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RESEARCH ARTICLE

Place matters: government capacity, community characteristics, and social capital across United States counties

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Abstract

Communities with high levels of social capital enjoy an array of positive economic and community development outcomes. We assess the role of several key community characteristics, including the strength of government institutions, in explaining local social capital variation. The analysis draws on data from United States counties and includes regression modelling and a Blinder–Oaxaca decomposition to explore differences in social capital across an area's metropolitan status and region. The data show social capital determinants vary by place both due to the endowment levels of these determinants *and* the productive value of their coefficients. For example, the coefficient productive values of government capacity explain some differences in social capital levels across metropolitan status (but *not* across region). Concurrently, variations in government capacity endowment levels help explain some differences in social capital levels across region (but *not* across metropolitan status).

Keywords: characteristics; community; community economic development; government capacity; place variation; social capital

Introduction

> Organized civil society has never flourished apart from active government and inclusive democratic politics. (Skocpol 1996, 25)

Scholars have long argued that social capital has the capacity to transform local community and economic development (Coleman 1988; Putnam et al. 1994). Areas with high levels of social capital have been linked with a range of desirable outcomes including more civic participation (Brehm and Rahn 1997; Letki 2006), improved

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government performance (Coffé and Geys 2005; Goldfinger and Ferguson 2009), and increases in a variety of economic indicators (Flora et al. 1997; Hoyman et al. 2016). There is strong evidence that place has an important role in social capital variation (Tannenwald 1999). Putnam (2001), for example, documented how some states like Vermont tend to have high social capital levels, while others like Mississippi are on the lower end. Hawes et al. (2013) have expanded on such findings, showing that over time trends in state-level social capital are not uniform. However, most research does not explore the nature of social capital's place-based linkages. Why some areas are so endowed with social capital and others so bereft of it (Goetz et al. 2012)?

We consider several explanations for why social capital varies by place. A core aspect of our analysis is the role of government capacity (Lowndes and Wilson 2001; Skocpol 1996). Broadly speaking, research has frequently demonstrated that civil society writ large has an ongoing and symbiotic relationship with strong government institutions (Salamon 1987, 1995). Ostrom (2000, 182), for instance, has argued that governments positively affect aggregate social capital levels when "space for self-organization is authorized outside of the realm of required government action." The function of government institutions in this area is related to their role as facilitators in the formation of civic associations and similar groups (Skocpol et al. 2000; Wallis and Dollery 2002). The connection between government institutions and social capital is important because of its relationship to community and economic development. There is some evidence that the role of social capital (operationalised as generalised trust) in fostering economic growth may change based on the strength of government institutions (Ahlerup et al. 2009). Alongside government capacity, we also consider the relative importance of other place-based community determinants like education, household income, income inequality and racial diversity.

The analysis proceeds with a two-pronged test to assess the relationship between place-based determinants and social capital at the local level. First, we examine whether levels of social capital vary because counties differ in their *level* of government capacity and other community-level characteristics. Second, we consider whether differing levels of social capital can be attributed to *differing productive values* of each determinant across place.

Defining social capital

Scholars define social capital in many different ways (Adler and Kwon 2002; Coleman 1988; Portes 2000). Some scholars focus on social capital as an individual construct, using measures such as trust in government or civic participation. In contrast, others conceptualise social capital at the organisational level. Putnam et al. (1994, 167) define social capital as "features of social organizations, such as trust, norms, and networks that can improve the efficiency of society by facilitating coordinated actions." Both definitions of social capital – individual and associational – are important in the context of the community-level determinants explored in this analysis.

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Governments and social capital

Skocpol et al. (2000, 542) argue "an institutional approach to civic life suggests that state, politics, and society are – for better or worse – inevitably intertwined." At the associational level, government institutions affect social capital through enduring relationships with voluntary organisations (Skocpol 1996). Concurrently, strong and high-performing public institutions also foster feelings of trust between individuals (McLaren and Baird 2006; Nooteboom 2007) and between individuals and the government (Wolak and Palus 2010). There is evidence that civically active communities (Brehm and Rahn 1997) with strong local government institutions (Wallis and Dollery 2002) can positively influence social capital levels.

Strong governments may foster social capital because "policy performance can be a *source* of trust, not just a *result*." (Levi 1996, 50). Government policy performance includes how public institutions distribute benefits, allocate costs and resolve community disputes (Ostrom 2000; Ostrom and Libecap 1994). Actions taken by governments can either encourage or discourage citizens from coming together to solve collective-action problems (Keele 2007; Ostrom 2000; Rothstein and Stolle 2008; Wallis and Dollery 2002).

Most studies on the use of policy to leverage social capital have been comparative in nature (Freitag 2006; Hall 1999; Levinsen et al. 2012). These lines of inquiry have suggested governments that encourage civic participation in the policy process are associated with higher levels of social capital (Maloney, Smith, and Stoker 2000). In the United States (US), some literature suggests participants in federal-level programmes are more likely to exhibit individual-level social capital behaviours than nonparticipants (Wichowsky and Moynihan 2008). Research on this topic for local governments tends to involve specific policy areas. For example, research on local sustainability policies has demonstrated that success is strongly related to a government's managerial and community network capacity building (Wang et al. 2012). Local interventions also frequently act as social capital catalysts during periods of policy punctuation, a phenomenon that has been observed during natural disaster recovery (Chamlee-Wright and Storr 2011).

In Putnam et al.'s (1994) work, historically strong government institutions in Northern Italy were associated with higher civic engagement. But it is important to note that while these findings were considered groundbreaking at the time; other work has criticised this narrative on the importance of government. Tarrow (1996) and Levi (1996), for example, argue that Putnam's theories were a historical narrative that did not necessarily fit the quantitative findings. Plus, some evidence hints that government institutions are often ill-equipped to act as social capital builders (Fukuyama 1995; Wacquant 1998). Additionally, the nature of the relationship between government and social capital is not always clear. Solt (2004) finds that economic development, and not social engagement, has the most powerful association with strong democratic institutions. Others have hypothesised that social capital is an environmental resource utilised by governments (Pierce et al. 2002), but its benefits are unequal across the public sector's diverse constituencies (Compton and Meier 2016).

One way of measuring institutional strength is capacity, since this influences a government's ability to act autonomously (Warner 1999). This analysis operationalises capacity through per capita expenditures at the county government level. We

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theorise the increasing fiscal and policy independence of county governments (Benton 2005; Benton and Menzel 1991) could make them central actors in the promotion of social capital. Once referred to as the "dark continent of American politics" (Snider 1952), counties were historically very reliant on state/federal support and frequently managed by elected leaders with marginal administrative experience (Torrence 1974). But over the past few decades, policy devolution trends have caused a sea change in county governance (Gold 1996; Kelleher and Yackee 2004). Increasing administrative and policy demands (Marando and Reeves 1993; Streib and Waugh 1991) have compelled counties to become more innovative and make better use of existing resources (Giles et al. 1980; Waugh and Hy 1988). More than ever before, counties have large and growing roles as the service delivery arms for both state and city governments (Hoene et al. 2002).

Variation by place

The importance of place is a popular narrative in political science and sociology (Goetz et al. 2012). But how place is defined and operationalised varies considerably. We use a geographic lens of metropolitan status and region to better understand how government capacity and other community-level determinants may explain differences in social capital across space. Previous studies suggest both of these geographic definitions of place could influence aggregate social capital (Hofferth and Iceland 1998; Rupasingha et al. 2006).[1]

Metropolitan status

Some data point toward social capital being higher in less-populated communities. Compared to metropolitan areas, many non-metropolitan areas have a cultural norm of dealing with risk through collective action (Durante 2009; Sharp and Smith 2003). Yet other research suggests non-metropolitan areas could have lower social capital levels. Because of geographic distance between neighbours, residents in less population-dense areas may have fewer social interactions with each other (Goudy 1990; Wilkinson and Pickett 2009). High levels of geographic distance between community members can be especially detrimental to social capital formation in underserved areas (Stinner et al. 1990). Similarly, research on metropolitan areas also paints an unclear picture. Some claim social capital is higher in densely populated communities. The dense environment of metropolitan areas may increase contact between diverse individuals, leading to greater trust (Wilkinson and Pickett 2009). However, other data show metropolitan areas have lower levels of collective action and interpersonal trust. A large number of associational contacts in metropolitan neighbourhoods can cause individuals to limit their social relationships (Goudy 1990) or form connections that are weaker in quality (Fallah and Partridge 2007; Granovetter 1973).

[1]Concurrently, it is also important to acknowledge there is a correlation between common characteristics of "place" and many of the variables included in our models. A community's socioeconomic characteristics – including local government capacity, income inequality and racial diversity – can all be defining qualities of place. This is a limitation of our research design.

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Region

Scholars have also noted variation across geographic regions. Putnam et al. (1994) argue that region has long played a large role in social capital variation across place. Putnam (2001) later observed that the American South generally has lower levels of social capital than other regions. In the South, institutionalised racial discrimination hampered the development of generalised trust and limited horizontal social networks across races (Uslaner 2008). In fact, Portes and Vickstrom (2011, 468) observe "...the North/South cleavage is so distinct in the geographic distribution of social capital that sheer average temperatures may be used as a proxy...: the lower the temperature, the higher the social capital." Most studies generally confirm the idea that the South has lower levels of social capital. Explanations for this difference primarily rely on regional socioeconomic characteristics. For example, education and income are generally lower in the South (Goetz and Rupasingha 2003).

Methodology

This research analyses the impact of government institutional capacity and other community-level characteristics on social capital variation across 3,141 US counties.[2] The number of counties used in this analysis is 2,959 due to the removal of 153 social capital outliers using Tukey's (1977) rule and dropping 29 counties that were missing observations.[3] The analysis has two stages. First, we explore the impact of government and other community variables through ordinary least squares (OLS) regression modelling. The purpose of the regression is to test the effect of each determinant on levels of social capital. We then use a Blinder–Oaxaca decomposition model that scholars often use to test for inequalities in health and economic outcomes (Bartolini and Sarracino 2015; Jann 2008). The decomposition model examines how observed differences in county social capital can be explained by both differing *levels* of determinants and the differing *effects* of those determinants across metropolitan status and region.

Counties as the unit of analysis

Lobao and Kraybill (2005) argue that research on counties has largely been neglected, even though they are now the fastest-growing general-purpose governments. Counties are becoming "enigmatic hybrids of state and local government" (Hoene et al. 2002, 575) as they continue to increase their role in a variety of service areas. This includes expanding purviews in functions related to economic

[2]Although local governments at the county level are powerful policy actors, there may be some concern about state-level effects. To test this, we created a multilevel model that matches the OLS regression model, except that it allows for intercept variance by state. This showed substantially similar results, with no changes in sign or material changes in coefficient values.

[3]The missing data values come from a small number of counties with extremely small population sizes or places where it is not possible to obtain data from county governments (or their equivalent – for example, Alaska's boroughs). In the case of independent cities where there is no county-equivalent government unit, we aggregated the values for all municipal governments within a county's borders. For the five counties encompassed by New York City, government expenditures have been allocated by dividing New York City's total expenditures proportionally by each county's population.

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development, public health and the provision of recreational amenities (Benton 2007; Park and Feiock 2012). For example, county governments have long been active in community development policy because of their role in administering Medicaid and community development block grant (CDBG) programmes (Ellison et al. 1986). The increased scope of county government functions has made their institutional capacity more important than ever before (Lobao et al. 2012).

County-level data can highlight important connections among social capital, racial diversity, income inequality, household income and education (Khatiwada 2014). This aligns with a growing body of scholarship that draws on counties as the unit of analysis in social capital research (Beyerlein and Hipp 2005; Goetz et al. 2012; Hoyman et al. 2016; Rupasingha et al. 2000, 2002; Tolbert, Lyson, and Irwin 1998). A wide array of multi-disciplinary research uses county-based frameworks in sociology (Portes and Vickstrom 2011; Rupasingha and Chilton 2009), public administration (Andrews and Brewer 2013; Hoyman and McCall 2010; Tavits 2006), public health (Kim et al. 2006; McLaughlin et al. 2001; Yang et al. 2011) and economics (Goetz and Swaminathan 2006; Jha and Cox 2015; Ranjith and Rupasingha 2012; Rupasingha et al. 2006).

Variable operationalisation

Social capital

We operationalise social capital using a composite index developed by Rupasingha et al. (2006 with updates). The index is structural in nature, meaning it captures "the forms and varieties of organizations and networks that are thought to contribute to the development of social capital" (Sherrieb et al. 2010, 233). Assessments of the index by other scholars demonstrate it has content, convergent and nomological validity. Lee and Kim (2013) compared it against two other county-level social capital constructs operationalised as (1) the number of individuals working at voluntary organisations per capita and (2) the percent of a locality's adults who report having a social support structure (Brown et al. 2006; Scheffler et al. 2007). They conclude there is "compelling evidence that the index is a very useful, valid tool for researchers interested in social capital processes at the US county level" (Lee and Kim 2013, 322).

The index is comprised of four separate components that measure different aspects of associational activity and community participation. The first component aggregates the number of voluntary associations per 10,000 population.[4] This encompasses horizontal associations (that promote interactions between people of similar interests) as well as "rent-seeking" organisations (that seek financial gain for their members) (Knack and Keefer 1997). The second item measures the percentage of individuals who voted in presidential elections. The third variable is county-level census response rates. Voting and completing the census are forms of civic "collective action," which serve as proxies for socially cooperative attitudes (Knack 2002). The final construct is the density of charitable nonprofit

[4]This is inclusive of: religious organisations, civic and social associations, business associations, political organisations, professional organisations, labour organisations, bowling centres, physical fitness facilities, public golf courses and sports clubs.

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organisations, excluding those organisations that have an international focus. The first principal component in the index explains 30% of the variation and has an eigenvalue of 1.202. The mean of the index is zero and ranges from a low of −3.183 to a high of 21.809.

Government institution capacity

Government institution capacity has been operationalised in a variety of ways (Kwon et al. 2009; Lobao and Kraybill 2009). Singular measures of capacity have included the total number of government employees (Hall 2008) and revenue per capita (Ha et al. 2016). Others have defined capacity more broadly with measures to include government resources, networks and leadership (Chaskin 2001). Gargan (1981, 656) described governing capacity as simply "the ability of a local government to do what it wants to do." In that vein, we define capacity as county government expenditures per capita (Reese and Rosenfeld 2001). A government's ability to raise and spend money may be related to proxies of social capital activity, including volunteering rates (Salamon and Sokolowski 2003) and trust levels (Rothstein and Stolle 2008). We argue that a government's ability to foster social capital is directly related to its expenditures of public funds. County governments that spend more on a relative basis are likely to promote higher levels of social capital.[5]

Other social capital determinants

We also consider the role of social capital community determinants identified by existing studies. One of the most important predictors of social capital in the literature is the socioeconomic status of residents in a community as measured by education (Delhey and Newton 2005) and income (Helliwell and Putnam 2007). We measure education levels as the percentage of a county's adults who have obtained a bachelor's degree or higher. Income is operationalised as household median income in units of $10,000. This is based on the idea that those with more resources can engage in more social capital generating activities (Kasarda and Janowitz 1974). Higher incomes are consistently predictive of participation in both politics and associational life (Coleman 1988).[6] The inclusion of socioeconomic status is important because these variables are likely to be associated with measures of government capacity (Glaeser 2001; Hoyman et al. 2016). Extant literature suggests both income and education will be associated with higher levels of social capital.

[5]It is important to note that counties vary in their form of government, and this variation may have place-based patterns (Hendrick and Shi 2015). Some counties are managed by appointed administrators, who are chosen either by an elected county executive or a board of elected officials. Almost half of the county governments are managed by appointed administrators (Istrate and Mills 2015; Marando and Reeves 1993). A locality's form of government has inherent connections to its capacity (Tausanovitch and Warshaw 2014; Trounstine 2009). But as operationalised in this analysis – through government expenditures – form of government may be less connected to capacity than it is in other contexts (S.-W. Kwon and Gonzalez-Gorman 2019; Morgan and Kickham 1999).

[6]Admittedly household income is simply one measure of local resources. Other measures of local resources – like household net worth – may give a more complete picture (Bricker et al. 2017; Marré and Pender 2013). But household net worth data are generally not available for all United States counties.

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Beyond socioeconomic status, community racial heterogeneity may also play a large role in aggregate levels of social capital (Costa and Kahn 2003; Delhey and Newton 2005; Portes and Vickstrom 2011). We measure racial diversity using a Gini-Simpson index (Simpson 2004). The index is calculated as one minus the sum of the squared proportion of each type of racial group. As the index approaches one, population diversity increases with the chance of two random individuals being from the same racial group decreasing. Research on the relationship between diversity and social capital is mixed. Some data suggest diversity can be a positive factor. Tsai et al. (2011) find that diversity does not lower trust, even when controlling for a variety of socioeconomic variables.

But other research suggests social capital could be lower in diverse communities.[7] Putnam's (2007) constrict theory argues that diversity is often a challenge for social capital creation because it causes residents to "hunker down." Empirical tests of constrict theory have mixed results (Hawes and Rocha 2011; Savelkoul et al. 2015). Hawes and McCrea (2018) contend this because social capital operates in a fundamentally different manner across diverse neighbourhoods. Other theoretical justifications include homophily that is the tendency of people who are similar to one another to interact more frequently than with people who are dissimilar (McPherson et al. 2001).[8] With no clear consensus, there is an insufficient theoretical basis to hypothesise an expected relationship between diversity and social capital.

A final major community-level determinant is income inequality (Robison and Siles 1999; Tolbert et al. 1998). As Putnam (2001, 294) notes: "Inequality and social solidarity are deeply incompatible." Income inequality increases social disparities and class polarisation – causing a reaction that lowers generalised trust (Kawachi et al. 1997; Knack and Keefer 1997). There is some evidence that growing income inequality is at least partially responsible for declines in social capital across the US (Putnam 2001; Subramanian et al. 2003). Income inequality may also vary with place in ways that affect aggregate social capital. For example, income inequality could have a stronger effect in rural communities because individuals with limited social contacts are more likely to know and interact with others of radically different incomes (Fallah and Partridge 2007). Income inequality is measured using the Gini index (Giorgi and Gigliarano 2017). As the index approaches one, a community is approaching perfect inequality. We expect that as income inequality increases, social capital levels will decline.

Control variables

We also include some control variables. First, because even metropolitan counties can include rural areas, the models incorporate the percentage of a county's population that lives in a rural area. This is distinct from the non-metropolitan variable that we use for the split sample. Second, we include the percentage of a county's residents who are Black to account for how large concentrations of a single minority group may affect social capital. Stolle et al. (2008) find that individuals who are

[7]Hero (2003b; 2007) offers a meta-critique on the issue and notes that the gains attributed to social capital often disproportionately accrue to Caucasians.

[8]Others have also argued that diversity means that individuals are less likely to share values and norms, making it harder to agree upon collective priorities (Coffé and Geys 2006).

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members of "visible minorities" report less generalised trust. Third, the percent of the population that has voted for the Democratic candidate in the 2012 Presidential election is included as a proxy measure for political ideology. Political attitudes may influence other key variables of interest, including both social capital (Hero 2003a) and county government capacity (Choi et al. 2010; Miller 1991). Finally, we include the percentage of a county's foreign-born population. There is growing evidence that social capital may operate differently in areas with large immigrant populations (Hawes and McCrea 2018).

Place variation

We compare the determinants of social capital listed above both across metropolitan status and region. The definition of metropolitan status includes all counties within a metropolitan statistical area, as determined by the US Census Bureau.[9] Metropolitan counties are coded as one. All other counties, including micropolitan (suburban) statistical areas and rural areas, are coded as zero.[10] Overall, 21% of counties are metropolitan, and 79% are non-metropolitan. On average, metropolitan counties have social capital scores of −0.520, while non-metropolitan counties have an average score of −0.056. We also compare variation across the South and non-South regions (Portes and Vickstrom 2011). Southern counties are those in the South Atlantic, East Central and West Central regions of the US.[11] Southern counties are coded as one, while all other regions are considered non-Southern and coded as zero. Overall, 47% of counties are Southern, and 53% are non-Southern. Social capital scores average −0.523 for Southern counties and 0.166 for non-Southern counties. We hypothesise that social capital will vary in part because of these geographic measures.[12]

Research scope and limitations

Limitations of extant social capital definitions and theory

A great deal of social capital literature tends to view and test the construct across racially and economically homogeneous communities. Thus, the normative social

[9]This includes an urban core population of at least 50,000. The degree of social and economic integration is measured by commuting patterns.

[10]Micropolitan counties are those that include an urban core size between 10,000 and 50,000 population of at least 10,000, but less than 50,000 (Standards for Delineating Metropolitan and Micropolitan Statistical Areas 2010).

[11]South Atlantic includes District of Columbia, Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina and West Virginia. East Central includes Alabama, Kentucky, Mississippi and Tennessee. West Central includes Arkansas, Louisiana, Oklahoma and Texas.

[12]We conducted several tests to ascertain whether average social capital scores in Southern states, as defined above, are significantly different than scores in non-Southern states. First, using Putnam's (2001) state-level data, all three sub-regions in our definition of the non-South (West, Midwest and Northeast) have average social capital scores that do not differ significantly ($p < 0.05$) from one another. This was determined by fitting a simple OLS regression model with social capital index scores as the dependent variable and a regional categorical (factor) variable as the independent variable. Second, in a bivariate regression model with Putnam's (2001) state index scores as the dependent variable and an indicator variable for South as the independent variable, the coefficient for South is negative and statistically significant ($p < 0.01$).

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capital theory has developed through analyses of higher income and mostly white communities. But social capital may work differently in areas with high concentrations of racial minorities (Lin 2000), ethnic minorities (Huijts et al. 2014) and in places with higher income inequality (Hargreaves Heap et al. 2013).[13] There is some evidence that the positive effects of social capital on outcomes like economic equity do not accrue to non-white populations at the same rate enjoyed by white populations (Hero 2003b). The fact that social capital's definitional contours may be different in racially or economically heterogeneous neighbourhoods is a limitation of the research.

The models try to partially account for this issue by (1) use of an index that includes congregation density within the dependent variable and (2) including the Black population percentage as a control variable. Cross-disciplinary research highlights that religiosity in general, and Black churches, in particular, may play a key role in the creation of social capital across diverse communities (Koopmans and Veit 2014; Putnam and Campbell 2012). Of particular note is the importance of Black churches in encouraging their congregations to be politically active, a key driver of civic participation (Calhoun-Brown 1996). For example, McClerking and McDaniel (2005) have noted that Black churches are successful in encouraging political activity from their members because they engage in a wide range of activities that create a sense of obligation to the local community.[14] Similarly, other research has shown how religious institutions that encourage heterogeneous social interactions can foster outcomes like lower income inequality (Hoyman et al. 2016).

Multi-faceted nature of place

While we use a "place matters" framework for the analysis and results, the term belies the complexity of what actually defines a "place" (Lichter and Ziliak 2017). A community's identity is much more than its physical or administrative boundaries. Drier et al. (2013) show that the socioeconomic characteristics of a community (in addition to its geographic contours) are important in predicting a place's economic and social prosperity. These community-level characteristics have important implications for a variety of development inputs and outputs. Similarly, the urban politics literature has long argued that what defines a place is a constellation of variables including population density, the character of a built environment, land utilisation, the presence of political regimes and social interactions (Stone 1993; Ward and Imbroscio 2011).[15] For this reason, our analysis divides the data into metropolitan status and region, but the models include a variety of place-related variables that go beyond geography. The analysis thus represents a starting point to consider the complexity of place.

[13]It could be that negative findings in this area are reflective of the fact that general community heterogeneity (and *not* racial diversity specifically) leads to lower levels of social capital (Coffé 2009).

[14]Black church congregants are often politically active because informal interactions with fellow churchgoers create mutually reinforcing civic norms that overcome the paradox of participation (McKenzie 2004; Strom 1975).

[15]The nuance of place has also been refined throughout the decades with numerous case studies that are often a dominant line of inquiry in community and economic development research (DeLeon 1992; Ferman 1996).

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Endogeneity and causality

There are perennial concerns about endogeneity, which are often raised in any study of social capital. For example, social capital improves the performance of government (Easterly et al. 2006), increases the capability of acquiring jobs through weak ties (Granovetter 1973) and reduces income inequality (Ram 2013). But all these variables represent potential determinants for aggregate levels of social capital. We have attempted to address the issue of endogeneity by lagging all independent variables of interest and the control variables. However, such concerns will always be a limitation of this kind of data analysis. As noted in many studies on the determinants of social capital, causal relationships are usually ambiguous (Bjørnskov 2007; Delhey and Newton 2005).

Findings and results

Descriptive statistics

Table 1 displays summary data for each variable. Counties are divided into three categories: all counties, counties by metropolitan or non-metropolitan status and counties by South or non-South region. To determine whether there were statistically significant differences across place, we used independent-samples t-tests for all variables listed in Table 2. Social capital, education levels, household income, income inequality, racial diversity, black population and political ideology all have statistically significant differences ($p < 0.01$) at the regional level. The government variable for region displayed significance at the $p < 0.05$ level. There were no statistically significant differences for the rural and foreign-born control variables across region. All variables had statistically significant differences ($p < 0.01$) across metropolitan status, although differences in government expenditures were marginally significant ($p < 0.10$). The descriptive statistics thus hint at the importance of variance by place, although differences appear to be more pronounced at the metropolitan status level.

OLS regression

Next, we consider how the relative effects of our independent variables change when controlling for place. Table 3 includes all variables except metropolitan status and region in model 1, and then includes both geographic variables in model 2.[16] The inclusion of place variables raises the explanatory power of the models from an adjusted R^2 of 0.252 to 0.361. Both being in the South and being in a metropolitan county are associated with notable declines in aggregate social capital index scores. The coefficient values for government capacity (0.074, $p < 0.01$ to 0.071, $p < 0.01$) and education (0.096, $p < 0.01$ to $p < 0.089$, $p < 0.01$) show little change when controlling for metropolitan status and region. Increasing county government expenditures per capita by one standard deviation (about $1,493) would be expected to increase a county's social capital index value by 0.110. When controlling for region and metropolitan status, the expected effect of an identical increase in expenditures

[16]The variance inflation factors (VIFs) for the model variables range from a low of 1.085 for government capacity to a high of 3.462 for racial diversity.

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Table 1. Model descriptive statistics

	All Counties				Metropolitan Status			Region		
					Metro	Non-Metro	Mean	South	Non-South	Mean
Model Variables	Min	Max	Mean	SD	Mean	Mean	Δ	Mean	Mean	Δ
Dependent Variable										
Social Capital	−2.581	2.326	−0.160	0.914	−0.520	−0.056	−0.464	−0.523	0.166	−0.689
Independent Variables										
Government	0.003	24.864	1.428	1.493	1.521	1.40	0.121	1.488	1.374	0.114
Education Levels	2.100	41.900	12.26	5.28	17.33	10.79	6.54	10.88	13.51	−2.63
Household Income	1.887	11.331	4.343	1.154	5.337	4.054	1.283	4.025	4.629	−0.604
Racial Diversity	0.000	0.689	0.209	0.170	0.290	0.185	0.105	0.290	0.136	0.154
Income Inequality	0.272	0.606	0.432	0.0367	0.437	0.430	0.007	0.445	0.419	0.026
Control Variables										
Rural Population	0.000	100.000	57.18	31.032	18.588	68.41	−49.822	59.68	54.93	4.75
Black Population	0.000	86.757	9.288	14.663	11.078	8.767	2.311	16.898	2.445	14.453
Foreign Born	0.000	49.445	4.272	5.336	8.231	3.12	5.111	4.225	4.315	−0.09
Political Ideology	3.448	90.214	38.716	14.538	46.966	36.316	10.65	36.261	40.924	−4.663

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Table 2. Model overview

Model Variable	Operationalisation	Source
Dependent Variable		
Social Capital	Index of four measures representing 2014 social capital levels: (1) number of associations per 10,000 population, (2) percent of individuals who voted in presidential elections, (3) census response rates and (4) density of charitable organisations.	Northeast Regional Center for Rural Development (2014)
Independent Variables		
Government	Dollars of county government expenditures per capita in 2012 (American Community Survey 2009f), inclusive of: current operations, interest on debt, subsidies, insurance benefits, capital outlays and intergovernmental expenditures (US Census Bureau n.d.).	US Census Bureau (2012)
Education Levels	Proportion of the county's population 25 or older with a bachelor's degree or more in 2009.	American Community Survey (2009b)
Household Income	County household median income, expressed in units of $10 k, in 2009.	American Community Survey (2009d)
Racial Diversity	Diversity index for 2009 ranging from 0 to 1, as the index increases the level of diversity in the county increases. The following racial categories are included: White, Black, American Indian, Asian, Native Hawaiian and some other race.	American Community Survey (2009a)
Income Inequality	Inequality index ranging from 0 to 1 for 2009, as the index increases the level of income inequality in the county increases.	American Community Survey (2009c)
Control Variables		
Rural Population	Proportion of a county's total population living in rural areas in 2010.	US Census Bureau (2010)
Black Population	Proportion of a county's total population, which is Black in 2009.	American Community Survey (2009a)
Political Ideology	Proportion of a county's voting returns for the Democratic presidential candidate during the 2012 general elections.	MIT Election Data and Science Lab (2018)
Foreign Born	Proportion of a county's total population, which is foreign born in 2009.	American Community Survey (2009e)

Table 3. Regression models including/excluding place variables

	Model 1 All Counties		Model 2 Counties with Place	
Model Variables	Coefficient	Significance	Coefficient	Significance
Independent Variables				
Government	0.074 (0.010)	***	0.071 (0.009)	***
Education Levels	0.096 (0.004)	***	0.089 (0.004)	***
Household Income	−0.195 (0.022)	***	−0.124 (0.021)	***
Racial Diversity	−1.131 (0.159)	***	−0.557 (0.149)	***
Income Inequality	−3.490 (0.532)	***	−0.596 (0.510)	–
Control Variables				
Rural Population	0.007 (0.001)	***	0.004 (0.001)	***
Black Population	0.003 (0.002)	*	0.013 (0.002)	***
Foreign Born	−0.019 (0.004)	***	−0.017 (0.003)	***
Political Ideology	0.002 (0.001)	–	−0.008 (0.001)	***
Constant	0.706 (0.276)	**	0.032 (0.257)	–
Place Variables				
Metropolitan	–	–	−0.521 (0.046)	***
	–			
South	–	–	−0.717	***
	–		(0.037)	
Model Summary				
Adjusted R^2	0.252		0.361	
Observations	2,959		2,959	

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Standard errors are in parentheses.

declines only slightly to 0.106. Increasing the level of educational attainment by one standard deviation (the equivalent of increasing the percentage of a county's population over the age of 25 with a bachelor's degree by 5.28%) corresponds to an expected social capital index value increase of 0.505. When controlling for region and metropolitan status, that expected effect has a small decline to 0.469.

Meanwhile, other community-level characteristic variables display more notable shifts in coefficient values. For example, the strongly negative effects of income inequality lose statistical significance when controlling for place. And while racial diversity retains a negative sign, it becomes smaller both in terms of coefficient value (from −1.131, $p < 0.01$ to −0.557, $p < 0.01$) and relative effect size when moving from model 1 to model 2.[17] Without accounting for place a single standard deviation change in racial diversity – an increase in the value of a county's Gini-Simpson index by 0.170 – would result in a −0.193 change in social capital index scores. But the negative effect of one standard deviation change after accounting for metropolitan status and region shows a different story. With the inclusion of place variables, increasing diversity by one standard deviation only results in a social capital index change of −0.095.

Table 3 also displays some counter-intuitive results as it suggests *higher* incomes may *lower* county-level social capital. Although this effect declines somewhat after

[17]Additionally, while the coefficient size is small, it is interesting that a county's proportion of Black residents is a positive force for social capital and more than quadruples when moving from Model 1 (0.003, $p < 0.1$) to Model 2 (0.013, $p < 0.01$).

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accounting for geography (−0.195, $p < 0.01$ in model 1 to −0.124 $p < 0.01$ in model 2), it remains an unexpected result.[18] Increasing the median household income in a county by one standard deviation (about $11,540) corresponds with an expected change of −0.225 in that county's social capital index value. But after controlling for region and metropolitan status, that effect size falls to −0.143. This suggests that place could play an important role in the relationship between household income and aggregate social capital. There is some research suggesting higher incomes might depress social capital creation for a variety of reasons (Bjørnskov 2007). Possible explanations include that higher income households are more likely to replace the community-oriented associational activity with private sector leisure (Galaskiewicz et al. 2013). The findings are also consistent with literature showing no positive relationship between social capital and higher incomes after controlling for community-level characteristics (Bjørnskov 2007; Rupasingha et al. 2006).

To explore how coefficients may differ across place, Table 4 contains a split sample that divides counties into metropolitan (Model 1), non-metropolitan (Model 2), South (Model 3) and non-South (Model 4). We used a Chow test to determine whether the beta coefficients are different across samples. The Chow test examines the difference in the magnitude of the beta coefficients in regression models fit on different subsets of data. For this analysis, the test considers the contribution of each independent variable when including metropolitan status and region. All beta coefficients were significantly different across metropolitan status and region ($p < 0.01$).

Table 4's regional models 3 and 4 show the positive influence of government capacity supports higher coefficient values in the non-South (0.097, $p < 0.01$) versus the South (0.082, $p < 0.01$). Meanwhile, models 1 and 2 show the government capacity variable loses statistical significance in metropolitan counties while retaining it in non-metropolitan counties (0.064, $p < 0.01$). These preliminary findings suggest that the positive effect of government institutions may vary across different facets of place. But other community determinant variables show greater variability, both in terms of coefficient value changes and sign changes. Higher-income inequality has a negative relationship (−3.864, $p < 0.01$) with social capital in non-metropolitan areas, but has an unexpectedly positive influence in metropolitan counties (4.171, $p < 0.01$).[19] To contextualise these results, a one-standard deviation increase in income inequality (moving up 0.034 on the Gini index) would be associated with an increase of 0.144 on the social capital index in metropolitan counties. But in non-metropolitan counties, a one-standard deviation increase in income inequality is associated with a −0.143 decline in the social capital index.

At the regional level, racial diversity changes from having a marginally positive coefficient in Southern counties (0.372, $p < 0.1$) to a negative coefficient in non-Southern counties (−1.962, $p < 0.01$). The relative effect size of diversity is also much higher in the non-South, where increasing the Gini-Simpson racial diversity index value by one standard deviation results in a −0.266 change in social capital in

[18]The findings may also reflect an "ecological fallacy" whereby correlations at the individual level do not hold at the group level (Kramer 1983). Social capital research is particularly susceptible to this phenomenon, although our research design minimises the issue by controlling for regional effects (Puntscher et al. 2016).

[19]This may be related to the type of social capital being generated. Highly visible income inequality in dense population areas can bolster bonding social ties (Narayan 2002).

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Table 4. OLS regression models by metropolitan status and region

	Model 1 Metropolitan		Model 2 Non-Metropolitan		Model 3 South		Model 4 Non-South	
Model Variables	Coefficient	Significance	Coefficient	Significance	Coefficient	Significance	Coefficient	Significance
Independent Variables								
Government	0.009 (0.014)	–	0.064 (0.012)	***	0.082 (0.012)	***	0.097 (0.014)	***
Education Levels	0.031 (0.006)	***	0.119 (0.005)	***	0.084 (0.006)	***	0.070 (0.006)	***
Household Income	0.032 (0.028)	–	−0.145 (0.029)	***	−0.096 (0.029)	***	−0.209 (0.030)	***
Racial Diversity	−1.158 (0.254)	***	−0.945 (0.180)	***	0.372 (0.192)	*	−1.962 (0.238)	***
Income Inequality	4.171 (0.840)	***	−3.864 (0.615)	***	0.671 (0.660)	–	−0.298 (0.790)	-
Control Variables								
Rural Population	0.006 (0.002)	***	0.004 (0.001)	***	0.006 (0.001)	***	0.007 (0.001)	***
Black Population	0.003 (0.003)	–	0.005 (0.002)	**	0.013 (0.002)	***	−0.001 (0.005)	-
Foreign Born	−0.030 (0.005)	***	−0.017 (0.005)	***	−0.007 (0.004)	–	−0.013 (0.005)	**
Political Ideology	0.014 (0.002)	***	<−0.001 (0.001)	–	−0.017 (0.002)	***	−0.001 (0.002)	-
Constant	−3.326 (0.412)	***	0.713 (0.334)	*	−1.542 (0.358)	***	0.145 (0.379)	-
Model Summary								
Adjusted R2	0.334		0.273		0.237		0.307	
Observations	667		2,292		1,401		1,558	

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Standard errors are in parentheses.

Table 5. Blinder-Oaxaca decomposition by place

Decomposition Details	Metroversus Non-Metro		South versus Non-South	
Mean Prediction (Non-Metropolitan, Non-South)	−0.056	***	0.166	***
Mean prediction (Metropolitan, South)	−0.520	***	−0.523	***
Raw Differential	0.464	***	0.688	***
Differences Due to Endowments	**0.139 (0.081)**	*	**−0.222 (0.036)**	***
Government	−0.001 (0.002)	–	−0.009 (0.003)	**
Education Levels	−0.206 (0.041)	***	0.221 (0.023)	***
Household Income	−0.041 (0.036)	–	−0.058 (0.018)	***
Racial Diversity	0.121 (0.028)	***	−0.057 (0.030)	*
Income Inequality	−0.032 (0.009)	***	−0.018 (0.017)	–
Rural Population	0.308 (0.094)	***	−0.031 (0.008)	***
Black Population	−0.008 (0.007)	–	−0.189 (0.033)	***
Foreign Born	0.152 (0.026)	***	−0.0006 (0.001)	–
Political Ideology	−0.154 (0.020)	***	−0.079 (0.013)	***
Differences Due to Coefficients	**0.646 (0.054)**	***	**0.360 (0.070)**	***
Government	0.083 (0.028)	***	0.021 (0.028)	–
Education Levels	1.517 (0.144)	***	−0.157 (0.092)	*
Household Income	−0.947 (0.215)	***	−0.454 (0.167)	***
Racial Diversity	0.062 (0.090)	–	−0.676 (0.089)	***
Income Inequality	−3.514 (0.455)	***	−0.432 (0.458)	–
Rural Population	−0.035 (0.038)	–	0.052 (0.069)	–
Black Population	0.017 (0.040)	–	−0.238 (0.100)	**
Foreign Born	0.108 (0.057)	*	−0.026 (0.029)	–
Political Ideology	−0.684 (0.105)	***	0.582 (0.093)	***
Constant	4.039 (0.530)	***	1.687 (0.521)	***

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Standard errors are in parentheses.

non-South counties, compared to a 0.063 increase in the index across Southern counties. Such findings offer additional support for theories that social capital may work through different mechanisms in racially diverse communities (Hawes and McCrea 2018). Finally, the data yet again hint that higher income levels have a negative association with social capital in some places. But it is interesting to note the coefficient is not significant in metropolitan counties and changes are notable when moving from the non-South (−0.209, $p < 0.01$) to South (−0.096 $p < 0.01$) models.

Blinder–Oaxaca decomposition

Both the descriptive statistics and regression models suggest that the *level* of community determinants and the *effects* of those determinants may vary across place. To further explore this, we estimated two Blinder–Oaxaca decompositions that measure social capital differences between (1) metropolitan and non-metropolitan counties and (2) South and non-South counties. The Blinder–Oaxaca decomposition in Table 5 decomposes the difference in mean outcomes as a gap in endowments and a gap in coefficients. For purposes of this research, we will sometimes refer to endowments as characteristics of a community determinant. The gap in characteristics measures the expected change in levels of social capital if metropolitan counties had the same characteristics as non-metropolitan counties. The second

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element measures the expected change in social capital if the effect of the coefficients (β) was the same across metropolitan status. We refer to the effect of coefficient decomposition as changes in productive values. A second decomposition parses the same question but compares effects across the South and non-South.

Variation across metropolitan status

The mean index of social capital for metropolitan counties is −0.520, while the mean social capital index for non-metropolitan counties is −0.056, a difference of 0.464 ($p < 0.01$). The average social capital level is lower for metropolitan areas partially because these counties often have lower values of certain community determinants that are associated with aggregate social capital increases. Metropolitan counties would see an increase in social capital index values (0.139, $p < 0.1$) if they had the same levels of the model's independent variables as non-metropolitan counties. Notably, differences in social capital across metropolitan status are not due to variance in government expenditures. If metropolitan counties had the same (lower) levels of government capacity as non-metropolitan counties, their social capital index scores would see almost no change (−0.001, not statistically significant). Similarly, differences in household income levels also have a small (−0.041) and statistically insignificant effect on mean social capital index levels across metropolitan status.

Metropolitan areas are more diverse, but this diversity, as operationalised in our models, results in lower aggregate levels of social capital. If metropolitan areas had the same (lower) levels of diversity as non-metropolitan areas, their social capital levels would increase by 0.121 ($p < 0.01$). There are also a few notable differences in social capital levels due to the control variables. Having a higher population density seems to be a large disadvantage for metropolitan communities. If metropolitan counties had the same (higher) level of their population living in rural places as non-metropolitan counties, aggregate social capital values would be expected to increase by 0.308 ($p < 0.01$) on average. Conversely, the high levels of education in metropolitan counties may give them an advantage in social capital production. If metropolitan counties had the same (lower) levels of education as non-metropolitan counties, the mean social capital index scores would change by −0.206 ($p < 0.01$).

If we were to apply the coefficients from non-metropolitan counties to metropolitan counties, social capital index scores in metropolitan counties would increase by an average of 0.646 ($p < 0.01$). This is notable because it means most of the variation in social capital across metropolitan status is attributable to changes in coefficient values. Unlike endowment levels, the productive value of government capacity is statistically significant. If the larger coefficient on government expenditures in non-metropolitan counties (0.064, $p < 0.01$) was applied to metropolitan counties, social capital index scores would be expected to increase by 0.083 ($p < 0.01$).

The largest share of across group differences in social capital levels at the metropolitan level is attributable to place-based changes in income inequality. If income inequality had the same coefficient effect in metropolitan counties as it does in non-metropolitan counties (−3.864, $p < 0.01$), the average social capital index value for metropolitan counties would decline by −3.514 ($p < 0.01$). This finding may support research that suggests income inequality has more negative effects

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in non-metropolitan areas because it is more visible and obvious to residents than in urban areas (Fallah and Partridge 2007). Finally, the coefficient decomposition again demonstrates that education is a positive force for social capital, but its productive value effects can vary dramatically across place. If metropolitan communities had the same higher education coefficient as non-metropolitan communities (0.119, $p < 0.01$), their aggregate social capital index score would increase by an average of 1.517 ($p < 0.01$).

Variation across region

The story at the regional level is that non-South counties have higher average social capital index values (0.166) than South counties (−0.523). Raw differentials at the regional level are higher (0.688, $p < 0.01$) than at the metropolitan level, suggesting that, in aggregate, the influence of region plays a stronger role in explaining place-based social capital variation than metropolitan status. In aggregate, if South counties had the same levels of the tested community determinant characteristics as non-South counties, their social capital index scores would change by an average of −0.222 ($p < 0.01$). Differences in average government per capita expenditures across South and non-South counties have a small but statistically significant effect on social capital levels. If South counties had the same (lower) levels of government expenditures as non-South counties, average social capital would be expected to decline by 0.009 ($p < 0.05$). In the South, counties also have levels of household income (lower) and racial diversity (higher), which aid in the production of social capital. Among the independent variables of interest, only the South's relatively lower level of education seems to be a disadvantage. If South counties had the same (higher) levels of education as non-South counties, their social capital index scores would increase by an average of 0.221 ($p < 0.01$). The model's control variables also show a few interesting patterns. Having a higher proportion of Black residents (−0.189, $p < 0.01$) gives South counties a social capital advantage over non-South counties. And while South counties have lower levels of Democratic vote share than non-South counties, this appears to benefit South counties in terms of social capital production (−0.079, $p < 0.01$).

Like metropolitan status, differences in coefficients (or productive values) explain more of the variation in regional social capital index scores. While levels of various community determinants help South counties promote social capital, the coefficients on these variables do not give the South an aggregate advantage. If South counties had the same coefficient productive values as non-South counties, their social capital would increase by an average of 0.360 ($p < 0.01$). This is mostly attributable to regional differences in political ideology. If South counties had the same coefficient value for political ideology as the non-South, social capital index values would increase by a mean of 0.582 ($p < 0.01$). Differences in coefficients for government per capita expenditures are not statistically significant at the regional level. Most of the other independent variables of interest – racial diversity, household income and educational levels – have coefficient values that favour the South. For example, if South counties had the same negative coefficient value for diversity as the non-South (−1.962, $p < 0.01$), aggregate social capital index values would change by −0.676 ($p < 0.01$).

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Discussion and conclusions

Our findings offer a first step in deconstructing the complex relationship between place and the many community-level determinants of social capital. The role of government institutions on social capital across place is particularly important. For better and for worse, social capital is often seen as an integral factor for community and economic development by policy actors (Oh et al. 2014; Ponzetto and Troiano 2018). Research demonstrating that localities with high levels of social capital enjoy a variety of positive socioeconomic outcomes may help drive that assumption (Engbers et al. 2017). However, the data show that, to some degree, "place matters" in explaining social capital variation. Only two types of community determinants – government capacity and education levels – show a consistently positive relationship with social capital. But like all variables in our models, these factors seem to shape county social capital levels differently through their endowment levels *and* coefficient productive values. Since endowment levels and productive values can vary greatly across metropolitan status and region, the findings hint that determinants of social capital may be more place bound than other research has suggested.

Over the past few decades, the literature has ascribed much potential to social capital theory as a public policy lever. The scholarship has posited that attempts to change or draw upon community social capital might be useful in a sundry array of areas like affordable housing (Lang and Hornburg 1998), public health (Helliwell 2006), disaster recovery (Joshi and Aoki 2014) and economic development (Karlsson and Dahlberg 2003). The importance of government actors in bolstering community social capital has been hinted at in a wide variety of geographic contexts. For example, Halseth and Ryser (2016) show social cohesion is critical in non-metropolitan areas, but its effectiveness is often limited without the assistance of local government. Similarly, for metropolitan communities, there appears to be a reciprocal relationship between urban governing regimes and formalised social capital-based civic participation networks (Hays and Kogl 2007; Musso and Weare 2017). Our data highlight the need for nuanced consideration of such findings, as it seems the capacity of local government to influence community social capital varies across place. As operationalised in our models, metropolitan governments tend to have higher aggregate capacity levels, but the productive value of that capacity is higher in non-metropolitan counties.

Though this research considers the role of place and social capital at the US county government level, the findings may also have applicability in a comparative context. There is evidence of a relationship between community social capital and the capacity of local government in many countries (Hooghe and Vanhoutte 2011; Parés et al. 2014). Differences across metropolitan and non-metropolitan communities – and their implications for social capital – are certainly not unique to the US (Park et al. 2012; Western et al. 2005). The South and non-South distinction used in this analysis *is* specific to the US, but most countries have some sort of regionalism shaped by each nation's unique social, political and institutional history (Boggs and Rantisi 2003; Crescenzi, Gagliardi, and Percoco 2013). To the extent that our findings show how social capital is shaped by place-based regional characteristics, there is a need to examine regional social capital variation in other countries. Social capital theory has long recognised the importance of region – indeed, Putnam et al. (1994)

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original study was based on differences between Northern and Southern Italy – but more work needs to be done in terms of quantifying these effects.

The data also show a need for more research on the role of differences in endowment levels and coefficient productive values across place. The characteristics of non-metropolitan (Fallah and Partridge 2007; Granovetter 1973) and non-South (Portes and Vickstrom 2011; Putnam 2001; Rupasingha et al., 2006) counties work to their advantage in generating higher mean social capital scores. But how place is defined can change the extent to which social capital variation can be explained by differences in community determinants. The decomposition models show levels of government expenditures are not related to differences in social capital levels across metropolitan status. But levels of government expenditures *do* vary in their ability to influence social capital index scores across region. At the same time, differences in the coefficient productive values for government expenditures seem to shape social capital at the metropolitan level, but not across region. Many of our other independent variables of interest show a similar pattern. The endowment levels and productive values of household income, racial diversity and income inequality are predictors of cross-group differences in social capital. But in many cases, their statistical significance changes across different definitions of place.

In some ways, our findings reinforce theories of place-based path dependency. Our data concur with literature suggesting a degree of social capital "lock-in" may occur in some locales. The models provide support for the idea that a community's tendency towards path dependency may be influenced by place-based factors like regional geography (Martin and Sunley 2006). The data support such narratives because they hint that community determinants can vary both by characteristic endowment levels and coefficient productive values across region and metropolitan status. Thus, to some extent, a community's social capital prosperity may be related to place luck (Reese and Ye 2011). But while these findings are interesting, it is important to note that further research is needed to see if they hold when examining other definitions of place. Within the US, a fruitful avenue for further research is applying this type of modelling to both to smaller (e.g. cities) and larger (e.g. other definitions of region, state-level data, etc.) units of analysis. And though we believe our findings are likely generalisable to places beyond the US, there is a need to see if the findings can be replicated via decomposition modelling with comparative data.

In summary, the use of social capital has become something of a "one size fits all" prescription that seeks to cure the community and economic development ailments of localities (Lovell 2009). Our data show that the relationship of government capacity to place is like other community-level social capital determinants. In aggregate, higher levels of county government capacity are linked to social higher capital, but both the endowment levels and productive values of expenditures vary by some immutable qualities of place. Ultimately, our findings show policy actors must be cognizant of the role of place in determining how community-level determinants might alter the effectiveness of social capital strategies.

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