Living Apart: The Role of Public Spending in Metropolitan Area Segregation

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Abstract: Evidence in support of Tiebout’s (1956) thesis that households sort on the basis of public goods and taxation bundles has been mixed, but scholars agree that sorting along racial lines remains a prominent feature of the American local landscape. I argue that these two sorting processes are linked. When whites and nonwhites have divergent preferences over government policy, white avoidance of cities favoring nonwhite interests can result in segregation across city lines. I draw on two different public opinion surveys to provide evidence of racial preference divergence on local policies. Then, I show that city expenditures favoring nonwhite preferences can be used to explain aggregate metropolitan area segregation patterns.
In 1956, Tiebout famously claimed that residents vote-with-their-feet to find the community which offers their ideal bundle of benefits and taxation, generating an efficient market for the pricing of public goods. Since he wrote, Tiebout’s elegant argument has anchored the study of the relationship between household sorting and local public goods.

Economists and Sociologists have devoted a great deal of attention to uncovering preferences surrounding household sorting and residential choices. Although the evidence in favor of Tiebout, and the role that public goods play in sorting has been quite mixed (see for example Rhode and Strumpf 2003 versus Banzhaf and Walsh 2008, or Oates 2006 for an overview), household sorting along *racial* lines remains a prominent feature of the residential landscape (Charles 2003, Boustan 2011). In this paper, I provide evidence that these two types of sorting are linked. I argue that white preferences over public goods expenditures play a prominent role in dictating where they choose to live. These choices result in racial segregation.

White preferences over public goods expenditures could play a role in segregating communities in a number of ways, but the most straightforward connection is preference divergence. If whites either have or believe that they have divergent preferences over government policy relative to nonwhites, then city policies favoring nonwhite interests may incline whites to select different communities.¹ A large literature studying national level public opinion has provided evidence that white preferences over government expenditure and

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¹A second important way in which white preferences over public goods could play a role in segregation is through what Loury (2000) calls racial stigma. Whites may view nonwhites as lower quality neighbors with respect to the production of public goods. For instance, if whites believe that blacks are more prone to criminality, they may assume that public safety will be more expensive and/or difficult to secure in the presence of black neighbors. Avoiding black neighbors in order to ensure higher quality public goods could also generate segregation. Evidence supports this contention. For example Baum-Snow and Lutz (2011) find that influxes of black school children to white schools resulting from desegregation orders resulted in the suburbanization of white families.
activity differ significantly from the preferences of racial and ethnic minorities (Kinder and Winter 2001, Jackman 1994, Tate 1994, Kinder and Sanders 1996, Dawson 1994). A handful of studies at the local level have suggested similar patterns, but have been hampered by a lack of survey data (see Hajnal and Trounstine 2013 for an overview). In this paper, I draw on two different public opinion surveys to provide evidence of preference divergence on local policies. Then, I show that city expenditures favoring nonwhite preferences can be used to explain aggregate metropolitan area segregation patterns.

**Public opinion regarding local priorities**

At the national level the gap between white and nonwhite support for government programs like social services, education, and assistance to the poor, as well beliefs about the optimal size of government is persistent, systematic, and substantively large (Kinder and Winter 2001, Jackman 1994, Tate 1994, Kinder and Sanders 1996, Dawson 1994, Bowler and Segura 2011). A related, but distinct gap between high and low socio-economic status individuals also exists (Gilens 2005, Bartels 2008). Whites and the affluent tend to favor limited government while people of color and those of lower socio-economic status are more supportive of spending and intervention. In an overview of this large literature, Hutchings and Valentino (2004) explain, that the black/white opinion gap typically ranges from 35-50 points on matters dealing with race (like affirmative action and government aid to minorities), and more than 20
points on policies that are not explicitly racial, like government spending on welfare, social services, and education and the proper role/strength of government.²

At the local level a number of influential works have argued or implied that a lack of division may characterize municipal public opinion and policy. For instance, Peterson (1981) argues that “because cities have so few policy options” and because “individuals’ opinions toward the national parties dominate local political systems,” local political life is “one dimensional” (p112). In Peterson’s analysis municipal politics is “generally a quiet arena of decision making where political leaders can give reasoned attention to the longer range interests of the city, taken as a whole.” However, actually analyzing opinion divides at the local level has proven difficult due to a lack of data. That said, a persistent result is that racial divisions are paramount in local politics despite Peterson’s predictions. Large racial divides appear with regard to candidate choice (Hajnal 2009), satisfaction with city services (Van Ryzin et al 2004, Durand 1976), and trust in government (Rahn and Rudolph 2005, Marschall and Shah 2007). However, we do not yet have a good sense of whether or not these racial divisions generate differences in policy priorities.

To analyze public opinion on local policies ideally I would use a survey which sampled opinion across time and a range of cities. No existing dataset comes close to this model. Instead I make use of two surveys, the Knight-Ridder Foundation Community Indicators Survey and the General Social Survey (GSS) which offer different strengths.

² A number of scholars have shown that attitudes regarding race underlie opinions on “nonracial” policies too. See for example Federico and Luks (2005) Sears et al (1979); Kinder and Sears (1981)
I begin by analyzing a series of surveys carried out by Princeton Survey Research Associates for the John S. and James L. Knight Foundation. Conducted in 1999 and 2002, the surveys intended to document the quality of life in 26 communities where the Knight-Ridder Corporation published newspapers. The surveys of these communities were supplemented with data from a national random sample in both years and, in 2002, a survey of the regional area or a neighboring city for each of the main communities. A list of communities surveyed as well as the total number of respondents for each survey year is included in the appendix.

Although not specifically focused on political evaluation, the Knight survey included a set of questions that allow me to analyze the presence of racial divides in local public opinion. The questions assess the degree to which respondents view particular issues as important problems facing the community. Respondents were asked “Thinking about the (CITY) area...I’m going to read a list of problems some communities face. For each one, please tell me if it is a big problem, a small problem, or not a problem in the community where you live.” The survey asked respondents to gauge the severity of the following problems: “crime, drugs, or violence,” “unemployment,” “the public schools do not provide quality education,” “homelessness,” “illiteracy,” “not enough affordable, quality child care,” “abandoned or run-down buildings,” “too many unsupervised children and teenagers,” “not enough affordable housing,” and “tension between different racial and ethnic groups.” The variables are coded from 1 to 3 with higher values indicating that the respondent viewed the issue as a bigger problem. These Views of Problems are my dependent variables.

My primary independent variables are respondents’ race/ethnicity. I coded respondents as Latino regardless of their race and coded the remaining respondents as White
non-Latino, Black non-Latino, Asian non-Latino, and Other non-Latino. I control for a number of different demographic characteristics that may predict views on important problems and which may correlate with race. To represent low income individuals I used three different survey questions to create a variable noting whether or not the respondent was Income Stressed, the respondents’ level of Education, whether or not she Owns her home, her Employment status, Church attendance, Age and Age squared, is Female, is Registered to vote, has school-aged Children at home, and length of time she has Resided in the community. I also control for the respondents’ perceived level of Efficacy because scholars (e.g. Marschall and Shah 2007) have found that African Americans tend to feel less efficacious generally and that efficacy predicts opinions about services. Finally, I included respondents’ Ideology.

A number of studies show that local context significantly affects respondents’ opinions on everything from trust in government officials (Bobo and Gilliam 1990, Rahn and Rudolph 2005), to satisfaction with police (Marschall and Shah 2007, Sharp and Johnson 2009; Reisig and Parks 2000) and other city services (Van Ryzin et al 2004), as well as ideology (DeLeon and Naff 2004). In the Knight data, the between-city variance is significant and large (although not as

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3 The first question asked, “At any time in the last 12 months, have you and your family had a time when you could not pay for basic living costs such as food, rent, or heating or electric bills?” The second asked, “Approximately what is your total family income before taxes – just tell me when I get to the right category?” If the respondent refused to answer she was then asked, “Would you mind telling me if in 2001 your total family income from all sources, before taxes, was under $20,000 or $20,000 or more?” The income stress variable is coded one if the answer to the first question was yes, and/or the respondent’s income was less than $20,000 as indicated by the categorical income variable or the follow-up question. Unfortunately in the 1999 survey respondents were only asked the categorical income question. So for 1999, income stress captures respondents whose income was less than $20,000. I use income stress instead of categorical income variable for a practical reason and a theoretical reason. Practically, the income stress variable includes about 6,400 additional observations. Theoretically, it allows me to capture some of the differences in cost of living across cities. Replacing the variable with dummy indicators for income categories does not change the conclusions.

4 This categorical variable is created from the question, “Overall, how much impact do you think people like you can have in making your community a better place to live...a big impact, a moderate impact, a small impact, or no impact at all?”
large as the within-city variance). To account for these different contexts I include fixed effects for each city as well as an indicator for 2002 (the national sample is the excluded category). The errors are clustered by city-year.

Rather than present separate regression results for each problem area, Figure 1 shows the predicted marginal effects of race holding all other variables at their mean values in each regression. Vertical bars show 95% confidence intervals around the estimates. Full regression results are available from the author.
Figure 1: Predicted racial differences in viewing issues as a problem, 1999 and 2002
The figure makes clear that local public opinion is significantly divided along racial lines. While black, Latino, and Asian respondents do not have very different views regarding important problems in their communities – whites are a clear outlier in every case. White and nonwhite residents differ with respect the problems they see as most challenging in their communities with whites much less likely to view any of the issues presented as big problems. However, the nature of these questions do not allow us to tell whether or not residents seek policy interventions in any of these areas.

To determine whether or not racial divides exist with respect to preferences over government expenditures I draw on the General Social Survey. The GSS administers a survey to an average of 2,000 respondents representing adults living in non-institutional arrangements in the United States in a biennial basis. I created a new dataset built from restricted access GSS data from the 1998, 2000, 2002, 2004, 2006, and 2008 surveys. The restricted data provide information on respondents’ census tract location, allowing me to determine the city of residence for each respondent.

For dependent variables I use GSS questions asking about public spending. The question reads: “We are faced with many problems in this country, none of which can be solved easily or inexpensively. I’m going to name some of these problems, and for each one I’d like you to tell me whether you think we’re spending too much money on it, too little money, or about the right amount. First (ITEM)...are we spending too much, too little, or about the right amount on
(ITEM)?”5 I use five public good items that respondents might assign to local government:6 “highways and bridges”, “law enforcement,” “parks and recreation,” “education,” and “assistance to the poor.” I also analyze support for the government’s role in providing a decent standard of living for the unemployed.7 All dependent variables are coded so that higher values equate to more spending or governmental assistance.

I analyze whether or not racial groups have different preferences for spending on these programs. My primary independent variables are indicators noting whether the respondent is Black (non-Hispanic), Hispanic (of any race), or Other race (non-Hispanic), with white as the excluded category.8 Because the number of respondents from each city is not large, I am judicious with additional independent variables. I control for the respondent’s Age, Sex, and Income.9 I run mixed effect models with fixed effects for census region and random effects for the respondent’s city of residence. In Figure 2, I present the marginal effect of race on support

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5 While respondents were asked about spending in a number of different policy areas (as many as 17 in some years), they were not encouraged by the survey to think holistically about budgets or tradeoffs. A large literature on public opinion indicates that without explicit guidance respondents tend to ignore tradeoffs and “ask for nearly full achievement of every goal,” Kuklinski et al 2001, p 411. Thus, while it may be the case that increasing or decreasing funding on all policy areas would be impossible in reality, respondents were free to answer in any way that they liked.

6 Atkeson and Partin (2001) provide evidence that developmental concerns – like transportation policy (and conceivably parks and recreation although this was not asked specifically), are seen by voters as non-federal responsibilities. They also find that respondents give non-federal officials responsibility for the economy. Respondents thought reducing crime and helping the poor were the responsibility of both federal and non-federal officials. Schneider and Jacoby (2003) report that nearly 3/4ths of their respondents view the maintenance of “public roads, bridges, dams and the like” as a non-federal responsibility and better than half view “reducing crime” and “reducing unemployment” as non-federal.

7 The question reads “On the whole, do you think it should or should not be the government's responsibility to provide a decent standard of living for the unemployed?” Response options include definitely should not be, probably should not be, probably should be, and definitely should be. Responses were rescaled to take a minimum value of 1 and a maximum value of 3 for comparability to the other questions analyzed. The unemployment question was asked only in 2006.

8 The GSS codes race as White, Black, and Other so I am unable to analyze the responses of Asian Americans.

9 Controlling for ideology results in a significantly reduced sample sizes, but does not change any of the conclusions.
for spending in each category; vertical bars represent 95% confidence intervals. The figure reveals significant racial/ethnic gaps.

**Figure 2: Predicted racial differences in support for local expenditures, 1998-2008**

Overall, whites are less supportive of spending than minorities, except for on roads spending. Blacks are more supportive of spending than whites on all of the remaining categories – parks, law enforcement, unemployment, education, and assistance for the poor. Latino and other race respondents have more mixed attitudes relative to whites. On most issues black respondents are the most supportive of spending, followed by Latinos, and then whites. Replacing the individual racial groups with a binary indicator for white/nonwhites
yields even more powerful differences on each of these different questions. Given these divergent preferences, we might expect city policy patterns to have an effect on residential location.

**Segregation Patterns**

Segregation can occur at different levels. Within a city, whites may be segregated from nonwhites in different neighborhoods. Alternatively, whites may be separated from nonwhites in different cities. While whites may choose residential locations that result in more homogenous neighborhoods for a variety of reasons, only cross-city segregation ought to be affected by the bundle of public goods provided by the city.\(^{10}\) Because white and nonwhite preferences for local policies differ, when city budgets favor policies disliked by whites, we should see an increased tendency toward segregation across city lines. As Fischer et al (2004) explain

> Many critical institutions in America are determined by specific municipality laws and regulations – housing and zoning codes, school finances and policies, tax rates, policing, and infrastructure maintenance, to name some. Therefore, many people sort themselves out by municipality...[as opposed to the] lowest, most finely grained, level of segregation...the neighborhood...

To illustrate these different levels of segregation, Figure 3 provides images from a map of developed by Dustin Cable for the Weldon Cooper Center for Public Service at the University of Virginia. The map includes one dot for each person in the United States as of the 2010

\(^{10}\) To the extent that neighbor characteristics determine the quality of public goods in a neighborhood (e.g. the education level of the parents drives up school achievement), public goods are likely to be a factor in neighborhood choice as well. The analysis here focuses on public goods provision determined by city governments (measured as total expenditures) and so only cross-city segregation should be implicated.
Census color coded by race (blue for White, green for African American, red for Asian, and orange for Latinos).\textsuperscript{11} The upper panel shows Chicago, Illinois – a city in which neighborhoods are clearly delineated by race. The bottom panel shows a section of the Detroit, Michigan metro area where racial sorting is much more prevalent across city lines as opposed to within them. The stark horizontal divider between the blue and green dots is 8 Mile Road which marks the boundary between Detroit and the neighboring city of Warren. A similar vertical division can be found on the right hand side of the picture noting the boundary between Detroit and the cities of Grosse Pointe, Grosse Pointe Park, Grosse Pointe Farms, and Grosse Pointe Shores.\textsuperscript{12} While the white residents of Chicago may choose to live in homogenous neighborhoods, this is likely to be unrelated to citywide expenditures.\textsuperscript{13} But in Detroit, patterns of public goods provision could affect whites’ decisions to live in Warren or Grosse Pointe.

I predict that as city spending becomes less favorable to white interests, whites should be more likely to select residential locations outside of city boundaries. As a result segregation across city lines (versus within city lines) should increase. We most commonly think of segregation across city lines as a process of suburbanization, but sorting between suburbs is another version of the same pattern.

\textsuperscript{11} Available at http://demographics.coopercenter.org/DotMap/index.html
\textsuperscript{12} The maps are shaded based on population density, hence the darker colors in Chicago.
\textsuperscript{13} Although it clearly could be related to the distribution of these expenditures.
Figure 3: Segregation at the Neighborhood Level versus Metropolitan Level
In order to analyze these propositions I constructed a dataset measuring segregation in metropolitan areas from 1970-2000 using a product developed by GeoLytics called the Neighborhood Change Database (NCDB). The NCDB matches and normalizes Census tract boundaries for each Census year, allowing for direct comparison in demographic changes over time. Census tracts are relatively stable, contiguous geographic areas containing approximately 4,000 people. Most analyses of segregation use census tracts as a proxy for neighborhood (e.g. Massey and Denton 1998). The NCDB census tract data allowed me to create a panel dataset measuring segregation at the census tract level for each metro area.

As explained above, if racial segregation is partially driven by city policy considerations, we ought to see a relationship between city policy patterns and the level at which segregation occurs. Determining this requires a measure that can be decomposed into within-city and across-city components. Theil’s $H$ Index (1972) allows for this type of disaggregation because it is perfectly additive for nested geographies (Reardon and Firebaugh 2002). Thiel’s $H$ allows me to determine the share of total segregation in a metropolitan area that is determined by segregation across cities versus within them. I use this Cross-city Share as the dependent variable in my analyses. One major benefit of this measure is that it controls for the general preference of whites and nonwhites to live in homogenous neighborhoods. Details regarding the calculation of this measure are included in the appendix.

My independent variables come from the Census of Governments State and Local Government Finance files from 1967 to 2002. These data are collected in years that end with 2 and 7 and I used linear interpolation to generate census year estimates of city expenditures.

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14 Census tracts are nested within states and counties, but do, in some cases, cross city lines.
My argument is that city policy should affect segregation patterns. It could be the case that all city expenditures have this effect, but because I only have one measure of segregation for each metropolitan area, it is not obvious how to combine city expenditure patterns for multiple jurisdictions in the same metro area. Instead, I analyze the effect on segregation of city spending patterns in the city with the largest population in the metropolitan area. Thus, in the Detroit-Livonia-Dearborn metropolitan area, I estimate the relationship between Detroit’s city expenditures and the share of metropolitan segregation that is attributed to whites living in different cities than nonwhites (which happens to rise from 51% to 83% over this time period).

The results in the first half of this paper suggested that whites have different preferences and priorities for city expenditures than nonwhites. Is it the case that expenditures favoring nonwhite preferences in central cities is correlated with additional cross-city segregation? In short, yes.

Whites and nonwhites viewed city priorities differently particularly with respect to crime, education, and assistance to the poor. To analyze the relationship between segregation and city policy in these areas, I regress the share of metropolitan area segregation determined across cities on the proportion of the city budget spent on Policing, Inspections, Housing and Community Development, Libraries, and Public Welfare. I do not include spending on education because the vast majority of education expenditures are handled by school districts, not cities. For comparison, I also include the proportion of the city budget spent on housekeeping functions including Roads, Sewers, and Garbage.

It is possible (perhaps quite likely) that patterns of racial dispersion affect city spending in addition to working the other way around. To attempt to control for this possibility all of my
spending measures are lagged by 10 years and I include controls for the natural log of the

*Population*, the proportion of the city that is *White*, and the proportion of city residents living
below the *Poverty* line. I also include fixed effects for census year and cluster the errors by city.

Summary statistics are included in the appendix.

<table>
<thead>
<tr>
<th>Table 1: Effect of City Spending Patterns on Share of Metropolitan Segregation Attributed to Cross-City Segregation</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Police                                                                 0.465 *                                                                0.250</td>
</tr>
<tr>
<td>% Inspections                                                           3.402 **                                                                1.191</td>
</tr>
<tr>
<td>% Housing &amp; Comm. Development                                          0.431 **                                                                0.187</td>
</tr>
<tr>
<td>% Libraries                                                             1.935 **                                                                0.614</td>
</tr>
<tr>
<td>% Public Welfare                                                        0.643 **                                                                0.220</td>
</tr>
<tr>
<td>% Roads                                                                 -0.300                                                                 0.204</td>
</tr>
<tr>
<td>% Sewers                                                                0.041                                                                  0.107</td>
</tr>
<tr>
<td>% Garbage                                                               -0.973 **                                                               0.338</td>
</tr>
<tr>
<td>Population (logged)                                                     -0.017                                                                 0.012</td>
</tr>
<tr>
<td>% White                                                                 -0.212 **                                                               0.083</td>
</tr>
<tr>
<td>% in Poverty                                                            0.209                                                                  0.219</td>
</tr>
<tr>
<td>1990                                                                    0.023 **                                                                0.011</td>
</tr>
<tr>
<td>2000                                                                    0.069 **                                                                0.013</td>
</tr>
<tr>
<td>Constant                                                                0.603 **                                                                0.198</td>
</tr>
<tr>
<td>N                                                                       605</td>
</tr>
<tr>
<td>R²                                                                      0.213</td>
</tr>
</tbody>
</table>

Note: OLS Regressions, *p<.10, **p<.05, robust standard errors clustered by city presented

The table reveals that when central cities spend a larger proportion of their budget on
policing, inspections, housing and community development, libraries, and public welfare, a
larger proportion of the metropolitan area’s total segregation is accounted for across cities
rather than within them. The picture is different when considering expenditures on
housekeeping functions. These categories of expenditure (likely to be more supported by white
residents) are either unrelated to metro segregation patterns or (in the case of garbage
spending) decrease cross-city segregation. In sum, Table 1 offers evidence in support of the
argument that city expenditures which favor nonwhite policy preferences in issues areas where whites and nonwhite preferences diverge are associated with more segregation across city lines as opposed to within cities.

**Conclusion**

The literatures on public goods and segregation are both very large and well developed. Yet, until now, they have been separate. I argue that we can better understand both Tieboutian sorting and racial residential division by combining insights from both traditions. I have argued that household searches for the ideal bundle of government policies can have racial implications when groups hold divergent preferences over the menu and level of services that should be offered. Using data from two different large surveys containing responses across multiple cities, I show that whites are much less likely to view a host of issues as big problems in their communities and tend to have significantly more conservative spending preferences compared to nonwhites. The only area in which whites support greater spending than nonwhites is on roads. Overall, whites seek smaller, less active local governments. When central cities in metropolitan areas have more active policy agendas; when they spend more on budgetary items like policing and welfare, we see greater segregation across city lines. Whether this is because whites leave central cities or never move in, the result is a higher degree of racial separation between cities in metropolitan areas.
Appendix:

Knight Community Indicators Survey

<table>
<thead>
<tr>
<th>City</th>
<th>State</th>
<th>Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aberdeen</td>
<td>SD</td>
<td>500</td>
</tr>
<tr>
<td>Akron</td>
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<td>Biloxi</td>
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<td>Boca Raton</td>
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<td>Fort Wayne</td>
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<td>500</td>
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<td>Gary - Suburbs</td>
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<td>Macon</td>
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<td>800</td>
</tr>
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<td>800</td>
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<tr>
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<tr>
<td>Wichita</td>
<td>KS</td>
<td>501</td>
</tr>
</tbody>
</table>

Theil H Index

Theil’s H Index (1972) measures the evenness of dispersal of groups across geographic units (in this case census tracts, cities, and metro areas). It is based on Theil’s entropy score (a measure of diversity). Entropy can be calculated for many groups, but for ease of analysis I use
only two here – white and nonwhite. In the case of two groups, the formula for entropy reduces to:

\[
E_t = W_t \ln \left( \frac{1}{W_t} \right) + (1 - W_t) \ln \left( \frac{1}{1 - W_t} \right)
\]

\[
E_c = W_c \ln \left( \frac{1}{W_c} \right) + (1 - W_c) \ln \left( \frac{1}{1 - W_c} \right)
\]

\[
E_m = W_m \ln \left( \frac{1}{W_m} \right) + (1 - W_m) \ln \left( \frac{1}{1 - W_m} \right)
\]

Where \( W \) represents the proportion of the population that is white in tract \( t \), city \( c \), or metro area \( m \).

The \( H \) index is a weighted average of deviation of each unit’s entropy from the larger unit’s entropy. Here, I calculate an \( H \) index for all cities within a metro area, denoted \( H_{m,c} \) and all tracts within each city, denoted \( H_{c,t} \).

\[
H_{m,c} = \sum_{c=1}^{C} \frac{P_c}{P_m} \left( \frac{E_m - E_c}{E_m} \right)
\]

\[
H_{c,t} = \sum_{t=1}^{T} \frac{P_t}{P_c} \left( \frac{E_c - E_t}{E_c} \right)
\]

Where \( P \) represents total population of the geography \( t, c, \) or \( m \). All tracts in a larger unit are denoted \( T \) and all cities in a larger unit are denoted \( C \).

These two indices can be combined produce a total \( H \) index for the metro area which is equal to an \( H \) index calculated for the metro area at the tract level, \( H_{m,t} \).

\[
H_{m,t} = \sum_{t=1}^{T} \frac{P_t}{P_m} \left( \frac{E_m - E_t}{E_m} \right) = H_{m,c} + \sum_{c=1}^{C} \left( \frac{P_c}{P_m} \right) \left( \frac{E_c}{E_m} \right) H_{c,t}
\]
I analyze the percentage of total metropolitan area segregation that can be attributed to cross-city segregation as opposed to within-city segregation. I have one observation per metro area in 1970, 1980, 1990, and 2000.

The dependent variable in my analyses is

\[ \text{share\_across} = \frac{H_{m,c}}{H_{m,t}} \]

<table>
<thead>
<tr>
<th>Summary Statistics NCDB</th>
<th>Obs</th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-City Share of Segregation</td>
<td>605</td>
<td>0.364162</td>
<td>0.1786</td>
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<tr>
<td>% Police</td>
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<td>0.126252</td>
<td>0.047581</td>
<td>0.029289</td>
<td>0.335298</td>
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<td>0.007354</td>
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<td>% Housing &amp; Comm. Development</td>
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<td>0.039521</td>
<td>0.042566</td>
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<td>0.435278</td>
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<td>% Libraries</td>
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<td>0.015311</td>
<td>0</td>
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</tr>
<tr>
<td>% Public Welfare</td>
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<td>0.027371</td>
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<td>% Roads</td>
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<td>0.112035</td>
<td>0.054571</td>
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<td>% Sewers</td>
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<td>% Garbage</td>
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<td>11.79816</td>
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<td>% White</td>
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<td>0.756036</td>
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<tr>
<td>% in Poverty</td>
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<td>0.057135</td>
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<td>0.462501</td>
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References


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United States Census Bureau


Weldon Cooper Center for Public Service, University of Virginia (Dustin A. Cable, author, 2013)"