section.

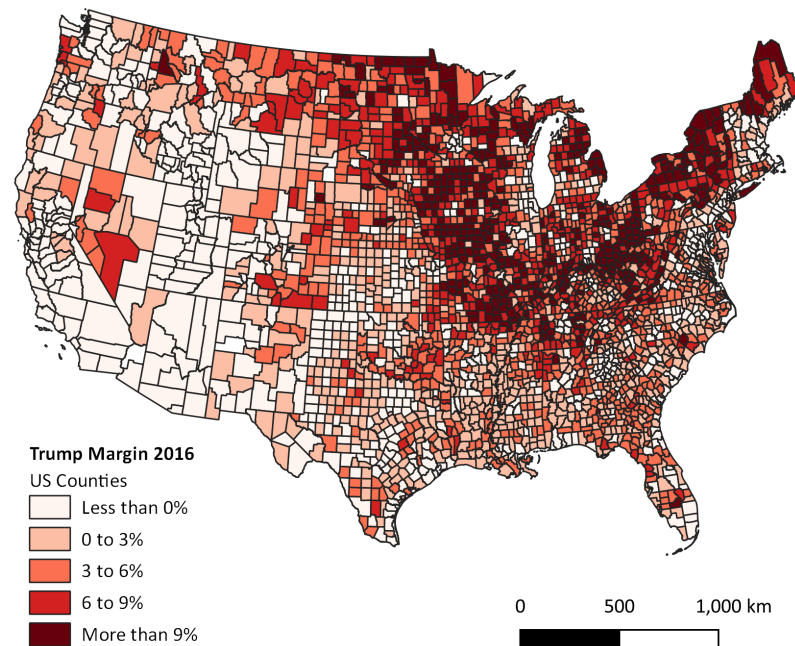
## **The rise of populism in the US**

On 8 November 2016, Donald Trump was elected president of the US. Trump, a businessman with limited previous political experience, managed against the odds first to secure the Republican Party nomination and then the presidency on a political platform with strong nationalist and authoritarian populist tendencies (Norris and Inglehart, 2019), promising to "make America great again."

Trump's election was achieved on the wings of winning the electoral votes of crucial swing states, such as Pennsylvania, Ohio, Michigan, and Wisconsin. In these states – like very much everywhere else in the US – the votes for the Democratic candidate, Hillary Clinton, were geographically concentrated in the larger cities. Clinton triumphed in cities like Philadelphia, Pittsburgh, Columbus, Cincinnati, Cleveland, Detroit, Milwaukee, or Madison and took some university towns in states like Ohio and Pennsylvania. The suburbs, towns, and rural areas, by contrast, provided fundamental support for Donald Trump (Rodden, 2019).

Figure 1 shows what we call the Trump margin, that is the swing in the share of votes towards the Republican Party between the 2012 presidential election – when Mitt Romney was the Republican presidential candidate – and the 2016 election. The Trump margin is in evidence in most of the mid-Atlantic, Midwest, and Great Plains states. The greatest swing took place in an arch surrounding the Great Lakes, drawing a semicircle expanding from northern Maine in the East to north-eastern Minnesota in the West (Figure 1).

**Figure 1.** The ‘Trump margin’ in the 2016 presidential election.



In contrast, Donald Trump attracted less votes than Mitt Romney in Utah (a state with strong connections to Romney), in Arizona and areas of Idaho, New Mexico, and Wyoming, as well as in urban agglomerations in western states and in the eastern urban megalopolis, stretching between Washington, DC and Boston.

### **Possible explanations for the rise of populism**

Why did Donald Trump get elected in 2016? What are the reasons behind the rise of authoritarian populism in the US?

The rise of authoritarian populism in the US has coincided with that in other western democracies. Especially in the second half of the 2010s, it has attracted considerable attention

from researchers who have tried to investigate the causes of populism from different perspectives. The main divide in the studies of populism has been between those focusing on cultural versus those emphasising economic explanations.

Those examining culture and values have centred their explanations around the role of values (Norris and Inglehart, 2019). Citizens that have embraced populism are those that feel ill at ease with what they increasingly regard a different society from the one they grew up in or with the image of society transmitted to them by their parents and family. These citizens generally regard globalisation, migration, and multiculturalism as key factors behind the rise of economic but also cultural and identity insecurities (Salmela and von Scheve, 2017; Norris and Inglehart, 2019). The change in cultural values threatens their identity and undermines family and religious traditions, transforming the environment they live in into one they no longer feel comfortable with (Norris and Inglehart, 2019). Gradually, this insecurity has become anger and resentment towards a system that, in their view, no longer values them (Salmela and von Scheve, 2017).

Economic explanations revolve around the economic insecurity brewed by deregulation and globalisation (Guiso et al., 2017). Factors such as the openness to trade and the exposure to Chinese goods (Autor et al., 2016; Colantone and Stanig, 2018) are high in this strand of research. Recent economic transformations are exploited by populist, invoking protectionism while stoking economic nationalism, like in Donald Trump's "Make America great again" campaign slogan. Post-financial crisis austerity has also been considered a driver of discontent (Gray and Barford, 2018).

Cultural and economic transformations are causing rising discontent and resentment with a system that is increasingly reflected in the electoral ballot. Voters supporting populist options are both swayed by their individual characteristics – such as age, race, education, exposure to new technologies, health, work status, or welfare dependency – as well as by the conditions of the places where they live (Alabrese et al., 2019).

At the intersection between culture and economics, two factors were signalled by Putnam as the main risks for American democracy. Social capital, on the one hand, as "the performance of [...] democratic institutions depends in measurable ways upon social capital" (Putnam, 2000: 349), and interpersonal inequality and the increasing polarisation of American society, on the other.

Putnam argued both trends went hand in hand and reinforced one another (Putnam, 2000: 359): "the last third of the twentieth century was a time of growing inequality and eroding social capital. By the end of the twentieth century, the gap between rich and poor in the United

States had been increasing for nearly three decades, the longest sustained increase in inequality in at least a century, coupled with the first sustained decline in social capital.”

In the next subsections, we look at the potential role of both factors in the rise of populism, plus that of long-term economic and demographic decline as a possible alternative.

### ***Social capital as a driver of populism***

Social capital has become one of the dominant concepts in the social sciences. The concept draws on a longstanding body of research in the social sciences, which suggests that social networks matter for all sorts of social and economic outcomes. Coleman (1988) defined social capital as a resource considering (a) obligations and expectations, (b) information channels, and (c) social norms. These three aspects of social relationships reduce the coordination costs of shared action and improve outcomes, moving away from a static view of social relations and economic activity as being about individualised actors, and towards a view that economic activities are relational rather than simply transactional (Rodríguez-Pose and Storper, 2006). Putnam took on this concept and defined it as “the features of social life – networks, norms, and trust – that enable participants to act together more effectively to pursue shared objectives” (Putnam, 1995: 664).

Most views of social capital consider it a force for good. In his work on the strength of weak ties, Granovetter (1977) showed the importance of social relations in enhancing economic outcomes. Similarly, Putnam (1993) explained the economic divergence between the North and the South of Italy on differences in civic tradition between the North and the South. In *Bowling Alone*, he indicated that social capital “strengthens our better, more expansive selves” (Putnam, 2000: 394) and, among other benefits, reinforces government legitimacy (ibid.: 347), predicts tax compliance (ibid.: 347), and helps citizens resist the temptation to cheat (ibid.: 394).

Hence, the long-term decline of social capital in the US posed a serious threat to American society and its democracy, as it pushes citizens to free-ride “by neglecting the myriad civic duties that allow [...] democracy to work” (Putnam, 2000: 349).

However, and although most research on social capital views it as a positive thing, there are also longstanding concerns that it can have negative consequences. Olson (1965) viewed associational behaviour as lapsing into special interest groups. Coleman (1998) argued that social capital was defined (a) in relation to some aspect of social structure, (b) to allow or enable action within that structure. But he cautioned that there was no guarantee that (b) is a positive action, using the example of price-fixing as one activity facilitated by social capital. Overall, closed networks may enable the development of social capital, but they can also allow the development of group-think and incentives to engage in factional behaviour rather than in the general interest (Rodríguez-Pose and Storper, 2006) and prevent the progress of new ideas



and social change (Coleman, 1988). In short, a tight-knit community can entrench the “forces of tradition” and restrict social change (Farole et al., 2011: 68).

In terms of how social capital can affect voting behaviour, social capital is often seen as a pillar of a functioning democracy, something which goes back to Alexander de Tocqueville and his argument that civic association underpinned the US democratic model. Similarly, Putnam (1993) argues that the lack of adequate social capital in southern Italy undermined democracy and legitimate political representation. His arguments for the US are that a declining social capital not only depresses civic engagement and political participation but that it also destroys connectedness and trust. The increasingly empty public forums that became the norm in the last third of the 20<sup>th</sup> century represented a threat to American democracy (Putnam, 2000: 412).

In this respect, social capital can be considered as a form of protection against populism or demagoguery. Pre-dating the post-crisis resurgence of populism, Fieschi and Haywood (2004) indicated that a lack of trust in political institutions could fuel populism. Both Putnam (1993; 2000) and Fieschi and Haywood (2004) essentially viewed social capital as essential for a healthy democracy and having a purely negative impact on populism (i.e. where there is greater trust, political relationships are healthier and more mutually respectful, and so populists are less able to blame elites).

But this positive view of social capital has, more recently, also been challenged. Satyanath et al. (2017), for example, showed that German states with higher levels of social capital – proxied by associational behaviour – facilitated in the 1930s a rapid expansion of Nazi ideas and, in turn, Hitler’s accession to the Chancellery through higher shares of votes for the Nazi party. The presence of large and dense networks involving high levels of trust expedited a swift flow of information and a more rapid exposure to Nazi party propaganda.

### ***Interpersonal inequality and populism***

Putnam (2000) saw rising interpersonal inequality as the other main risk for American democracy. For him, the increase in interpersonal inequality and the decline of social capital were two sides of the same coin. On the one hand, the rise in inequality of the last third of the 20<sup>th</sup> century (Katz and Murphy, 1992) disrupted participation and torn civic engagement apart. On the other, the decline in social capital accelerated the disintegration of American communities and eased the implementation of policies and the passing of legislation that fermented greater inequality. This process also had a geographical component as “the American states with the highest levels of social capital are precisely the states most characterised by economic and civic equality” (Putnam, 2000: 359).

This view of interpersonal inequality as a threat to democracy and, therefore, a driver of populism has been shared by many economists who have delved into the roots of the recent

rise of authoritarian populism in developed countries. The rise in wealth polarisation in American society – as well as elsewhere in the developed world – is a fundamental factor for the increasing support of extreme anti-system options at the ballot box. Economic transformations in recent decades – and, above all, globalisation and automation – have driven “multiple, partially overlapping wedges in society” (Rodrik, 2018: 23). One of these fundamental wedges concerns income and wages. The economic system has been leaving increasing shares of the population behind, in conditions that are financially insecure (Guiso et al., 2017; Eichengreen, 2018). The concentration of wealth in a dwindling number of hands (Piketty and Saez, 2014; Milanovic, 2016) – the top 1% (Dorling, 2019) – and the parallel rise in the people at risk of poverty in developed countries (O’Connor, 2017; Rodrik, 2018) is increasingly considered tainted with a stigma of unfairness (Rodrik, 2018: 23). Citizens have come to believe that the growing wealth of the elites has been earned unfairly and, consequently, the tolerance towards inequality has decreased (Pastor and Veronesi, 2018). Hence, interpersonal inequality – which is often confounded with economic unfairness (Starmans et al., 2017) – is, from this perspective, becoming a driver of the rise of populism, as it pushes voters towards illiberal and anti-system parties at the ballot box. Inequality is perceived to drive voters against the status quo, resulting in an erosion of democratic institutions and leading to nativism and plutocracy (Milanovic, 2016).

For Putnam (2000: 359) “there is every reason to think that the twin master trends of our time—less equality, less engagement—reinforce one another.” Thus, fighting the decline of social capital is also a way to prevent the rise of inequality and vice versa. It is also the best way to combat the challenges besieging American democracy.

### ***The role of long-term economic decline***

Putnam’s work is about all sorts of decline. From that in civic engagement or in political participation to declines in bowling or card playing. All these declines are meticulously documented in *Bowling alone*. Yet, there is one type of decline that is conspicuously absent from Putnam’s (2000) analysis: that of small-town and rural America. Similarly, the growth of territorial inequalities and the rising geographical polarisation in the US does not feature prominently in Putnam’s work.

The demographic and economic decline of small-town and rural America has been documented for quite some time (e.g. Fuguitt et al., 1989; Johnson, 2006). Small towns and large swaths of rural areas have been losing population and jobs throughout the second half of the 20<sup>th</sup> century and the beginning of the 21<sup>st</sup> century. The decline of these areas has been matched by the evolution of many large cities, such as Detroit, Cleveland, Buffalo, Milwaukee, or Toledo, once among the most dynamic industrial hubs in the country (Hartt, 2018). Many of these cities articulated – and still articulate – large hinterlands in so-called ‘Rustbelt’ states.

Such decline has had important implications for social capital in the US. According to Putnam (2000: 207), “the decline in social connectedness over the last third of the twentieth century might be attributable to the continuing eclipse of small-town America”. This is because small-town and rural America have for long been the centres of civic engagement. In these areas people have been and remain community-oriented (Wuthnow, 2019: 4). During most of America’s history this feeling of community, widespread across the whole of the US, was considered as a force for good. “Residents of small towns and rural areas are more altruistic, honest, and trusting than other Americans”, noted Putnam (2000: 205). Communities with a better endowment of social capital have been perceived to be able to cope better with all sorts of economic and social challenges (Rupasingha et al., 2006).

However, when these communities suffer long-term population and economic decline, the very social capital behind the cohesiveness and former dynamism of these areas can also channel the growing anger and resentment felt by those being left behind. When the feeling of neglect becomes widespread (Rodríguez-Pose, 2018; Wuthnow, 2019), when there is growing resentment about the rising economic gulf between large cities and small communities (Cramer, 2016: 83), social capital at a local scale can become the mechanism to diffuse that anger and outrage at a system they feel no longer represents and serves them at the ballot box. Areas with a strong social capital develop a *consciousness* which helps shape their political views (Cramer, 2016) and this consciousness is inherently related to place. In this respect “place matters because it functions as a lens through which people interpret politics” (Cramer, 2016: 12). This consciousness is both rooted in place and class, but also “infused with a sense of distributive injustice” (Cramer, 2016: 12). And it may also be the mechanism that feeds the increasing call for attention of places that have seen far better times, have been devastated by economic processes such as globalisation or automation, and where people are becoming effectively stuck because of lack of capacity and/or opportunities for mobility (Rodríguez-Pose, 2018: 202). These processes have contributed to render their economies redundant and, often, to undermine the self-esteem and sense of purpose of many local dwellers. Such consciousness is contributing to spread out a *geography of discontent* (Dijkstra et al., 2020; McCann, 2020) and a *politics of resentment* (Cramer, 2016) to places that have had a rough ride linked to both economic and cultural transformations and have seen their friends and neighbours leave, their jobs dwindle, and their services gradually disappear (Collantes and Pinilla, 2019; Guilluy, 2019). Social capital can, in this respect, provide the vehicle for this anger to come out into the open at the ballot box (Rodríguez-Pose, 2018) or, increasingly, through rebellion and revolt (Guilluy, 2019).

### ***Bringing together social capital, inequality, and demographic and economic decline***

What can be expected from the combination of dwindling social capital, rising inequality, and the demographic and economic decline of many cities, small towns, and rural areas in the US? Depending on the perspective adopted, two potential outcomes can be expected.

On the one hand, as posited by Putnam (2000), the threats posed by populist tendencies to American democracy could be addressed by redressing the decline of social capital and the increase in inequality. Anger at the system would, therefore, be more prevalent in those places where there is a combination of high inequality and low social capital. That is, fundamentally, in large American cities. In these places “efforts to strengthen social capital should go hand in hand with efforts to increase equality” (Putnam, 2000: 359).

On the other, remnants of strong social capital that foster a pervasive consciousness within declining cities, but, especially, in small towns and rural areas across the US could have served as a means to guide the growing anger of long-term decline to the ballot box in numbers and ways that would be impossible in places with lower social capital stock.

The evidence of the 2016 presidential election points to the latter explanation. The demographically and economically more dynamic, mainly urban areas in the US, where society is less cohesive, but where interpersonal inequalities are significantly higher, shunned the calls of populism and voted in big numbers for Hillary Clinton. By contrast, many long-term declining communities with strong social capital embraced Donald Trump in far greater numbers than they had supported Mitt Romney – a far more mainstream Republican presidential candidate – four years earlier.

Hence, in this paper, we will argue that the rise of populism in the US – proxied by the swing to Donald Trump in the 2016 presidential election – is not related, as feared by Putnam (2000), to low levels of social capital, high interpersonal inequality, or their combination, but mainly to long-term economic and demographic decline. We will also argue that strong social capital, civic engagement, and cohesiveness may have contributed to the revenge at the ballot box of places left behind (Wuthnow, 2019), of places that are increasingly considered to no longer matter (Rodríguez-Pose, 2018), and that have felt neglected and snubbed for a considerable amount of time (Cramer, 2016; McCann, 2020). Their strong social identity and local consciousness – in other words, their social capital – may have contributed to this rise of populism in ways that would have been impossible in the most dynamic US cities and towns. Populism will thus be mainly driven by the long-term economic and demographic decline of the strong communities that built America, while the rise of interpersonal inequality – while something that could generate conflict in the future – is for the moment not associated with populism.

## Model and data

### *Model*

In order to demonstrate that:

a) Economic and demographic decline are fundamental factors in the rise of populism in the US and that this process has become exacerbated in the tightly-knit communities with strong social capital that have witnessed an erosion of their relevance;

b) This process is not limited to the aftermath of the crisis, but goes back a long way, with roots that can be traced to, at least, the 1970s; and

c) Populism is more fundamentally connected with long-term decline than with local interpersonal inequality, which tends to be far higher outside those tightly-knit communities;

we will analyse the swing of votes to the Republican party between the 2012 and 2016 presidential elections – the Trump margin<sup>2</sup> – and regress it on the three factors that might have driven the surge in vote for Trump in the 2016 election: social capital, interpersonal inequality, and economic and demographic decline. In view of the theoretical framework developed above, we will also look at the interactions between those factors, as the Trump vote could have increased in a) those places having suffered a long-term decline that are more unequal; in b) places with high social capital that are more unequal; and c) in places having suffered a long-term decline, with a strong level of social capital.

The model adopts the following form:

$$TM_{c,2012-2016} = \alpha + \beta_1 Income\ pc_{c,2016} + \beta_2 Inequality_{c,2016} + \beta_3 Social\ Capital_{c,2016} + \beta_4 Economic\ \&\ Demographic\ Change_{c,2016-t} + \gamma_1 \bar{X}_{c,t} + \nu_s + \varepsilon_c \quad (1)$$

where,

$TM_{c,2012-2016}$  represents the Trump margin, that is the change in the share of the vote between Donald Trump in 2016 and Mitt Romney in 2012;

$Income\ pc_{c,2016}$  denotes the income per capita in a county in 2016;

$Inequality_{c,2016}$  is a measure of income inequality within a county in 2016;

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<sup>2</sup> The swing in the share of votes is preferred to the share of Trump vote, as it is considered to be a better indication of the rise of populism in the US. Trump has been described (e.g. Norris and Inglehart, 2019) as an outsider with an authoritarian populist streak. Mitt Romney, by contrast, was a mainstream candidate with plenty of political experience within the Republican Party and a proven capacity in deal-making across partisan lines.

$Social\ Capital_{c,2016}$  depicts the level of social capital in a county in 2016;

$Economic\ \&\ Demographic\ Change_{c,2016-t}$  indicates changes in employment, population, average earnings, and average wages in a given county between 2016 and any year marking the start of a decade, going back to 1970;

$\bar{X}_{c,t}$  is a vector of other variables that could have affected a shift in the vote for Donald Trump. These include variables that have been identified in the scholarly literature as factors behind the rise in Trump and/or populist vote, including population density, levels of unemployment, education, and racial composition at the county level;

finally,  $v_s$  is a state-level fixed-effect, while  $\varepsilon_c$  denotes the error term.

## **Data**

### *Geographical units*

The analysis is conducted at county level. As the data are drawn from multiple sources and cover the last five decades, there was a need for some matching to reflect changes in county boundaries over the period of analysis. The data have, therefore, been levelled at the county geographical division used by the Bureau of Economic Analysis (BEA) in 2017. As county boundaries underwent extensive changes, particularly in the state of Virginia, some modifications have been included. In the case of Virginia 51 counties in the state have been assembled into 23 ‘county compounds’, or county-equivalents. Alaska, which also underwent considerable modification in local boundaries, is excluded from the analysis. In the rest of the US, county adjustments are either inexistent or very minor. A total of 3135 counties – or equivalent territorial units – are included in the analysis.<sup>3</sup>

### *Dependent variable and independent variables of interest*

The *dependent variable* in our model is the ‘Trump Margin’ (Figure 1), which is based on data drawn from the MIT Election Data and Science Lab. It represents the difference in the share of voter support for Donald Trump in the 2016 presidential election relative to that of the previous Republican candidate, Mitt Romney, in 2012. Following Goetz et al. (2019) and Agnew

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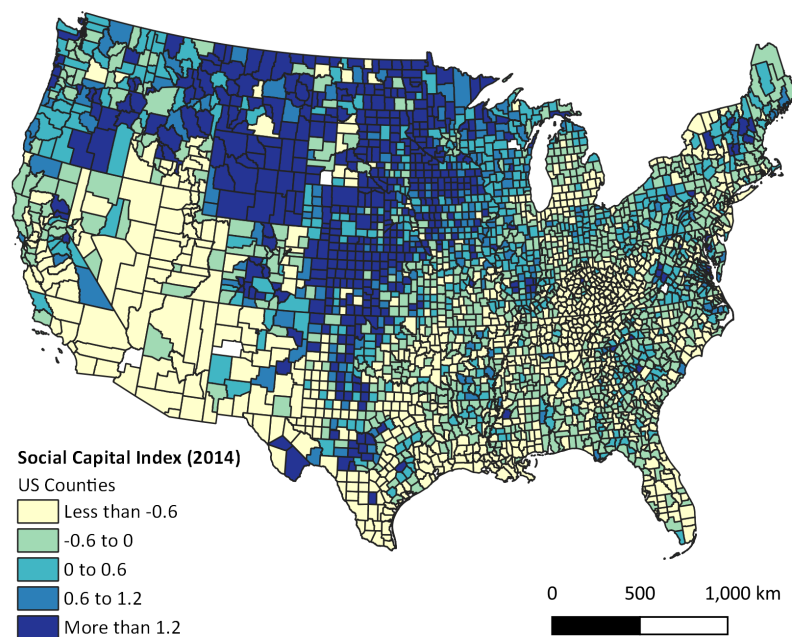
<sup>3</sup> The boundaries of Alaska’s county equivalents (boroughs and census districts) have undergone a considerable transformation, impairing the comparison over time. As Alaska’s population represents a mere 0.2 percent of the total US population, its boroughs and census districts, just 1 percent of US counties or equivalent, and the state provides 1.9 percent of presidential electors, the omission of the state is unlikely to cause significant distortions. In the case of the state of Virginia, we follow the geography of the US Bureau of Economic Analysis (BEA). Five additional counties were omitted because of lack of adequate data. These are: Maui and Kalawao (Hawaii), Broomfield (Colorado), Shawano and Menominee (Wisconsin).

and Shin (2019), we use the difference in share instead of Trump's overall share of votes, as we assume that this margin better signifies the increase in populist vote between both elections.

The three main independent variables of interest depict – following the theoretical discussion above – social capital, interpersonal inequality, and economic and demographic decline.

The measure for *social capital* is based on an update by researchers at Penn State for the year 2014 of Rupasingha's et al. (2006) index. Rupasingha et al. (2006) created – inspired by Putnam's (1993, 2000) concept of civic engagement and using principal component analysis – a social capital index at county level for the US including four key components. These were: a) the number of non-profit organisations in a county, excluding those with an international approach; b) the census response rates in 2010; c) voter turnout in the 2012 presidential election; and d) a number of associational indicators, including bowling centres, business, civic, and social associations, golf courses and country clubs, labour, professional, religious, and political organisations, fitness and recreational sports centres, sports teams and clubs, with all these factors aggregated and divided by population. The four factors included in the index were standardised. The first principal component is considered as the index of social capital.

**Figure 2.** Social capital across the US in 2014.



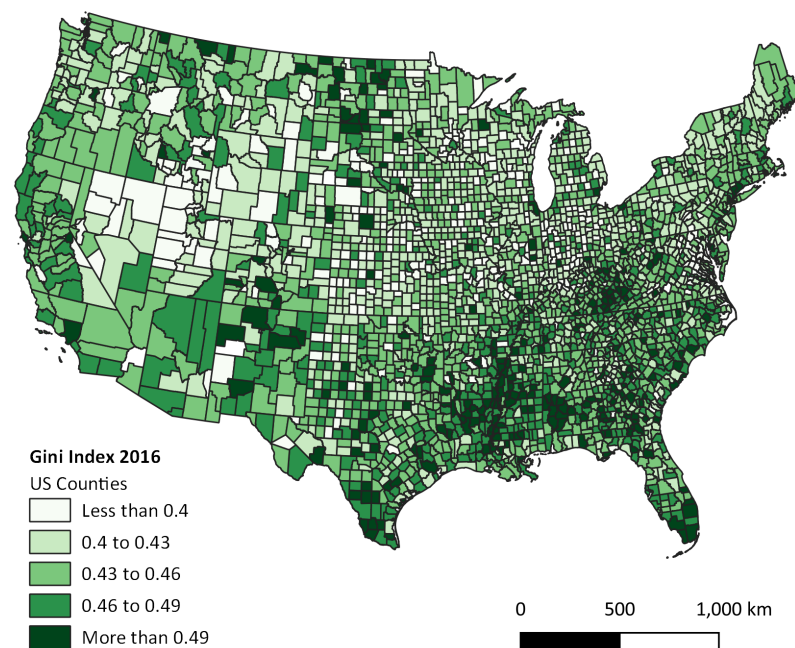
Mapping this index at county level provides a very uneven geography of social capital across the US. The highest levels of social capital were concentrated around the Midwest and, especially, the Great Plains states. Both Dakotas, Iowa, Kansas, Minnesota, Montana, Nebraska, and Wyoming boasted the highest level of social capital. Social capital was also high in the

northwest (Oregon and Washington state) as well as in some areas around the Great Lakes, such as Wisconsin, rural Illinois, Ohio, eastern Pennsylvania, and parts of New England. Social capital was, by contrast, significantly weaker in the South —and, particularly, in Kentucky and Tennessee— and in some Mountain states, such as Arizona, Nevada, and Utah (Figure 2).

The second independent variable of interest, *Interpersonal inequality*, is based on data drawn from the 2013-17 5-year American Community Survey (ACS). At the core of the analysis is the 2016 county-level Gini index of incomes in a county. Two alternative measures are considered for robustness tests. These are the share of the population in the county in the top income quintile and that in the top 5% of income.

Income inequality in the US is highest in the Deep South – and, particularly, in states such as Alabama, Arkansas, Louisiana, Mississippi, South Carolina, or eastern Kentucky – as well as in the largest urban agglomerations, such as New York City, Los Angeles, Chicago, Houston, Miami, Detroit, and the Bay Area (Figure 3). The lowest differences in income inequality are found in Midwestern states, and mainly in small-town and rural communities in Illinois, Indiana, Iowa, Missouri, Ohio, or Wisconsin, as well as in some parts of mountain states such as Nevada, Utah, or Wyoming (Figure 3).

**Figure 3.** Income inequality across counties in the US (Gini coefficient, 2017).



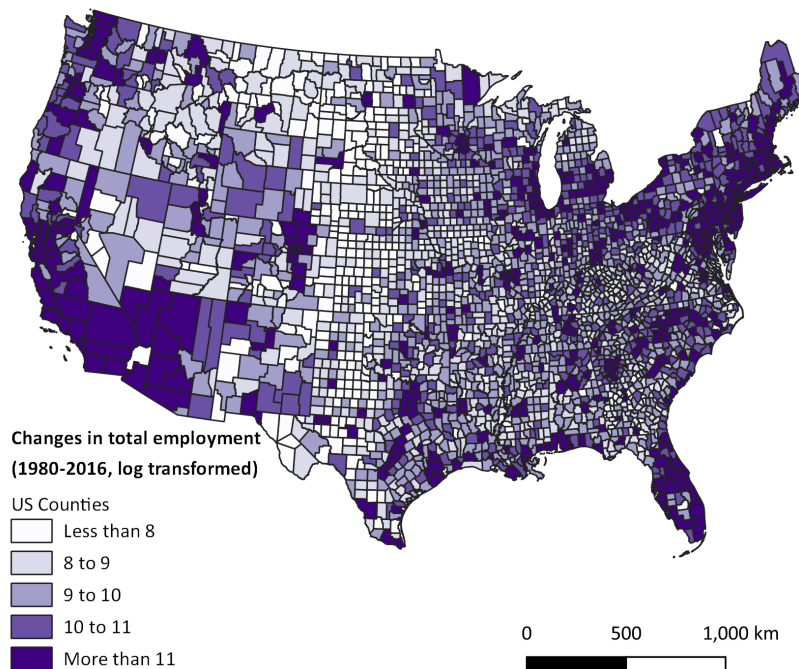
The third and final independent variable of interest is *Economic and demographic decline*. In the econometric analysis, we use four different proxies: three for economic change



(employment change, change in average earnings per job, and change in average wages and salary) and population change as a proxy for demographic change. The benchmark measure of change at the county level is employment change between 1980 and 2016. However, in successive parts of the analysis for all four economic and demographic change indicators are considered, covering, by decade, the period between 1970 and 2016. The data for 2016 is drawn from the 2013-17 5-year (ACS). For earlier years, we resort to Bureau of Economic Analysis data (2019). To ensure a normal distribution of residuals, all change variables are transformed logarithmically.

Figure 4 provides an indication of economic change across counties in the US. It represents changes in employment between 1980 and 2016. As expected, the biggest growth in employment over that period of 36 years took place along the Pacific coast, in the north-east urban corridor, and in southern Florida. The lowest levels of employment growth occurred in the Great Plains states, along a strip running from East Texas in the South to North Dakota in the North (Figure 4). Many areas south of the Great Lakes and in the South have also performed relatively badly in employment terms. However, all is not gloom around the Great Lakes, as the area between Chicago and Milwaukee witnessed considerable growth in employment, as did most of the counties on the shores of Lake Erie.

**Figure 4.** Employment change (1980-2016) across counties in the US.



### *Control Variables*

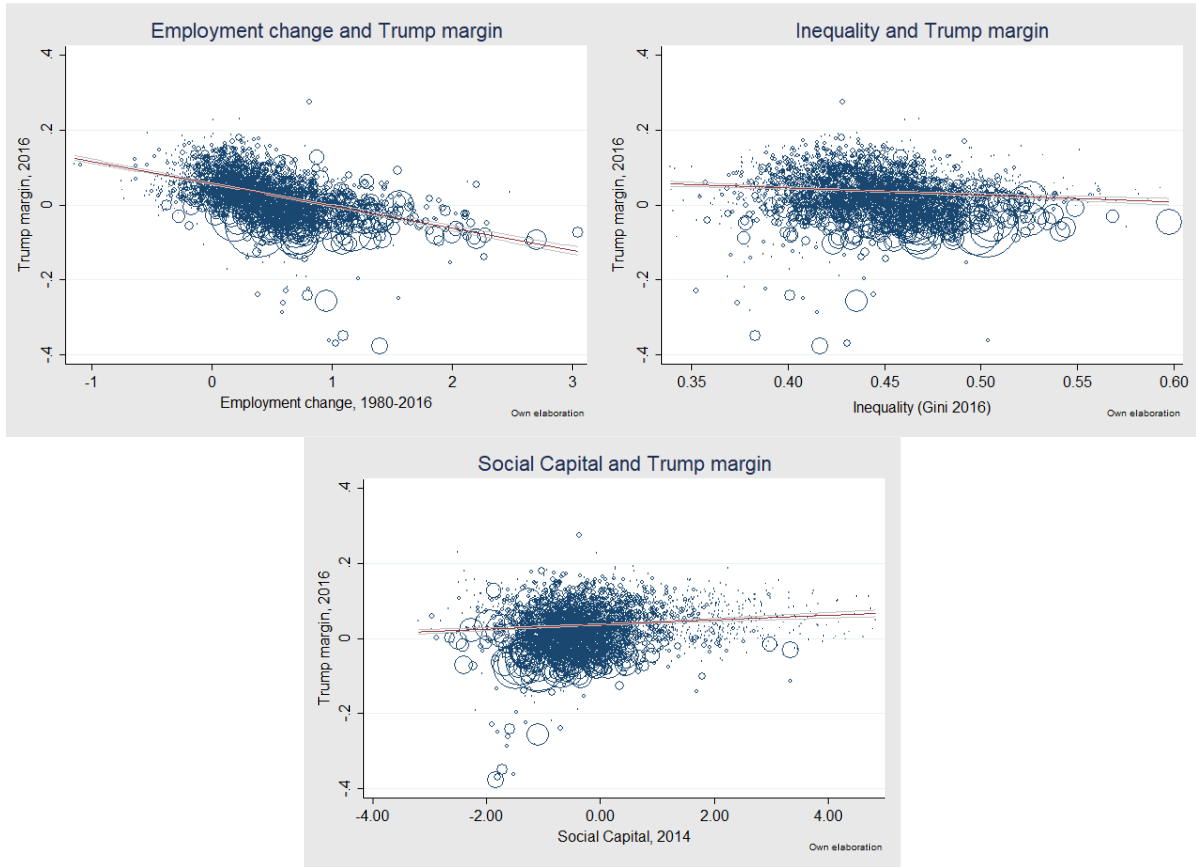
In addition, several control variables representative of factors that have been associated with the rise of populism in the US and elsewhere are included in the analysis. First, we consider income per capita in 2016, as variations in the territorial levels of wealth have been related to populist vote. Population density has been highlighted by certain authors (e.g. Rodden, 2019) as a driver of populism. Traditional parties – and mainly those of the left – are increasingly struggling in suburbs and rural areas of the US (Rodden, 2019). Population density at the county level is represented by its value in 2016. Unemployment is frequently regarded as another determinant linked to the rise of discontent and populism (Algan et al., 2017; Guriev, 2018). We control for the unemployment rate at the county level in 2016. Education is also a prominent factor behind the rise in anti-system voting. Low levels of education have, for many, been crucial for Brexit, the election of Donald Trump, and the rise of populist alternatives elsewhere (e.g. Goodwin and Heath, 2016; Sides et al., 2017; Essletzbichler et al., 2018). We, therefore, use an indicator of the percentage of adults with higher education in each county in 2016. Finally, the racial dimension has been recurrent in the analysis of the outcome of the 2016 US presidential elections, with some accounts highlighting that the role of race and racial attitudes may be more important than economic factors (e.g. Sides et al., 2017; Morgan and Lee, 2018; Reny et al., 2019). We control for the share of black population in 2016 in US counties and, in alternative specifications, for the share of whites in that year.

A list of the variables in the analysis, together with their definitions and sources, is included in Table A1 in the Appendix.

### ***Descriptive analysis***

What is the connection between the dependent variable (the Trump margin) and the independent variables of interest? Plotting the correlation between the Trump margin in the 2016 US presidential election and the three independent variables of interest reveals that the correlation between social capital, inequality, and employment change since 1980, on the one hand, and the Trump margin, on the other, is, at best, tenuous. The strongest correlation is between employment change and the swing in votes towards Donald Trump. Counties with a greater decline in employment over the period of analysis supported Donald Trump in far greater shares than they had Mitt Romney four years earlier. The link between interpersonal inequality and the increase in the Republican vote is inexistent, while places with a higher social capital 2014 showed marginally higher shifts in votes towards Donald Trump (Figure 5).

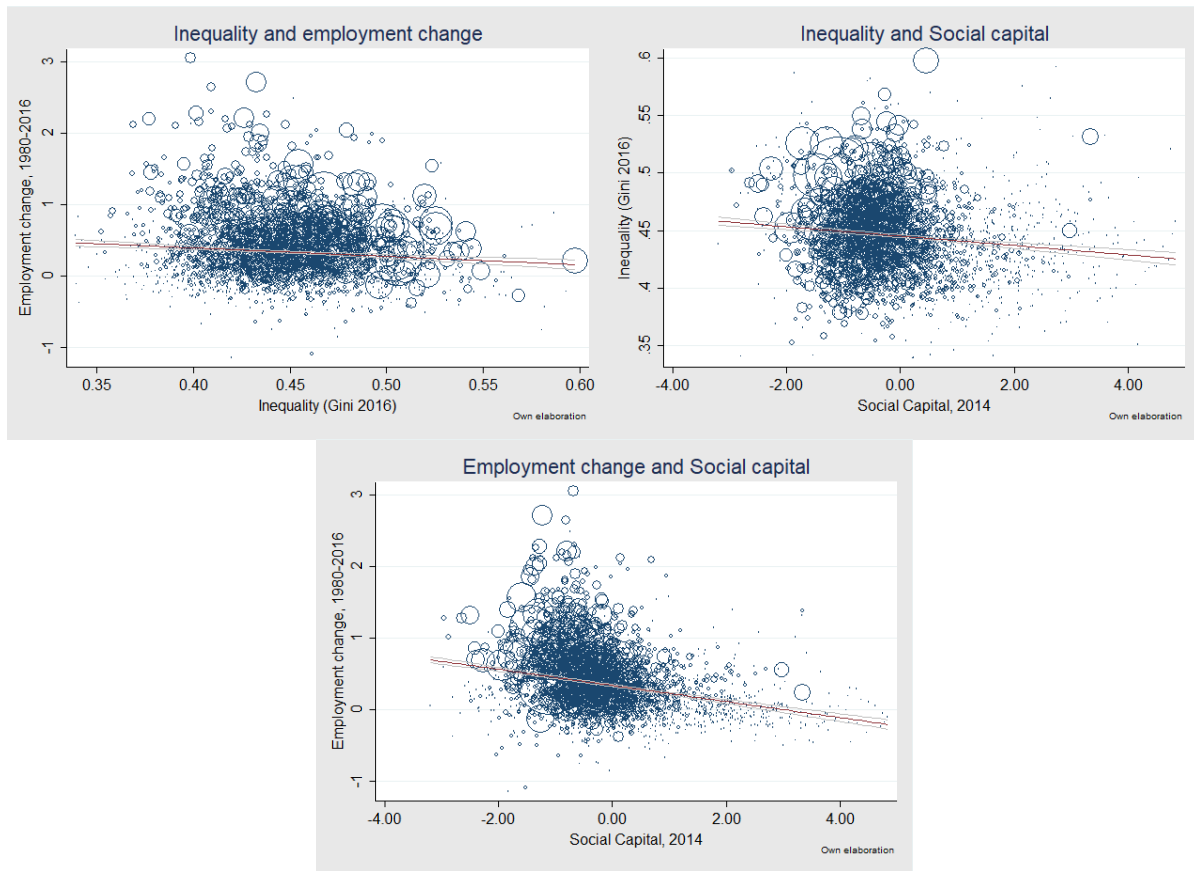
**Figure 5.** Scatterplots of the link between the dependent and the independent variables of interest.



Note: the population of the county is represented by the size of the circle.

The correlations among the independent variables of interest are similarly weak. There is no link between levels of inequality and changes in employment, while counties with higher levels of social capital have, on average, slightly lower interpersonal inequality and witness slightly lower employment growth since 1980 (Figure 6). The link between county size and any of the correlations is highly imperfect, although larger counties tend to be somewhat more unequal, have lower social capital, and experience, with notable exceptions, greater employment growth (Figure 6).

**Figure 6.** Scatterplots of the link among the independent variables of interest.



Note: the population of the county is represented by the size of the circle.

## Econometric analysis

### *Basic model*

The question is whether these relationships stand when all these factors are included together with additional controls in a regression analysis. The results of regressing model (1), using simple ordinary least squares (OLS) and including state fixed-effects, are presented in Table 1.

They highlight that, once the income per capita of the different counties in the US and the conditions of their state are controlled for, interpersonal inequality, long-term employment change, and differences in social capital across US counties are connected to a swing towards Donald Trump in the 2016 presidential election.

**Table 1.** Basic model

VARIABLES	(1) OLS	(2) OLS	(3) OLS	(4) OLS	(5) OLS
Income per capita (2016)	-0.110*** (0.004)	-0.085*** (0.004)	-0.118*** (0.004)	-0.087*** (0.004)	-0.026*** (0.004)
Inequality (Gini 2016)	-0.125*** (0.021)			-0.196*** (0.020)	-0.007 (0.019)
Employment change (1980-2016)		-0.033*** (0.002)		-0.033*** (0.002)	-0.017*** (0.002)
Social Capital (2014)			0.007*** (0.001)	0.003*** (0.001)	0.002*** (0.001)
Density (2016)					-0.000*** (0.000)
Unemployment rate (2016)					-0.001 (0.000)
Education (2016)					-0.003*** (0.000)
Share of black population (2016)					-0.001*** (0.000)
State FE	YES	YES	YES	YES	YES
Observations	3,078	3,078	3,078	3,078	3,077
R <sup>2</sup>	0.583	0.624	0.593	0.637	0.724
Adjusted R <sup>2</sup>	0.576	0.617	0.586	0.631	0.718
F test	83.10	98.30	86.51	100.1	138.7

Standard errors in parentheses

\*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1

However, this connection is not always in the direction expected by Robert Putnam (2000) in *Bowling alone*. The combination of social capital and lower inequality as a bulwark of American democracy is nowhere to be seen. While richer counties shifted towards Trump's populist positions in lower numbers than poorer counties, more unequal areas of the country were less swayed by populism. By contrast, places with greater civic engagement and a stronger social capital opted in larger numbers for the more extreme option. Counties that have witnessed considerable destruction of employment since 1980 were also lured to a greater extent by Trump's discourse than areas that experienced greater job generation (Table 1). These results are robust to including the three independent variables of interest together in the regression (Table 1, Regression 4) and additional controls expected, according to the literature, to affect populist vote (Table 1, Regression 5). The only exception is the coefficient for inequality, which becomes insignificant when all the controls regressed together (Regression 5).

The coefficients for the control variables are – except for unemployment rate – in line with expectations. More densely populated counties, counties with a lower presence of university graduates, and those with a smaller share of black population swung less to Trump in 2016.

These results are robust to changing the share of black population in a county by that of whites (Table A2) – with counties with a greater share of white population generally swinging towards Donald Trump – and to changes in the measurement of inequality at the county level. Counties with a greater percentage of people in the top income quintile (Table A3) and those with a higher proportion of individuals in the top 5% of the income distribution (Table A4) had a lower Trump margin in the 2016 elections. As in Table 1, the coefficients for these inequality variables remain negative but become insignificant in certain regressions.

The introduction of interactions between the independent variables of interest barely alters the results emanating from the basic model. Changes in employment since 1980 and all the control variables – including income per capita at the county level – yield the same sign in the coefficients and Virtually the same level of significance. Once again, counties that have seen a greater employment decline put more trust in Donald Trump than they did in Mitt Romney (Table 2). Social capital remains positive and significant, apart from Regression 2, where it becomes insignificant, while inequality displays a negative coefficient that is only significant when the interaction between employment change and inequality is considered (Table 2). The only significant interaction is that between employment change and interpersonal inequality (Table 2, Regression 1). The coefficient is positive and significant, meaning that the swing to Donald Trump was more pronounced not only in poorer counties, in those with lower inequalities and high social capital, and those that had suffered a long-term employment decline, but also in counties where high levels of employment growth were matched by a high degree of interpersonal inequality.

**Table 2.** Basic model with interactions

VARIABLES	(1) OLS	(2) OLS	(3) OLS
Income per capita (2016)	-0.027*** (0.004)	-0.026*** (0.004)	-0.026*** (0.004)
Inequality (Gini 2016)	-0.053** (0.023)	-0.008 (0.019)	-0.009 (0.019)
Employment change (1980-2016)	-0.075*** (0.016)	-0.017*** (0.002)	-0.016*** (0.002)
Social Capital (2014)	0.002*** (0.001)	-0.002 (0.006)	0.002*** (0.001)
Int. Inequality-Employment	0.134*** (0.037)		
Int. Inequality-Social capital		0.010 (0.013)	
Int. Employment-Social Capital			0.002 (0.001)
Controls	YES	YES	YES
State FE	YES	YES	YES
Observations	3,077	3,077	3,077
R <sup>2</sup>	0.725	0.724	0.724
Adjusted R <sup>2</sup>	0.720	0.718	0.718
F test	137.1	136.3	136.4

Standard errors in parentheses

\*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1

***Different types and time horizons of decline***

So far, we have concentrated just on one side of economic and demographic change: employment change since 1980. What happens if we consider different types of decline? In Table 3 we take into consideration not just employment change, but also population change (Regression 2), and change in average earnings per job and in average wages and salaries for the period between 1980 and 2016.

The results indicate that long-term employment and population decline over a period of almost 40 years has been strongly connected with a swing to Donald Trump at the ballot box in November 2016 (Table 3, Regressions 1 and 2). Declines in average earnings and in wages and salaries are, in contrast, disconnected from the Trump margin. These results chime well with the sprawling literature highlighting that the rise of populism in the US has more to do with racial issues than individual economic factors (Norris and Inglehart, 2019; Reny et al., 2019) and with a sense of alienation of the white working classes (Cramer, 2016; Walley, 2017; Morgan and Lee, 2018) – what Kimmel (2017) calls ‘angry white men.’ However, they also powerfully

relate to the literature that has focused on geographical dimensions and, in particular, with long-term economic decline, mostly in Europe (e.g. Rodríguez-Pose, 2018; Guilluy, 2019) but, increasingly, in the US (e.g. Wuthnow, 2019). However, in contrast to the findings for Europe, where the rise of anti-system voting at the ballot box has been linked to economic and industrial decline, but not to employment and demographic decay (Dijkstra et al., 2020), in the US it is the slow demise of still strong communities that have been losing employment and population for some time that triggers the reaction at the ballot box to a far greater extent than declines in earnings and salaries.

**Table 3.** Different types of change (1980-2016): employment, population, earnings, wages

VARIABLES	(1) OLS	(2) OLS	(3) OLS	(4) OLS
Income per capita (2016)	-0.026*** (0.004)	-0.029*** (0.004)	-0.028*** (0.004)	-0.028*** (0.004)
Inequality (Gini 2016)	-0.007 (0.019)	-0.024 (0.019)	0.029 (0.019)	0.028 (0.019)
Social Capital (2014)	0.002*** (0.001)	0.001** (0.001)	0.004*** (0.001)	0.004*** (0.001)
Density (2016)	-0.000*** (0.000)	-0.000** (0.000)	-0.000** (0.000)	-0.000** (0.000)
Unemployment rate (2016)	-0.001 (0.000)	-0.000 (0.000)	-0.001 (0.000)	-0.001 (0.000)
Education (2016)	-0.003*** (0.000)	-0.003*** (0.000)	-0.003*** (0.000)	-0.003*** (0.000)
Share of black population (2016)	-0.001*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)
Employment change 1980-2016	-0.017*** (0.002)			
Population change 1980-2016		-0.022*** (0.002)		
Average earnings per job change 1980-2016			-0.002 (0.002)	
Average wages and salaries change 1980-2016				-0.007 (0.004)
State FE	YES	YES	YES	YES
Observations	3,077	3,077	3,076	3,077
R <sup>2</sup>	0.724	0.725	0.716	0.716
Adjusted R <sup>2</sup>	0.718	0.720	0.711	0.711
F test	138.7	139.9	133.5	133.7

Standard errors in parentheses  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1



Once we have established that long-term unemployment and demographic decline have a powerful connection to Trump’s vote margin in the 2016 presidential election, the question is whether this association waxes or wanes with time. Table 4 looks at the change in these relationships over time – including the link with changes in average earnings and wages and salaries – since 1970 and shortening the length of the period covered by ten years in every regression. This implies that the regressions are the same as in Table 3, only substituting the time covered in each of the economic and demographic decline variables. Only the coefficients for these variables are reported in Table 4, as there are no significant changes in the other coefficients.

**Table 4.** The dimension of the connection over time

	<b>Employment change</b>	<b>Population change</b>	<b>Change in average earnings per job</b>	<b>Change in average wages and salary</b>
<b>2010-2016</b>	-0.042*** (0.007)	-0.151*** (0.014)	-0.003 (0.005)	0.011 (0.010)
<b>2000-2016</b>	-0.030*** (0.004)	-0.061*** (0.005)	-0.002 (0.004)	-0.003 (0.006)
<b>1990-2016</b>	-0.019*** (0.003)	-0.030*** (0.003)	-0.001 (0.003)	0.005 (0.005)
<b>1980-2016</b>	-0.017*** (0.002)	-0.022*** (0.002)	-0.002 (0.002)	-0.007 (0.004)
<b>1970-2016</b>	-0.012*** (0.001)	-0.013*** (0.002)	-0.004 (0.003)	0.003 (0.004)

Standard errors in parentheses  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

The coefficients displayed in Table 4 prove that the link between employment and population decline at the county level and Trump’s vote margin is not a recent phenomenon. The coefficients for employment and population change are always negative and highly significant, regardless of the period considered. Counties that have been shedding employment and losing population since the 1970s were more inclined to support Donald Trump than Mitt Romney four years earlier. Having said that, the dimension of the negative coefficients is larger for the more recent periods than for longer time spans. The 2008 Great Recession has provided a greater springboard for the rise of populist discourse and a populist candidate, but the seed of discontent had been planted, as indicated by Cramer (2016), quite some time earlier.

Table 4 once again points to the fact that this reaction at the ballot box is more about the long-term decline of communities shedding jobs and people than about the loss of earnings, wages, and salaries. The coefficients for the latter are always insignificant. Hence, “it is not the very

poor that are threatening the political system but the large numbers of still relatively well-off people – often seen as the threatened middle classes – still living relatively comfortable lives but in declining places” (Rodríguez-Pose, 2020: 1-2).

## Conclusions

Two decades ago, Robert Putnam (2000) warned that American democracy was at risk from the twin challenges of the decline in civic engagement and social capital, on the one hand, and the rise in interpersonal inequality, on the other. More Americans bowling alone and engaging to a far lesser extent than before in local communities and an increasingly divided society from an economic perspective represented a threat to the democratic institutions that had been built since independence.

Sixteen years later his forecast materialised to a degree with the election of Donald Trump, an outsider and political novice with strong populist tendencies, who first stunned the Republican Party elite by securing its presidential nomination, and then went on to beat the Democratic party candidate, Hillary Clinton, in the November 2016 election.

Yet, the election of a candidate that, by shaking the system, has stretched American democracy to the limit, may have had little to do with declining social capital and rising interpersonal inequality and much more with the long-term employment and population decline of many formerly prosperous American communities. These communities are precisely those where social capital – the very form of capital that, according to Putnam (2000), was supposed to provide the glue for America’s democratic institutions – has held stronger than elsewhere.

This is what this paper has shown. By combining social capital with interpersonal inequality and long-term economic and demographic decline at county level in the US and linking it to the swing to Donald Trump at the ballot box in the 2016 presidential elections, it has revealed that the rise in discontent identified by some scholars (e.g. Cramer, 2016; Kimmel, 2017; Wuthnow, 2019) is at the root of 2016’s electoral tsunami. However, and in contrast to previous research, the analysis has put in evidence the deep geographical roots of this phenomenon. It is not just simply the white working class that is rebelling against the system. There are plenty of white working-class voters on the West Coast, along the eastern megalopolis, or in American large cities, but also in medium-sized cities, towns, and rural areas that did not swing and/or did not vote for Donald Trump. It is middle- and working-class individuals, who live in communities that have seen better times and have for long experienced a slow, but relentless employment and population decline, and where social capital has remained relatively strong, that cast the decisive votes to put Donald Trump in office. Hence, social capital and local civic engagement may not have acted as the positive forces envisaged by Granovetter (1977) or Putnam (2000), but more in a negative way suggested by Satyanath et al. (2017), through mechanisms possibly

linked to local consciousness and identity (Cramer, 2016).

The long-term economic and demographic decline of many tightly-knit American communities is driving the rise of populism. A decline that can be traced back to the second half of the 20<sup>th</sup> century and that has created a malaise that goes well beyond the crisis and that is increasingly manifesting itself at the ballot box. Declining, but still rather cohesive communities with strong social capital are the drivers of this process. In mostly small-town and rural areas of the US, the rise in the populist vote is a consequence of a reaction of strong communities in which individual losses are strongly identified with collective losses. And social capital may act as the transmission mechanism. Individuals living in these communities know that a loss for one is a loss for all. Therefore, the rise of populism in the US is fundamentally linked to the geography of decline; to places that, despite remaining relatively homogeneous in terms of interpersonal inequality, have witnessed considerable employment and demographic decay over the long term. The Great Recession of 2008 may have ignited the fuse that resulted in the election of Donald Trump as president, but the discontent has been running for long and runs far deeper.

By contrast, the places with far higher interpersonal inequalities and weaker social capital – mainly the cities – may be reaching boiling point (as seen in the aftermath of the killing of George Floyd in May 2020), but are not so far those responsible for driving the rise of populism at the ballot box.

There is greater need to know the exact mechanisms through which social capital may contribute to transforming long-term decline into populist votes; more need to analyse, using both in-depth qualitative and quantitative studies, why the long-time brewing geography of discontent in declining small-town and rural America has only come to fruition from a political perspective in recent years. But one thing seems to be increasingly clear. The declining American communities – that have seen better times, that have been dismissed as ‘rust belts’, ‘red neck areas’, or ‘flyovers’ – are no longer bowling alone. They are now golfing with Trump, and they will, in all likelihood, continue to play ball with whoever pays attention to their plights and allows them to exact their revenge at the ballot box against what they consider an unfair and harmful system.

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## Appendix

**Table 1.** Variable description and sources.

VARIABLES	N	Mean	Med	St.Dev	Source
Trump Margin	3078	0.04	0.04	0.06	MIT Election Data and Science Lab
Social Capital (2014)	3078	-0.00	-0.22	1.25	Researchers at Penn State and Rupasingha's et al. (2006)
Gini (2016)	3078	0.45	0.44	0.04	2013-17 5-year American Community Survey (ACS)
Employment change (1980-2016) (ln)	3078	0.34	0.27	0.43	ACS
Income share of the 5 <sup>th</sup> quantile (2016)	3072	48.22	47.94	3.15	ACS
Income share of the top 5 percent (2016)	3072	20.41	20.09	2.98	ACS
Income per capita (2016) (ln)	3078	10.59	10.57	0.23	ACS
Density (2016)	3077	232.74	42.80	1673.16	ACS
Unemployment rate (2016)	3078	3.58	3.50	1.52	ACS
Education (2016)	3078	20.90	18.90	9.22	ACS
Share of black population (2016)	3078	9.86	3.10	14.66	ACS
Share of white population (2016)	3078	85.73	92.40	16.08	ACS



**Table A2.** Basic model, substituting the share of black population a county in 2017 by that of whites.

VARIABLES	(1) OLS	(2) OLS	(3) OLS	(4) OLS
Income per capita (2016)	-0.027*** (0.004)	-0.028*** (0.004)	-0.027*** (0.004)	-0.027*** (0.004)
Inequality (Gini 2016)	0.002 (0.019)	-0.048** (0.023)	0.002 (0.019)	-0.000 (0.019)
Employment change (1980-2016)	-0.016*** (0.002)	-0.080*** (0.016)	-0.016*** (0.002)	-0.015*** (0.002)
Social Capital (2014)	0.001** (0.001)	0.001** (0.001)	0.001 (0.006)	0.001* (0.001)
Int. Inequality-Employment		0.147*** (0.036)		
Int. Inequality-Social capital			0.001 (0.013)	
Int. Employment-Social Capital				0.002 (0.001)
Density (2016)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)
Unemployment rate (2016)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Education (2016)	-0.003*** (0.000)	-0.003*** (0.000)	-0.003*** (0.000)	-0.003*** (0.000)
Share of white population (2016)	0.001*** (0.000)	0.001*** (0.000)	0.001*** (0.000)	0.001*** (0.000)
State FE	YES	YES	YES	YES
Observations	3,077	3,077	3,077	3,077
R <sup>2</sup>	0.727	0.728	0.727	0.727
Adjusted R <sup>2</sup>	0.722	0.723	0.722	0.722
F test	141	139.5	138.5	138.6

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table A3.** Basic model (substituting GINI for the share of population in the top income quintile).

VARIABLES	(1) OLS	(2) OLS	(3) OLS	(4) OLS	(5) OLS	(6) OLS	(7) OLS	(8) OLS
Income per capita (2016)	-0.109*** (0.004)	-0.085*** (0.004)	-0.118*** (0.004)	-0.086*** (0.004)	-0.025*** (0.004)	-0.027*** (0.004)	-0.025*** (0.004)	-0.026*** (0.004)
Inequality (Share of aggregate income in the top quintile 2016)	-0.001*** (0.000)			-0.002*** (0.000)	-0.000 (0.000)	-0.001*** (0.000)	-0.000 (0.000)	-0.000 (0.000)
Employment change (1980-2016)		-0.033*** (0.002)		-0.033*** (0.002)	-0.017*** (0.002)	-0.091*** (0.019)	-0.017*** (0.002)	-0.016*** (0.002)
Social Capital (2014)			0.007*** (0.001)	0.003*** (0.001)	0.002*** (0.001)	0.002*** (0.001)	-0.004 (0.007)	0.002*** (0.001)
Int. Inequality-Employment						0.002*** (0.000)		
Int. Inequality-Social capital							0.000 (0.000)	
Int. Employment-Social Capital								0.002 (0.001)
Controls	YES	YES	YES	YES	YES	YES	YES	YES
State FE	YES	YES	YES	YES	YES	YES	YES	YES
Observations	3,072	3,078	3,078	3,072	3,071	3,071	3,071	3,071
R <sup>2</sup>	0.584	0.624	0.593	0.636	0.724	0.726	0.724	0.725
Adjusted R <sup>2</sup>	0.577	0.617	0.586	0.630	0.719	0.720	0.719	0.719
F test	83.06	98.30	86.51	99.63	138.9	137.4	136.5	136.6

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table A4.** Basic model (substituting GINI for the share of population in the top 5% of the income distribution).

VARIABLES	(1) OLS	(2) OLS	(3) OLS	(4) OLS	(5) OLS	(6) OLS	(7) OLS	(8) OLS
Income per capita (2016)	-0.108*** (0.004)	-0.085*** (0.004)	-0.118*** (0.004)	-0.086*** (0.004)	-0.025*** (0.004)	-0.026*** (0.004)	-0.025*** (0.004)	-0.025*** (0.004)
Inequality (Share of aggregate income in the top 5% of the population 2016)	-0.001*** (0.000)			-0.002*** (0.000)	-0.000 (0.000)	-0.001*** (0.000)	-0.000 (0.000)	-0.000 (0.000)
Employment change (1980-2016)		-0.033*** (0.002)		-0.031*** (0.002)	-0.017*** (0.002)	-0.043*** (0.009)	-0.017*** (0.002)	-0.016*** (0.002)
Social Capital (2014)			0.007*** (0.001)	0.003*** (0.001)	0.002*** (0.001)	0.002*** (0.001)	-0.003 (0.003)	0.002*** (0.001)
Int. Inequality-Employment						0.001*** (0.000)		
Int. Inequality-Social capital							0.000* (0.000)	
Int. Employment-Social Capital								0.002 (0.001)
Controls	YES	YES	YES	YES	YES	YES	YES	YES
State FE	YES	YES	YES	YES	YES	YES	YES	YES
Observations	3,072	3,078	3,078	3,072	3,071	3,071	3,071	3,071
R <sup>2</sup>	0.582	0.624	0.593	0.632	0.724	0.725	0.725	0.725
Adjusted R <sup>2</sup>	0.575	0.617	0.586	0.625	0.719	0.720	0.719	0.719
F test	82.60	98.30	86.51	97.67	139	137.1	136.7	136.7

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1