Race- and Class-Based Inequality and Representation in Local Government

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1 Introduction

On August 9, 2014, Michael Brown, an unarmed 18-year old African American man, was fatally shot by Darren Wilson, a white police officer following a violent altercation on the streets of Ferguson, Missouri (Somashekhar and Kelly, 2014). While Ferguson authorities investigated the shooting, demonstrations against police brutality roiled the city. Black community leaders and civil rights activists charged that Brown’s death symbolized a broader pattern, in which Ferguson police routinely harassed – and occasionally brutalized – African American residents. Heavy-handed tactics by local police responding to the protests lent credence to these allegations, bringing widespread condemnation and eventually leading local authorities to cede responsibility to the Missouri State Highway Patrol (Reilly, 2015).

A March 2015 investigation by the United States Department of Justice cleared Wilson of civil rights violations in the shooting of Brown (Eckholm and Apuzzo, 2015). But the Department also found that the Ferguson Police Department and city administrators systematically discriminated against the city’s black residents. Indeed, while African Americans comprised only two-thirds of the city’s population, they accounted for 85 percent of traffic stops, 90 percent of tickets, 93 percent of arrests, and 88 percent of cases involving the use of police force (Apuzzo, 2015). Meanwhile, city officials imposed huge fines on black residents for minor violations, largely to pad the city’s coffers; and routinely circulated racist jokes on government email accounts (Bouie, 2015).

The tragic events in Ferguson – which sparked a contentious national discussion about race, class, and justice in the United States – raised grave questions about the quality of local democracy. Are local governments responsive to the preferences of their citizens – and, in particular, of disadvantaged and non-white citizens? Can local governing and electoral institutions enhance – or erode – the political power of poor and non-white Americans?

This paper provides a preliminary but unprecedented look at local government responsiveness, by combining data from Catalist – a commercial database with information on more than 260 million American adults – with information on the ideologies of local representatives. Of
critical importance, the Catalist data (unlike previous measures of local preferences) permit estimation of community preferences by race and wealth level. Leveraging these advances in “big data” analysis, we examine whether poor and non-white Americans receive unequal representation from local governments, and assess whether different electoral structures can alleviate any such inequalities.

Our findings, while preliminary, suggest that the concerns about the quality of local democracy raised by the Ferguson debacle are justified. Our results suggest that African Americans, Latinos, and poor citizens receive significantly less representation from local officials than do whites and more affluent Americans. While local electoral institutions - particularly the presence of partisan elections - may moderate these patterns, local politics are marked by striking racial and class inequities. Far from serving as a bulwark of democracy, local politics may reinforce disadvantages already borne by people of color and the poor.

2 The Need for Studies of Local Representation

Scholars have long been interested in the questions (1) whether elected officials are equally responsive to all their constituents and (2) whether institutions mitigate or exacerbate inequalities in representation (Truman, 1951; Schattschneider, 1960; Ferguson, 1995, e.g.). In recent years, researchers have increasingly focused on inequalities in representation based on wealth and race, generally finding that wealthier Americans and whites receive more representation from elected officials than less wealthy or non-white constituents, respectively (Gilens, 2005; Bartels, 2009; Rigby and Wright, 2013; Gilens and Page, 2014; Griffin and Newman, 2008; Hajnal, 2009; Hajnal and Lewis, 2003; Griffin and Newman, 2013). However, there is increasing evidence that institutions play an important role in determining the degree of both wealth-based and race-based inequities in representation, with some institutions reducing these disparities and others exacerbating them (Ellis, 2013; Flavin, 2014, 2015; Hajnal and Trounstine, 2010).

This impressive body of research has expanded our understanding of how American democ-
racy works, as well as when and why it fails to do so. To date, however, research has focused on identifying and explaining inequalities in representation in Congress and state governments, to the exclusion of local governments. To be sure, some scholars have argued that local governments should not be expected to be especially responsive to the ideological and partisan preferences of their constituents (Oliver, Ha, and Callen, 2012). In this view, the capacity of localities to respond to the preferences of their constituents is hemmed in by statutory and constitutional constraints on local discretion (Ladd and Yinger, 1989; Bailey and Rom, 2004, e.g.), as well as by economic imperatives that force all local governments to enact similar developmental policies (Peterson, 1981; Gerber and Hopkins, 2011). Some scholars also suggest that local politics revolve around the question of government performance rather than ideological and partisan differences, attenuating the significance of these cleavages (and the racial and economic disparities they frequently overlay) (Oliver, Ha, and Callen, 2012).

In truth, however, the main reason scholars have not studied inequities in local government responsiveness in detail is that the measurement obstacles to doing so are formidable. In particular, the absence of adequate measures of the ideologies and policy preferences of subgroups within local communities obstructs the study of local government responsiveness (Trounstine, 2010; Tausanovitch and Warshaw, 2014).

Existing surveys do not contain adequate sample sizes to estimate the distribution of preferences in large cities, not to mention smaller cities and towns (Trounstine 2010; 413-14). Alternative measures that have been employed as proxies of group interests – such as demographic indicators and presidential vote shares (Choi et al., 2008; Craw, 2010; Einstein and Kogan, 2015, e.g.) – are problematic. Demographic indicators are very noisy measures of preferences, in large part because the relationship between demographics and interests varies across geographic space. Presidential vote shares are also inadequate because presidential votes are often driven by short-term factors rather than durable ideological or programmatic commitments (Erikson, Wright, and McIver, 1993; Levendusky, Pope, and Jackman, 2008; Tausanovitch and Warshaw, 2013).
Indeed, it is fair to say that prior to Tausanovitch and Warshaw’s (2014) pioneering work, “there had been no comprehensive studies about whether city policies are actually responsive to the views of their citizens” – let alone whether and why cities were unequally responsive to different groups of citizens. Tausanovitch and Warshaw took a major step forward in the study of local government responsiveness by pooling several very large surveys in order to estimate citizen policy preferences in approximately 1,600 cities and towns, and evaluating how government outputs in these communities aligned with these preferences. Yet, while Tausanovitch and Warshaw’s impressive database provides aggregate estimates of city policy preferences, it is not sufficiently precise to calculate preferences for different racial and class groups within these communities.\(^1\) Moreover, Tausanovitch and Warshaw’s estimates are available only for communities with more than 25,000 residents, excluding thousands of smaller cities and towns. Consequently, our ability to identify inequities in local government responsiveness or determine whether institutions exacerbate or remediate such injustices remains limited.\(^2\)

The inability of scholars to study inequities in government responsiveness at the local level is a major obstacle to our understanding of the operation of American democracy. There are nearly 90,000 local governments in the United States, which employ 11 million workers, collect 25 percent of the nation’s tax revenues, and allocate many of the public goods that directly affect citizens on a daily basis (Einstein and Kogan, 2015). Local governments clearly play a central role in citizens’ lives, and there is growing evidence that they can be responsive to majority sentiment (Tausanovitch and Warshaw, 2014; Einstein and Kogan, 2015). However, as the case of Ferguson shows, local governments may also be completely unresponsive to – indeed, predatory toward – their most vulnerable citizens. Beyond such particular (though

\(^1\) Tausanovitch and Warshaw do provide estimates of preference heterogeneity, and break down preference estimates by political party, but only for municipalities with populations greater than 25,000. In any case, they do not currently break down preference (or variance) estimates by either race or class. See data available on their website, at [http://www.americanideologyproject.com](http://www.americanideologyproject.com).

\(^2\) Tausanovitch and Warshaw (2014) present evidence that institutions do not play a major role in mediating local government responsiveness to aggregate city policy preferences. But this leaves open the question whether local institutions influence the degree of inequality in responsiveness to the preferences of lower-income and non-white groups within local communities.
illuminating) anecdotes, though, we have no idea how well local governments represent particular groups of citizens, especially people of color and the poor.

At a broader level, our inability to study inequities in local government responsiveness hinders theory development and testing. At present we know little about whether and how institutions expand or constrict opportunities for poor and non-white Americans to wield political power. Governing institutions vary slowly or not at all at the national level and in only limited fashion at the state level (Trounstine, 2009). The limited variety of federal and state institutions circumscribes our ability to understand how institutional design enhances or erodes prospects for government receptiveness to the demands of people of color and the poor. There is much greater variety in local institutions (ICMA 2011; Tausanovitch and Warshaw 2014); yet the absence of granular preference data at the local level prevents researchers from exploiting this variation to study how institutions mediate government responsiveness to group demands.

2.1 Preference Homogeneity vs. Heterogeneity in Municipal Population

In many local communities, citizens likely have relatively homogeneous preferences. Because citizens can move freely across municipal borders, they may locate in municipalities where they get their preferred bundles of taxes and expenditures (Tiebout, 1956). This should be particularly true in metropolitan regions with large numbers of local governments where citizens have many choices where to live (Ostrom, Tiebout, and Warren, 1961; Ferreira and Gyourko, 2007).

As a practical matter, however, the Tiebout (1956) model may fail due to the myriad economic and personal costs associated with relocating. Consequently, as we show in the subsequent section, preference homogeneity is not true of all communities. Many are characterized by significant variation in preferences, driven in part by racial or class divides, or both. This contextual difference is critical for political representation. First of all, in com-
munities with preference heterogeneity grounded in either racial or class divides, the size of the ideologically distinctive racial or class group likely matters for representation. In democratic contexts, larger groups likely receive more representation, because elected officials have stronger incentives to cater to groups with more votes (all things being equal).

Second, and more importantly, institutions may matter more in communities with greater variation in preferences. In this environment, institutions can either suppress or give expression to such diversity. It is precisely in such municipalities where representative institutions mediate the complex task of translating mixed preferences into the selection of leadership and policy outcomes.

Our main argument is that the degree of preference heterogeneity conditions the importance of institutions in shaping local government responsiveness. When local preferences are homogeneous, the characteristics of local electoral and governing institutions probably make little difference. If preferences are relatively similar across different dimensions (partisanship, class, race, etc.), it does not necessarily matter whether some citizens turn out at lower rates, contact officials infrequently, or fail to elect descriptively-similar representatives to governing bodies. The selection of leadership and policies is likely to reflect the widespread agreement among residents.

When local preferences are heterogeneous, however, institutional design likely plays a central role in shaping government responsiveness, particularly to the preferences of disadvantaged groups. This is because institutions can either enhance or erode the political power of these groups by making them more or less visible and relevant to political elites (Ellis, 2013).

We expect local political institutions to shape representation at two distinct stages. At the electoral stage, institutions will affect the selection of leadership through the characteristics of elections that enhance or dampen participation and the degree to which they allow candidates to emerge successfully from distinctive communities of interest. At the governing stage, institutions will affect policy outcomes through the distribution of decision-making authority, which may allocate more or less power to leaders representing disadvantaged groups. Policy
outcomes (taxation, land-use, policing, housing, etc.) will depend on which leaders in government have pivotal roles in choosing among alternative options, and whether these leaders have incentives to represent diverse constituencies.

2.2 Institutional Design and Government Responsiveness

When preferences are heterogeneous the design of local institutions likely plays a central role in determining government responsiveness, particularly to historically disadvantaged groups. Our theoretical expectations are derived from James Madison's insights about the capacity of institutions to prevent majority factions from dominating public affairs in polities comprised of diverse interests. Under the US Constitution, Madison’s institutional remedies to protect minority interests include the separation of powers and federalism (see Federalist #10, 51). This design had the effect of enhancing a pluralism in which minority factions are not necessarily overruled by majoritarian sentiments, particularly when majoritarian policies do not advance a common good. The model deliberately relies on institutions to express and channel heterogeneous politics rather than allow majority factions to dominate, or to assume that leaders of virtue would consistently rule for the benefit of all.

In a similar way we seek to understand how institutions at the local level might advance the interests of groups that do not necessarily form a majority (or plurality) of voters. We make a key distinction between institutional designs oriented toward both wide participation in elections and governmental decision-making – what we call a Political Model – and those that prioritize government effectiveness – what we call a Professional Model. Although both designs are archetypes, they capture key features of many, if not most, of the municipalities in the United States.

Generally speaking the Political Model tends to support better representation of disadvantaged groups, while the Professional Model provides greater opportunities for advantaged groups to dominate the political process. The Political Model, as its name implies, supports the expression of political conflict among factional groups and the mobilization of their in-
terests by making politics easier to understand and less costly to engage in. In contrast, the Professional Model reflects efforts to insulate policy decisions from factional politics as way to promote efficient and effective municipal services for the broader polity. This depoliticized model makes politics less accessible, and thereby tends to benefit already-advantaged groups.

The Political Model is rooted in the mass politics of the 19th century, which challenged the elite status quo of the Founders. The extension of the franchise to property-less white men encouraged the formation of local parties that mobilized voters around candidates and issues framed by a party ticket. Intense partisan rivalries and electoral competition stimulated an environment of political bargaining in which disadvantaged groups won a share of decision-making power and economic resources. The diverse leadership across disparate urban sectors reflected a pluralism in which various subgroups had power to shape policy decisions (Dahl, 1961).

The Professional Model, in contrast, emerged from a reform movement in the early 20th century to challenge the Political Model (Bridges, 1997). Progressive reformers sought to thwart the corrupt politics of party machines and create efficient government, arguing that municipal policies and services should not reflect partisan loyalties but professional administration. By changing electoral and governing institutions (e.g., non-partisan elections, merit-based bureaucracy, non-elected executive administrators), reformers aimed to professionalize government and insulate it from partisan politics. In the larger municipalities where research has been conducted, the result of the reform movement has been to shift representation toward majority interests and away from narrower (e.g., minority) interests (Lineberry and Fowler, 1967; Karnig, 1976; Meier, Polinard, and Wrinkle, 2000), with the effects depending on the nature of the coalitions and issues (Trounstine and Valdini, 2008). This work has not been extended to smaller towns or examined the effect of heterogeneity on the responsiveness of local governments because the data have not been available. And yet over 50 million Americans live in towns of less than 25,000 residents.

Our expectation is that the Political and Professional models will generate different out-
comes in heterogeneous communities. Even in smaller towns where the scope of government is constrained (Oliver, Ha, and Callen, 2012), we expect the Political Model to provide better representation of minority and low-income interests compared to the Professional Model, which tends to advantage the majority white, middle-class groups. Table 1 illustrates specific institutional features of the Political versus the Professional model.

In this paper, we examine the role of electoral institutions in affecting whose preferences are (or are not) reflected in local government. (In subsequent work, we will extend our analysis to the role of governing institutions in affecting policy outcomes).

1. Scheduling: Elections concurrent with federal and state contests generate broader interest, especially among those less engaged with the political process (Anzia 2014; Hajnal and Lewis 2003). Moreover, when elections are concurrent there are greater efforts by parties and interest groups to mobilize non-affluent voters. These factors encourage greater participation by non-elites. Note, however, that we are still collecting the data on election timing in the communities we study; accordingly, this factor will be added to our analysis in a subsequent version of this paper.

2. Mode: Partisan elections are more comprehensible than nonpartisan elections, especially to those without extensive political knowledge (Schaffner, Streb, and Wright, 2001). Additionally, partisan elections may lead to greater mobilization efforts by political parties. These dynamics facilitate participation by non-elites (Schaffner and Streb, 2002). Research shows that partisan elections have higher and more representative turnout (Caren, 2007;
3. Design

This paper presents a first analysis of representation at the local level that relies on population-level data combined with other sources of data on electoral and governmental institutions and policy outcomes. In this section, we describe our approach to this study, including how we sampled communities and collected data on their populations and elected officials.

3.1 Sampling Towns and Cities

We begin our study with the ICMA’s 2011 Form of Government survey (the most recent such survey available). The Form of Government survey contains a large battery of items designed to measure - in considerable detail - the various electoral, legal, and institutional characteristics of local governments. This survey is distributed to the city or town clerk in all municipalities with a population over 2,500 and to all towns with populations under 2,500 which are included in the ICMA database. The response rate for the 2011 survey was 41%. Data from the Form of Government survey has been used extensively in research on local politics, most notably in Warshaw and Tausanovitch’s pioneering study of municipal representation.
Figure 1 shows the distribution of towns and cities according to their population. The figure includes a vertical reference line at 25,000, which is the cutoff used in the Warshaw and Tausanovitch study of representation. Notably, 79% of municipalities in the dataset have populations below 25,000. Creating measures of attitudes in jurisdictions this size has been nearly impossible, even with the innovative use of large-scale surveys.

We focus on municipalities with either mayor-council or council-manager forms of government, since such towns comprise over 90% of those in the ICMA database. This means that we exclude town meeting forms of government. Table 2 provides summary statistics about the towns and cities in the ICMA database (our sampling frame) as well as information about those towns and cities we sampled. A major aim of this study is to understand the effects of different types of electoral and governing laws on responsiveness in local government. Notably, many of these laws tend to co-exist together. For example, and consistent with the Professional Model archetype, municipalities with council-manager forms of government also tend to have non-partisan elections and at-large districts. In fact, that configuration accounts
Table 2: Description of Towns and Cities in the ICMA Database and Our Sample

<table>
<thead>
<tr>
<th>Type</th>
<th>Full ICMA Sample</th>
<th>Stratified Sub-sample</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form of Government</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mayor-Council</td>
<td>36%</td>
<td>51%</td>
</tr>
<tr>
<td>Council-manager</td>
<td>64%</td>
<td>49%</td>
</tr>
<tr>
<td><strong>Average size of council</strong></td>
<td>6.3</td>
<td>6.8</td>
</tr>
<tr>
<td><strong>Median size of council</strong></td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td><strong>Electoral Rules</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-partisan elections</td>
<td>80%</td>
<td>53%</td>
</tr>
<tr>
<td>Council elected by districts</td>
<td>17%</td>
<td>35%</td>
</tr>
<tr>
<td>Council elected at-large</td>
<td>64%</td>
<td>33%</td>
</tr>
<tr>
<td>Mixed at-large and districts</td>
<td>19%</td>
<td>32%</td>
</tr>
</tbody>
</table>

Note: First column of entries are those for the sampling frame for this paper. The second set of entries are those for our stratified random sample of towns and cities for analysis in this paper.

for 39% of all municipalities. Fortunately, however, there is some co-variance in laws.

To ensure that we had sufficient power to understand the unique contribution of each of these laws on local representation, we utilized a stratified sample of towns and cities from the ICMA database. Specifically, we stratified by the form of government (Mayor-Council or Council-Manager), the type of ballot (partisan or non-partisan), and the type of jurisdictions (at-large, districts, or both). This gave us twelve strata in all, and we generated a sample to ensure at least 50 municipalities are selected from each of these strata. Overall, our sample was of 583 towns and cities across the United States. However, our effective N for this study is smaller (449 communities) once we trimmed communities where we could not collect sufficient information on the elected officials (see below).

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3Council-manager governments with partisan elections and both at-large and district jurisdictions were the least populated strata. There were only 33 municipalities in that strata. We will included all municipalities in that strata. All other strata included at least 60 observations.
4 Measuring Representation in Local Politics

In this paper, we seek to understand what types of individuals are elected to office in local elections. In subsequent papers, we will examine the second stage of representation – what types of policies different municipalities enact. In conducting the first part of this analysis, we seek to understand to what extent people are able to elect officials whose political preferences reflect those of the population and key subgroups. In other words, to what extent do constituents in different types of cities and towns elect city councilors who reflect their own political predispositions?

4.1 Measuring Constituent Ideology

Until recently, comprehensive large-N studies of local representation have been challenging due to the difficulty of measuring constituent preferences at low levels of aggregation. However, the increasing availability of large-N surveys and the development of MRP techniques have made it possible to generate estimates of constituent preferences for a much larger number of cities. These innovative approaches have yielded important recent work on representation in municipalities of 25,000 or more people.

As noted earlier, we seek to understand not just whether representation occurs at an aggregate level, but how electoral and governing institutions affect who gets represented, especially in heterogeneous communities. Since such an investigation requires ideological estimates for subpopulations within sparsely populated jurisdictions, the MRP approach will not suffice. Therefore, we turn to data available from the voter file firm Catalist. Catalist is a private political data vendor that sells detailed voter information to candidates and interest groups. The full Catalist database is comprised of detailed records of more than 265 million American adults. The Catalist database begins with voter registration data from all states and counties, which is cleaned and standardized. Then, Catalist appends hundreds of variables to each record. Using registration addresses, Catalist appends Census data describing the characteristics of the neighborhood in which each individual resides. Catalist also contracts
with other data vendors to incorporate data on the consumer habits of each household. Finally, Catalist generates an array of imputed variables from the other variables it has gathered, validating its imputation models against survey data that has been merged into its database and matched with relevant records. See Hersh (2015) for a detailed explanation of the Catalist data.

While Catalist was originally designed for electioneering purposes, Catalist data are also available to academic researchers via subscription (academic users do not have access to identifying information such as individuals’ names or addresses). This dataset has several features that make it especially useful for understanding how sub-constituencies are represented at the local level. First, Catalist includes estimates of each individual’s wealth and income. The household wealth and income measures are composite variables using a group of other indicators of consumer behavior gathered by InfoUSA, a marketing data vendor. In essence, the composite measure of wealth estimates household wealth based on individuals’ consumption of luxury goods such as expensive watches, boats, automobiles, and homes. The income measure is estimated based on a series of regressions using a combination of numerous consumer variables from InfoUSA and data from the Census.

Catalist also includes an estimate of each individual’s racial and ethnic identity (except in states where this information is collected when people register to vote, in which case it is not an estimate). In areas where the race and ethnicity of individuals is not collected by registration files, Catalist uses a combination of information based on names and local racial/ethnic context to make a prediction about the individual’s race or ethnicity. Fraga (2015) matched a large-N survey to the Catalist database to examine the validity of the Catalist race/ethnicity predictions. He finds that Catalist correctly coded the race/ethnicity of survey respondents 91.4% of the time. The success rate was highest for whites (99.1%), and somewhat less reliable for Blacks (75%), Latinos (66%) and Asians (61%).  

*Catalist is presently unveiling a new race prediction model that vastly improves the predictive success for minority groups (Blacks at 85%, Latinos at 81%, and Asians at 79%). We expect this new model will be available when we begin this project.*
measurement error will mean our measures of the amount of inter-racial group heterogeneity will likely be more conservative than reality.

Most importantly, Catalist also includes an estimate of each individual’s ideology. While the details of the model used to estimate individual ideology are proprietary, we know that the model is built as a series of linear regressions using variables from the database to predict the values of a liberal/conservative ideology index, with the index based on a wide range of questions selected from national polls and merged into the database. Catalist’s individual ideology scores have a value between 0 and 100, with 0 being the most conservative and 100 being the most liberal. Catalist has performed a validation of its ideology model and found that it predicts actual issue positions taken by individuals with a reliability of .67. However, we conduct two validations of our own which show that at the individual level these ideology estimates correlate quite highly ($r = .81$) with the expressed voting patterns of elected officials. See the Appendix for more details on this validation.

Importantly, most Americans receive both an ideological prediction and an estimate regarding their wealth, income, and race or ethnicity. Catalist has an ideology prediction for more than 99% of the more than 290 million adults in its database. Wealth and income predictions are somewhat less complete, but still, this information exists for 82.4% of individuals tracked by Catalist. A race prediction is made for 97% of individuals in the Catalist database. Thus, the vast majority of individuals have records for ideology, wealth/income, and race.

Since this information exists at the population level, we can easily create estimates of ideology by different wealth, income, or racial and ethnic groups, even in relatively small jurisdictions. The fact that we are using population data also makes it easy to create detailed measures of variance at the local level as well.

Using Catalist’s online data interface, we constructed measures to represent the ideologies of different racial and class groups within each community. Within the online interface, it is possible to construct and download data tables cross-tabulating variables of choice at the desired level of aggregation (by state, county, municipality, census block, and so forth). Thus,
for each community in our stratified sample, we downloaded separate data tables tabulating (1) the distribution of ideology over each racial group and (2) the distribution of ideology over each wealth category. These data enable us to construct various measures of the ideologies of various racial and class groups within each community.

4.2 Measuring Office-Holder Ideology

However, assessment of representation in local government also requires empirical measures of the ideologies of local representatives. To accomplish this task, we take advantage of another feature of the Catalist subscription – the ability to match lists of individuals into their database. Specifically, the academic subscription allows us to upload a list of names and addresses into Catalist. Catalist then matches those individuals into its database and creates a field in the on-line interface indicating which people were from our list. In short, this feature allows us to extract Catalist’s data – including the ideological prediction – for each individual on our list. With this information in hand, we can construct various measures of the ideology of each city council, which we can then compare with the ideology measures of the racial and class groups within each community.

We developed a standardized search protocol to acquire identifying information (names, zip codes, and street addresses) for city councilors, combining searches of local government websites, local property records, state campaign finance records, and internet 'white pages'. Using this procedure, we were able to recover at least the name and zip code for nearly all of the councilors in the towns and cities from our sample. For a majority of councilors, we were also able to find a street address. With this information, we were able to successfully match 85% of all councilors in the towns and cities from our database into Catalist. In all, this amounts to 3,365 councilors and mayors across 540 towns and cities. Notably, these councilors are overwhelmingly male (74%), white (91%), and relatively wealthy (35% have family incomes over $100,000). These basic facts provide a clear indication that many councilors differ in important descriptive respects from many of their constituents; and point to
the possibility of slippages in substantive representation between councilors and at least some of their constituents.

Even modest amounts of missing data could lead to an inaccurate picture of the ideological distribution or central tendency of a town or city council. Accordingly, in the analysis that follows, we only examine the 449 towns and cities where we were able to extract ideological predictions for at least two-thirds of the members of the council.

4.3 Operationalizing Representation

With the information we have acquired, we construct two measures of representation:

1. **Distance in means.** One of the most fundamental measures of representation is simply a comparison of how far the mean (or median) member of an elected body is from the mean member of the group that the body is meant to represent (cite Achen).\(^5\) Accordingly our first measure is simply the absolute difference in the mean ideology of the constituent group of interest (e.g. a particular racial or wealth group) and the mean member of the council. As this difference gets smaller, the group can expect to receive more representation from the council.

2. **Overlap in distributions.** A second standard for a democratic body is to reflect not just the central tendency of the population that elects it, but also the general shape of that distribution. For example, if a town includes two distinct ideological groups (e.g. a bimodal distribution), then a representative body should also reflect this distribution.

For this operationalization we rely on the Bhattacharyya coefficient, which provides a measure of the degree of similarity of two discrete distributions (Aherne, Thacker, and Rockett, 1998). While not previously used as a measure of representation (at least to our knowledge), the Bhattacharyya coefficient is an intuitive way of thinking about representation. After all, our elected bodies are supposed to reflect the views of the people they represent.

\(^5\)We present the analysis using the distance between means, but using medians does not significantly alter the results.
Sometimes, a comparison of the mean citizen to the mean elected official will obscure important ways in which such reflection is lacking. The most simple example of this would be a case in which a unimodal distribution of citizens is represented by a bimodal distribution of elected officials (the United States Congress comes to mind). In such a situation, the median elected official may not be particularly distant from the median citizen, but the distribution of views in the governing body would not be very reflective of the distribution of views in the electorate.

The Bhattacharyya coefficient ranges from 0 to 1, where a value of 0 indicates no overlap between the two distributions and a value of 1 indicates complete overlap.\textsuperscript{6} Figure 2 presents an example of how this coefficient captures extreme cases of empirical distributions that exist in our data. The top set of towns and cities are examples of nearly complete overlap between the distribution of town/city councilors and the distribution of low income citizens on the ideology scale. The bottom row shows examples where the councilors have very little overlap with low income citizens. These low levels of overlap are reflected by very low Bhattacharyya coefficients (.112 or lower). In these cases, the council appears to offer little representation for the poorest citizens – in each case, the distribution of councilors is far more conservative than the distribution of low income citizens.

To be sure, these are not the only meaningful operational definitions of representation (and, in future work, we will incorporate additional measures). However, these provide a useful starting point for assessing the degree to which the ideologies of constituents correspond with those of local elected officials.

\textsuperscript{6}The Bhattacharyya coefficient has additional favorable qualities for this particular data. For example, all of our ideology data are distributed into bins with a width of 5 points (on the 100 point ideological scale). The Bhattacharyya coefficient is particularly useful for discrete distributions such as ours.
Figure 2: Highest and Lowest Overlapping Distributions Between Low Wealth Citizens and Councilors

Note: Plot compares distributions of low income citizens and town/city councilors in the three communities where the Bhattacharyya coefficients are the highest and three communities where they are the lowest. Bhattacharyya coefficient values listed in parentheses.
5 Heterogeneity in Local Communities

Our theory stipulates that electoral structures will be more important in communities that hold more heterogeneous viewpoints. But to what extent does ideological heterogeneity exist in America’s towns and cities? To answer this question, we calculated the standard deviation of ideology in each of the 449 municipalities in our study. As a benchmark, we include a vertical reference line at 14.68, which is the standard deviation for the ideology measure among the population of American adults. Notably, many of the towns and cities in our sample exhibit quite a bit of heterogeneity in how ideology is distributed among their populations. In fact, one-quarter of these municipalities have more variance in their ideological distributions than the U.S. population as a whole. And the average town in our sample has an ideological distribution with greater variance than the populations of 21 states. This is particularly remarkable given that the median town in our sample has a population of 11,237, and several communities have only a few hundred citizens.

In the following section, we examine two of the primary causes of ideological heterogeneity – race and economic status. However, we first examine the extent to which ideological heterogeneity makes it more difficult for elected bodies to reflect the views of the population. Figure 4 shows the relationship between the amount of variance in ideology among the adult population in a town/city and the extent to which citizens’ views are well-reflected by the councilors elected by that population. The left-hand plot in this figure uses the distance between the average citizen and the average councilor as the measure of representation – so lower values on this metric reflect more representation. The right-hand figure in the plot uses the Bhattacharyya coefficient capturing the amount of overlap between the distribution of adults and the distribution of councilors along the ideological scale – thus, higher values in this plot relate to more representation.

While the patterns in these plots are not perfectly linear, they do indicate that, generally speaking, as communities become more heterogeneous, it becomes less likely that their elected bodies will be a good reflection of the views of the population. In the left-hand plot, the least
Figure 3: Ideological Variance in Communities Sampled

![Graph showing ideological variance in communities sampled]
Figure 4: Heterogeneity and Representation in Local Communities

Note: Plot shows local polynomial fit with a bandwidth of 2.5. Shaded area represents 95% confidence intervals. Plots are weighted to account for stratified sampling design.

Diverse communities had an average distance that was about half as large as that for the most diverse communities and the amount of overlap between citizens and elected officials dropped by more than .1 on the 0 to 1 scale. Thus, heterogeneity matters for representation, and in the following section we examine how inequality-driven heterogeneity is particularly problematic for how disadvantaged groups received representation at the local level.

6 Inequalities in Local Representation

Now that we have demonstrated that there is a great deal of heterogeneity in many American communities, we turn our investigation to examining whether representation in American communities is conditioned by citizens’ race or economic status. For each municipality, we extracted from Catalist the ideological prediction for each individual in a particular racial or wealth group. This allowed us to calculate the ideology of the mean member of each of these groups as well as the ideological distribution among each group. We could then compare these means/distributions to the same statistics for the elected members of the city/town council.
Figure 5 plots the amount of representation whites, blacks, and latinos receive based on how much of a community’s population each group comprises. The top row of plots shows the distance between the mean member of each group and the mean member of the town/city council. Thus, smaller values on the y-axis denote more representation since that means the group’s mean member is closer to the council’s mean member. The bottom row of plots shoes the Bhattacharyya coefficient indicating the amount of overlap between each racial group’s ideological distribution and the ideological distribution of the town/city council. Higher values on the y-axis of these plots denote more representation.

Two patterns are clear in this graphic. First, on average, whites receive more representation from their town and city councils than blacks or Latinos. For example, in communities where blacks make up less than half of the population, the mean black member of the community is nearly 20-points (on the 100 point ideological scale) away from the mean councilor. By comparison, in communities where whites make up less than half of the population, the mean white member of the community is less than 10 points away from the mean councilor. On the distance metric, Latinos generally receive less representation than whites, but more than blacks.

A second notable pattern from the graphic is the way in which population share does (or does not) relate to representation for each group. Remarkably, the amount of representation that whites have on the council is almost entirely unrelated to how much of the community’s population they account for. Whites get about as much representation when they make up 20% of the population as they do when they make up 90% of the community.

A more nuanced pattern arises for the minority groups. For example, the top middle plot shows that blacks are fairly distant from the median councilor in a town/city until they begin to account for more than half of the community’s population. Only at that threshold do they start to have more representation on the council. The same general pattern holds for Latinos.

The bottom plots show the same general pattern. Whites consistently enjoy relatively high levels of ideological overlap with the council regardless of their share of the population (with a
Figure 5: Relationship Between Racial Group Size and Representation in American Communities

Distance between means

Overlap in Distributions

Note: Plot shows local polynomial fit with a bandwidth of .2. Shaded area represents 95% confidence intervals. Plots are weighted to account for stratified sampling design.
Bhattacharyya coefficient above .6). The black community’s overlap with the council is much lower and only only begins to climb once blacks account for at least a third of the town/city’s population. But when blacks make up 40% or less of the population, their overlap with the council is just .4. The pattern for Latinos is similar as well. They receive somewhat more representation than blacks, but less than whites, and their overlap with the council begins to increase once they make up 40% of the town’s population.

Thus, Figure 5 presents contrasting patterns of local representation for whites versus blacks and Latinos. While whites appear to receive good representation on city/town councils regardless of their relative size in the community, representation for blacks and Latinos is far more conditional.

The second dynamic of interest for this paper is economic inequality and local representation. Figure 6 is similar to the previous figure, but this time we show the amount of representation received by low, middle, and high wealth groups. The patterns in these graphs again suggest that representation is highly conditional for the less advantaged and mostly unconditional for those with more resources. For the low wealth group, increasing representation is monotonically related to increasing size among the population (the top left and bottom left plots). For the views of the poor to be reflected on the council, they must make up a large share of the population in the town or city.

The patterns are far less pronounced – in fact, nearly flat – for the middle and high wealth groups. When looking at the distance between means metric on the top plot, the wealthy appear to receive somewhat more representation when they make up less of the population (as they do in most towns and cities we examine). When looking at the overlap of distributions metric on the bottom row, similar patterns are present. The poor have much less overlap with the city/town council and that overlap only increases as their share of the population increases. The middle and high wealth groups, on the other hand, have higher levels of overlap with the council, and that overlap is almost entirely independent of how much of the population they comprise. For the poor to reach the equitable levels of representation with middle- and upper-
Figure 6: Relationship Between Wealth Group Size and Representation in American Communities

Distance between means

Overlap in Distributions

Note: Low wealth includes individuals with an estimated household wealth of $30,000 or less. High wealth includes individuals with an estimated household wealth greater than $300,000. The medium wealth category includes all individuals in between those extremes. Plot shows local polynomial fit with a bandwidth of .2. Shaded area represents 95% confidence intervals. Plots are weighted to account for stratified sampling design.
wealth groups, they must make up at least two-thirds of a community’s population.

6.1 Do Electoral Rules Matter?

So far, we have documented a significant pattern for representation in local government – that the advantaged receive unconditional representation while representation of the disadvantaged is contingent on whether they have the numbers to make their influence felt. But to what extent do electoral rules mitigate (or exacerbate) these inequalities?

Our expectation is that the partisan ballot and district (rather than at-large) elections will help to give more voice to minorities and the poor. (We also expect that election timing is an important factor, and we will incorporate this variable into a future iteration of this analysis). To examine whether this is the case, we estimate a series of regression models. Since we are interested in discrepancies in representation in each community, we create three separate dependent variables to estimate such discrepancies. These variables capture the advantage whites have over blacks in terms of proximity to the mean councilor, the advantage whites have over Latinos on the same metric, and the advantage that the wealthy have over the poor in terms of proximity. For example, if a community received a 5 on the first measure, that would indicate that the mean white citizen in a community is 5 points closer to the mean councilor than the mean black citizen in that community.

Our key independent variables of interest are indicators for whether the municipality holds partisan (versus nonpartisan) elections for city council and whether the town/city uses at-large seats, district seats, or a mixture of both (the latter is the baseline group). While nonpartisan elections and at-large seats are far more common than the alternatives in the population of towns and cities, our stratified sampling design means that our sample is roughly equally distributed across these different election types (see Table 2). This allows us to more efficiently test whether these laws matter for conditioning representation.

Of course, as we have shown above, the amount of representation that minorities and the poor receive on city/town councils is clearly related to the prevalence of those groups in
the communities. Thus, in the race-oriented models, we control for the population advantage/disadvantage that whites have over the minority group. For example, if whites make up 80% of a town’s population and blacks make up 20%, then whites would have a net population advantage of 60%. We construct a similar measure in the model examining economic groups; in that case, the variable is the population advantage/disadvantage that the wealthy have over the poor.

Finally, it’s important to take into account the extent to which advantaged groups hold distinct ideologies from disadvantaged groups in these communities. This is the notion of homogeneity and heterogeneity that we introduced in our theoretical discussion. For example, if the average white and average black citizen take on the same ideology, then blacks will receive the same representation as whites simply by virtue of being in agreement with whites (CITE). However, as these groups have increasingly dissimilar ideologies, there is far more opportunity for there to be inequalities in terms of who is represented. Our theory suggests that electoral institutions might be particularly important not in homogeneous communities where different groups are in agreement, but in heterogeneous areas, where different racial or economic groups hold different ideological viewpoints. Thus, in the analysis that follows, we examine the role of electoral institutions among all towns and cities, but we also test whether those institutions are more important in heterogeneous communities.

Table 3 presents the results from OLS regression models testing the effects of these electoral rules on the advantage that whites have over blacks and Latinos in terms of proximity to the mean councilor. First, note that the composition of the population is strongly related to the relative advantage that whites have over blacks and Latinos in terms of representation. The intercept for the first model indicates that when whites and blacks comprise an equal share of the population in a town/city with nonpartisan elections and a mix of at-large and district seats, whites are still nearly 5 points closer to the mean councilor than blacks. Thus, blacks have to achieve a population advantage over whites just to achieve parity in terms of representation.
Table 3: Effect of Electoral Laws on Representation Advantage of Whites over Minorities

<table>
<thead>
<tr>
<th></th>
<th>White Advantage over Blacks</th>
<th></th>
<th>White Advantage over Latinos</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All towns</td>
<td>Homogeneous</td>
<td>Heterogeneous</td>
<td>All towns</td>
</tr>
<tr>
<td>White pop.</td>
<td>4.0379**</td>
<td>3.6367</td>
<td>7.5595**</td>
<td>3.2452**</td>
</tr>
<tr>
<td>advantage</td>
<td>(1.3842)</td>
<td>(2.0960)</td>
<td>(1.5959)</td>
<td>(1.0416)</td>
</tr>
<tr>
<td>Partisan</td>
<td>-2.2877**</td>
<td>-0.8262</td>
<td>-2.3971*</td>
<td>-1.6880**</td>
</tr>
<tr>
<td>ballot</td>
<td>(0.8203)</td>
<td>(0.8272)</td>
<td>(1.1250)</td>
<td>(0.5114)</td>
</tr>
<tr>
<td>District</td>
<td>0.8916</td>
<td>1.2205</td>
<td>1.0032</td>
<td>0.2505</td>
</tr>
<tr>
<td>seats</td>
<td>(0.9920)</td>
<td>(1.0319)</td>
<td>(1.3190)</td>
<td>(0.6132)</td>
</tr>
<tr>
<td>At large</td>
<td>0.4530</td>
<td>0.8716</td>
<td>1.0702</td>
<td>0.0778</td>
</tr>
<tr>
<td>seats</td>
<td>(1.0161)</td>
<td>(1.0220)</td>
<td>(1.3954)</td>
<td>(0.6290)</td>
</tr>
<tr>
<td>Intercept</td>
<td>4.6955**</td>
<td>-0.2365</td>
<td>5.5241**</td>
<td>1.8094</td>
</tr>
<tr>
<td></td>
<td>(1.3282)</td>
<td>(2.0097)</td>
<td>(1.5367)</td>
<td>(0.9633)</td>
</tr>
<tr>
<td>R²</td>
<td>0.0416</td>
<td>0.0297</td>
<td>0.1205</td>
<td>0.0495</td>
</tr>
<tr>
<td>N</td>
<td>389</td>
<td>177</td>
<td>212</td>
<td>377</td>
</tr>
</tbody>
</table>

Note: * p < .05, ** p < .01.

Notably, the only electoral rule that seems to have a significant effect in any of these models is the partisan ballot. Towns/cities who elect councilors on a partisan ballot have an average white advantage over blacks that is 2.3 points smaller than in towns/cities where elections are nonpartisan. The size of this effect means that in a community with equal proportions of whites and blacks, the white advantage in terms of proximity to the mean councilor would be cut in half.

The second and third models in Table 3 separate our sample of towns based on the extent to which whites and blacks hold distinct ideologies. The “homogenous” model includes communities where the mean black citizen and the mean white citizen are within 10 points of each other (on the 100 point ideological scale). The “heterogeneous” model includes communities where the mean black and mean white citizen differ by more than 10 points. Notably, the coefficient for the partisan ballot is less than 1 (and not statistically significant) for the “homogeneous” communities while it is -2.4 in the “heterogeneous” model. The latter effect is statistically significant, and again indicates that in a town where blacks and whites have parity in the population, a partisan ballot will cut the white advantage in representation by about half.

We see similar patterns when looking at the white advantage over Latinos. Once again,
Table 4 presents the results from our model examining the extent to which the wealthiest citizens in a community have an advantage in representation over the poorest group. As with the previous models, an important factor is the extent to which the rich have a population advantage over the poor. This variable is statistically significant and strong in both the full model and the model that focuses on the heterogeneous communities. However, it is worth noting that in most communities, the rich do not have a population advantage over the poor. In fact, this is only the case in about one-fourth of the towns and cities in our study.

The intercepts in these models provide insight into the extent to which the rich hold an advantage over the poor. The presence of a partisan ballot in such a community will reduce the white advantage in representation by 4 points. Unfortunately, we have only 60 communities in our sample where the mean Latino citizen is more than 10 points away from the mean white citizen. Nevertheless, the effect of the partisan ballot in this small subsample of towns is large and statistically significant.
advantage in representation over the poor when the two groups make up equal shares of the population. When looking at all of the towns, the rich are about 4 points closer to the average councilor in when they make up an equal portion of the population as the poor. But in communities where the rich and poor have very distinct ideologies, this advantage grows to about 7.5 points.

The coefficients for the electoral law indicators are mostly small and lack statistical significance in all of the models. This indicates that when it comes to economic inequality in local representation, a partisan ballot or district-based seats appear to offer little relief for the disadvantages faced by the poor.

7 Conclusion

While a significant body of scholarship has focused on the effects of racial and economic inequality on representation at the federal and state level, there has been very little systematic research on this question in the context of local politics. Previous studies have examined the relationship between aggregated constituent preferences and policymaking at the local level, finding that aggregated constituent preferences align fairly closely with public policy outputs. However, due to data limitations these studies are unable to determine whether there are systematic racial and/or class inequalities in representation in local politics. In light of the serious racial and class conflicts that have arisen in communities throughout the nation, this represents a major gap in our understanding - as well as an obstacle to practical efforts to reduce tensions and ensure justice for disadvantaged groups.

In this analysis, we examine how democracy works at the most local level - in towns with fewer than 25,000 residents, where nearly one in six Americans live. Our purpose is to understand the representational links between citizens and local elected officials, with a particular focus on whether these relationships are inflected by racial or class biases. (A subsequent paper will examine the types of policies different communities enact). We also investigate whether local electoral institutions mediate the relationship between race, income, and repre-
sentation, hypothesizing that institutional forms that approximate the Political Model (and thus facilitate engagement and participation by disadvantaged communities) attenuate race- and income-based inequalities relative to those that more closely resemble the Professional Model.

We provide an unprecedented look at (racial and class inequalities in) representation in local government, taking advantage of new data from Catalist. Using Catalist, we are able to measure the ideological proximity of elected officials and local residents, and examine variation in access to representation across different racial and class groups. We also looked at how institutional variation in election scheduling (concurrent or non-concurrent with federal elections), election format (partisan vs. non-partisan), and district type (ward vs. at-large) influenced the degree of inequality in representation across racial and class groups.

Our findings demonstrate clear race- and class-based inequities in representation in local politics. First, on average, whites tend to receive more representation from their town and city councils than do blacks or Latinos. Whites are also advantaged insofar as the representation they receive is largely invariant to their share of the community population. The amount of representation that whites enjoy on local councils is almost entirely unrelated to how much of the community’s population they account for. In contrast, blacks and Latinos need to comprise a much higher proportion of the town population (above a third) before they begin to enjoy a comparable degree of representation. The implications of this dynamic are regrettably recognizable in a town like Ferguson, Missouri, with a population of just over 21,000, where the views of a majority of black residents were poorly represented by the town council, most of which were white.

We observe similar patterns in the relationship between class and representation. Residents with high or middle wealth receive a very similar amount of representation regardless of their proportion in the community’s population. In contrast, representation of lower income residents is highly conditional their share of the population of the community. This is significant because the rich typically reflect a relatively small share of the population in
most towns, rarely exceeding the share comprised of the poor. These differences are especially salient under conditions of preference heterogeneity, in which the views of the wealthy and the poor (or other groups) diverge significantly.

We also provide a preliminary test of the hypothesis that election rules that more closely resemble the Political Model reduce race- and class-based inequalities in representation in local politics. (Future work will consider the timing of elections, as well as the power allocated to executives who are either elected or appointed.) This study demonstrates that one aspect of the Political Model, the partisan ballot, does in fact make a difference in reducing these inequities. While this effect has been demonstrated at large city level, we are able to show a similar effect in small towns. This finding has major implications for local democracy. 80 percent of towns with under 25,000 residents in the ICMA sample have nonpartisan ballots, which means that inequality in representation could be significantly reduced if more towns switched to partisan ballots. However, with respect to other institutional rules, such as the district elections, we did not find a significant relationship to inequality.

This analysis enters a contentious debate about representation at the local level. Some have argued that what happens at the local level does not matter much because the limited legal authority of local governments restricts opportunities for redistribution programs and services that could address issues of inequality. Others claim that most small towns are homogenous because people tend to move to places where they have preferences for bundle of services at particular costs. Our findings, while preliminary, raise serious questions about these claims, pointing both to the high stakes of local politics and to the serious inequities in representation that can occur there. While we find some evidence that local institutional forms can moderate unequal democracy in local politics, our research suggests that much more needs to be done to ensure that the voices of all citizens are heard in their communities.
Appendix: Validating Catalist’s Ideology Prediction

This project relies heavily on Catalist’s estimate of ideology for constructing both constituent-level and office holder ideology scores. While Catalist has conducted several of its own validation exercises, which have produced convincing results, we undertake two validation analyses independently to further verify the utility of these estimates for our study.

For our first validation analysis, we take advantage of the municipal ideological estimates created by Tausanovitch and Warshaw (2013). These ideological estimates are based on Multi-level Regression and Poststratification (MRP), making use of large-scale surveys totalling hundreds of thousands of Americans over an 11-year period. For this comparison, we calculate the mean ideology from Catalist for 1,149 municipalities included in the Tausanovitch and Warshaw (2013) database. The results of this validation appear on the left-hand panel of Figure 7. Note that the observations cluster close to the regression line and the two measures are correlated at .82, suggesting a close correspondence between the two aggregated ideology measures.

The first validation is useful for demonstrating whether the Catalist measure provides an accurate estimate of constituent opinion. However, we also want to understand how the estimates perform at the individual-level, since we intend on using these measures to study the ideologies of elected officials. Thus, for our second validation analysis, we take advantage of the ability to match lists of individuals to the Catalist database using the individuals’ home addresses. In many states, it is relatively easy to find the addresses of state legislators. Ultimately, we were able to successfully match 792 state legislators (from across 34 states) into the Catalist database in order to extract Catalist’s ideological estimates for those individuals. The data we use to validate the Catalist ideology estimates for this group come from Shor and McCarty (2011), who scale state legislative roll call votes to create measures of ideology for state legislators. Thus, for each of the 792 state legislators, we have a measure of Catalist’s estimate of the individual’s ideology based on their model, and a measure of the ideological disposition of the legislator’s roll call voting in the legislature.
The results of this second validation appear in the right-hand panel of Figure 7. Even at the individual level, there is a strong relationship between a legislator’s roll call voting behavior and Catalist’s prediction about their ideology. Indeed, the measures are correlated at .81.

Figure 7: Validating the Catalist Ideology Model

Overall, the results from these validation tests indicate that the Catalist ideology measure does appear to be strongly related to individuals’ true ideological predispositions. This is particularly valuable since the Catalist measure is available for such a large number of American adults, allowing for the granular analyses we will be conducting at low levels of aggregation for this project.
References


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