

Nonprofit Density and Distributional Equity in Public Service Provision: Exploring Racial/Ethnic Disparities in Public Park Access across U.S. Cities

Forthcoming at *Public Administration Review*

Yuan (Daniel) Cheng (Ph.D.) is an Assistant Professor in the Humphrey School of Public Affairs at the University of Minnesota. His research focuses on government-nonprofit relations, coproduction, and the distributional and performance implications of cross-sectoral collaboration.

Email: cheng838@umn.edu

Lang (Kate) Yang (Ph.D.) is an Assistant Professor at the Trachtenberg School of Public Policy and Public Administration at George Washington University. Her research interest is in state and local government budgeting and finance, education finance, and government transparency.

Email: langyang@gwu.edu

Shuyi Deng is a Ph.D candidate at the Humphrey School of Public Affairs, University of Minnesota. Her research interests lie in racial equity and nonprofit organizations.

Email: dengx413@umn.edu

Acknowledgments: The authors wish to thank the participants of the 2020 *PAR* Symposium on Race, Gender, and Social Equity and three anonymous reviewers for their helpful comments.

Nonprofit Density and Distributional Equity in Public Service Provision: Exploring Racial/Ethnic Disparities in Public Park Access across U.S. Cities

Abstract

Existing research on the distributional impacts of nonprofits and philanthropy focuses on how different groups directly benefit from nonprofit service providers. Given the increasing roles nonprofits play in public service provision and urban governance, it is critical to examine how the nonprofit sector may influence the distribution of public services. Combining the literature from urban affairs and nonprofit studies, we propose a theoretical framework to articulate various pathways through which communities with a larger nonprofit sector may create favorable conditions for public services to be distributed to certain racial/ethnic groups. We further test this framework using a unique geospatial dataset of public park access by different racial/ethnic groups in 2,392 U.S. cities. Our findings indicate that communities with a higher density of park-supporting nonprofits generate better park access for all racial/ethnic groups. However, more benefits accrue to whites than to other racial/ethnic groups.

Keywords: public service provision, nonprofit density, distributional equity, race and ethnicity, park access, urban governance

Evidence for Practice

- The distributional impacts of the nonprofit sector depend not only on how nonprofit services are distributed. As nonprofits play an increasingly important role in financing and shaping public services, it is imperative to develop better theories to assess how the nonprofit sector may influence the distribution of public services.
- In the context of public park services, while the nonprofit sector promotes park access of all racial/ethnic groups, more benefits accrue to whites than to other racial/ethnic groups.
- Because of the complicated realities of the relationship between the nonprofit sector and racial/ethnic equity in public service access, public managers need to design better policies and institutional structures to ensure both equitable public service provision and active participation of non-governmental actors.
- Public managers need to conduct distributional impacts analysis when selecting nonprofit partners for public service provision.
- Compared to nonprofit organizations, local government investments do not widen the disparity between whites and POC groups in public park access in cities. Governmental institutions have an indispensable role in safeguarding racial/ethnic equity in public service provision.

Charles Clotfelter, in his provocative 1992 book, *Who Benefits from the Nonprofit Sector*, regarded the distributional consequences of nonprofit activities as the central yet less studied topic of nonprofit and voluntary studies, especially compared to the field's focus on how nonprofit organizations helped society achieve efficiency gains and the accountability challenges in the contracting regime (Smith and Lipsky 2009). Julian Wolpert (2001, 123) concluded in his provocative essay that "our knowledge of the incidence of benefits or who benefits and how (from the nonprofit sector) ... is almost entirely lacking." Given the central position of social equity in the public management scholarship (Cepiku and Mastrodascio 2021; Frederickson 2005; Guy and McCandless 2012; Wright and Merritt 2020) and the increasing roles of nonprofits in financing and influencing public service provision (Cheng 2019a; Gazley et al. 2018; Fyall 2016), this question about the distributional impacts of the nonprofit sector becomes more salient, particularly with its connection to a more equitable provision of public services.

In the last thirty years, while scholars have made significant strides towards understanding the distributional impacts of nonprofits and philanthropy, existing studies that examined the relationship between the nonprofit sector and social equity tend to focus on where nonprofits are located – whether communities that are whiter and more resourceful are more likely to have nonprofit service providers (Gazley et al. 2020; Garrow 2014; Paarlberg and Gen 2009).

However, with a recent surge in the public and nonprofit management scholarship (Cheng 2019b; Denhardt and Denhardt 2000; Fyall 2016) and an established line of research in urban studies, political science, and sociology (Marwell 2004; Pincetl 2003; Reckhow et al 2020; Rigolon 2019), we know that nonprofits are important players in influencing and shaping public service provision and local governments' distribution decisions. Therefore, the distributional

consequences of the nonprofit sector do not only rest on who has access to services directly provided by nonprofits, but also how nonprofits may shape who has access to public services provided by the government. We argue that the latter issue is overlooked but of greater importance to the question of who benefits from the nonprofit sector as these influences are beyond the direct service provision function of nonprofits and could impact a larger share of the society through public service provision. This more important issue speaks to the distributional equity in public service provision or access to public services. Distributional equity, as one of the four primary areas of social equity addressed by the National Academy of Public Administration (NAPA), concerns the level of access to services/benefits and involves an analysis of reasons for unequal access (Svara and Brunet 2004, 101; Gooden 2006, .6).

Informed by the literature of urban governance, environmental justice, and sociology, this article builds on the existing theories and empirical studies of government-nonprofit relations to provide a framework of how nonprofit organizations, starting from where they are located, may systematically influence the equitable distribution of public services. We further test the applicability of this framework by exploring the relationship between the density of park-supporting nonprofits and the distribution of public parks in 2,392 U.S. cities. This article makes several theoretical and empirical contributions to the existing literature. First, despite a strong scholarly focus on the community racial composition and nonprofit density, existing studies have paid less attention to how nonprofits shape and impact the distribution of public services (Cheng and Choi 2021). Bridging literature from multiple disciplines, we provide one of the first attempts to articulate these possible pathways through which nonprofits may impact public

policies and exaggerate or alleviate inequities embedded in the existing institutional environment.

Second, leveraging a unique geospatial dataset compiled by the Trust for Public Land, we track access to public parks by different racial/ethnic groups in 2,392 U.S. cities, measured as the proportion of each racial/ethnic group who live within a 10-minute walk, or 0.5 miles, of a park. Existing research shows that residents are most likely to use local parks when they live within the walking distance of a park (Banner, Mummert, and Mendoza 2019). Because of the lack of race-specific service provision data, prior studies often use a community's overall sociodemographic characteristics to predict community-level outcomes (Garrow 2014; Liang, Park and Zhao 2020), for example, whether schools or state parks in whiter communities receive more voluntary contributions via their supporting charities (Gazley, LaFontant and Cheng 2020; Nelson and Gazley 2014). However, the conventional approach assumes equal distribution across groups within a locality, therefore failing to examine the relative impact of policies or institutions on different groups within the locality. Our data shows the race/ethnicity-specific park access patterns across a large sample of U.S. cities and within each city, providing more direct measures of distributional equity.

Third, by developing both the absolute and relative race/ethnicity-based measures of public service access, we push forward the conceptual clarity of distributional equity. The absolute public service access measures how much of public service distribution is enjoyed by different groups, while the relative public service access focuses on the disparity between advantaged and

disadvantaged groups within the same area. Distinguishing between the two measures helps address the “hard question” - provocatively proposed by Meier, Wrinkle, and Polinard in 1999 - whether the benefits enjoyed by one racial group are at the expense of other racial groups, especially between whites and people of color (POC). Our results show that public service distribution does not need to be zero-sum: while a higher density of park-supporting nonprofits may help increase access to public park services for all racial/ethnic groups, it is associated with an increasing disparity in park access between whites and POC living in the same city.

Theoretical Perspectives

The literature on the distributional consequences of the nonprofit sector rests on two fields. The first is nonprofit studies where scholars investigate where we are likely to observe more nonprofit activities. The supply-side and demand-side theories offer opposite predictions about the community conditions under which we are likely to observe a larger nonprofit sector, therefore implying different answers about who benefits from nonprofit services. The second is political science, sociology, and urban affairs scholarship. In this scholarship, nonprofit organizations are regarded as key participants in shaping urban politics of public service provision. The implications for distributional equity rest on who nonprofits represent and how they may direct public resources to their communities. By combining these lines of inquiry, we aim at drawing a more complete picture of the distributional consequences of the nonprofit sector – where nonprofit activities are more likely to take place and how nonprofits may get involved in urban politics jointly determine who benefits from the nonprofit sector. In the following sections,

we provide detailed illustrations of these perspectives and how such dynamics may play out in public park services.

Community Variations in Nonprofit Sector Size and Implications for Distributional Equity

The classical theory of the nonprofit sector starts with the heterogeneous demand thesis (Weisbrod 1977). Because of the government's focus on meeting the demands of the median voters, nonprofits step in to respond to heterogeneous preferences within the community. Since the introduction of this argument, scholars have used racial diversity as a proxy for the level of heterogeneous preferences in a given community (Paarlberg and Zuhlke 2019), hypothesizing that nonprofits thrive in communities with a higher level of racial diversity. Because whites have been the dominant race in the U.S., the proportion of the nonwhite population empirically serves as such a proxy (Gazley, LaFontant, and Cheng 2020). As a natural extension of the heterogeneous demand thesis, communities of color may witness a higher density of nonprofit organizations providing service to them (Garrow 2014; Bielefeld 2000). The nonprofit sector is in a great position to “understand and voice the needs of disadvantaged, excluded, and underrepresented groups” (Andrews and Entwistle 2010).

While arguments from the heterogeneous demand thesis point to likely patterns of nonprofits locating in more racially diverse communities, supply-side explanations suggest that nonprofits are more likely to be located in communities with more resources and a racially homogeneous population (Ben-Ner and Van Hoomissen 1991; Grønbjerg and Paarlberg 2001). There is a considerable amount of research suggesting that white residents with more resources are more

likely to organize themselves and support nonprofit organizations (Paarlberg and Gen 2009; Yandle, Douglas, and Gazley 2016). The social capital literature suggests that whiter communities often possess more social capital for self-governance. Hero (2003, 113), therefore, concluded that social capital “does not necessarily bridge across racial or ethnic groups; nor do they always engender relative civic and economic equality between blacks and whites. Even more problematic, higher aggregate social capital is sometimes associated with relatively worse outcomes for racial minorities.”

In addition to the human and social capital for self-organize, scholars have directed attention to the complex external and internal structures that make the nonprofit sector particularly tailored to whites. Guo, Metelky, and Bradshaw (2013) found that the boards of nonprofit organizations were dominantly occupied by wealthy whites, who held key decision power. As a sector, the nonprofit workforce is also predominantly white, as Tomkin (2020) suggested that more than 80 percent of nonprofit organizations were white-led. The dominance of whites in nonprofit leadership and governance may greatly compromise nonprofit organizations' ability to advocate for and serve the interest of the community of color. Heckler (2019) illustrated how the legal and economic realities of the nonprofit sector systematically benefited whites, for example, the concentration of donors who are white and the pressure to conform to white-dominant institutions such as managerialism and professionalism. Approximating whiteness becomes a common strategy for POC to succeed in business-like settings. All these internal and external forces may make nonprofits more likely to locate in whiter communities and tailor their services towards the white people.

How Nonprofits Influence Public Service Provision and Implications for Distributional Equity

While community variations in the size of the nonprofit sector are important to our understanding of “who benefits from the nonprofit sector”, what is largely missing in the existing public and nonprofit management literature is whether and how the nonprofit sector may impact the distribution of public services. From a social equity perspective, filling this gap is critical. Unlike nonprofit services which are optional benefits a community enjoys, the provision of public services is meant to be fair and serve all (Prottas 1981). While direct nonprofit advocacy has been long recognized as a strategy of nonprofits to influence public policy, recent studies in urban affairs, political science, sociology, and public management suggest that nonprofits can impact the distribution of public services via multiple pathways.

The first mechanism is substitution, which suggests that because of the existence of nonprofit organizations and the services they have provided to their communities, governments may decide to invest public resources to other communities to advance the overall equity of service provision. This mechanism is consistent with Young (2000)’s supplementary model of government-nonprofit relations and there is some empirical validation of the substitution mechanism. Through a 24-year longitudinal study of large U.S. city park systems, Cheng (2019a) finds that as the spending of park-supporting charities increases over time, public spending on parks and recreation services decreases. In higher education, there is evidence suggesting that as universities receive more philanthropic gifts, the level of public funding decreases over time (Becker and Lindsay 1994). From this perspective, if nonprofits are more

likely to be located in whiter communities, local governments may move their investments away from these communities and provide more services to communities with more POC residents.

On the other hand, there are multiple mechanisms through which communities with more nonprofits are likely to get more public resources. First, rather than crowding out public resources directed to their supporting communities, nonprofits can set up resource levers to attract more public services. The most classic example is the Carnegie libraries. Andrew Carnegie would only build libraries in a community when its local government is committed to matching funding and staffing support for the future operating cost of the library. In a recent study of housing nonprofits, funding levers for public services is considered a major strategy for nonprofits to exert their policy influences on local and state governments (Fyall 2016). To understand why public parks are disproportionately located in whiter neighborhoods in Minneapolis from a historical perspective, Walker (2021) discovered that the reliance of the Park Board on the donation of land from wealthy landowners and local clubs is a key reason why public parks are located in certain neighborhoods. The Park Board is then tied to providing future maintenance and programming support in those public parks. Either through staffing/volunteer support, matching funding, or the donation of lands/facilities, nonprofits can set up these resource levers to bring public resources to the communities they support. Situated in the context of New York City's park system, Cheng and Li (2021) also found that public capital project funding is more likely to be allocated to park units supported by government nonprofit partnerships.

In addition to resource levers, nonprofits can also bring more public services to their supporting communities by engaging in patronage politics. In this framework, nonprofits are regarded as key participants in urban governance and planning (Brandtner and Dunning 2020; Marwell et al. 2020; Cheng 2019b; Pincetl 2003). Besides leveraging funding, nonprofits can also leverage their local constituencies to influence where public services are distributed. Marwell (2004, 265) described a model of community-based organizations generating “greater contract revenues by adding electoral politics to their more traditional roles of providing services and building communities.” By mobilizing their constituents and clients, they can effectively create political capital to influence how politicians distribute public services.

While more racially homogenous and resourceful nonprofits, often comprised of white leadership and staff, are better equipped to organize their constituencies and shape government budgeting decisions (Garrow 2014), this mechanism or strategy may also be applied to nonprofits serving POC communities or those aiming at generating system-level equity of public service provision. In a recent empirical study of nonprofits with the specific goal of achieving environmental justice for green and blue spaces in California, Rigolon and Gibson (2021, 9) found that nonprofits with a focus on advancing environmental justice are more likely to be located in less resourceful and racial/ethnic minority communities. Building coalitions and organizing their local communities to facilitate more equitable distribution of public resources is a key strategy those nonprofits use. Fyall (2016) found similar strategies in her study of nonprofits working in the affordable housing policy arena.

Summary

We surely have not identified every pathway through which the nonprofit sector may influence the distribution of public services. However, as we combine the literature on the community characteristics favoring nonprofits and that on the nonprofit influence over public service provision, a paradoxical relationship between the nonprofit sector and distributional equity in public service provision emerges. The paradox between demand and supply perspectives poses uncertainties about whether nonprofits are more likely to be located in whiter communities. The paradox between substitution and exchange makes it a moot question of whether local governments distribute more public services to communities with a larger nonprofit sector. The purpose of our inquiry is to empirically assess, in the aggregate, which mechanisms are likely to outweigh the others. These dynamics are likely to be different in different policy subsectors and when the distribution of power between the government and the nonprofit sector differs.

Figure 1 summarizes the integrated theoretical framework on how the nonprofit sector may impact distributional equity in public service provision. The demand-side factors make it more likely for nonprofits to be located in racially diverse communities while the supply-side factors favor whiter communities. For the second part of the framework, the substitution mechanism makes local governments more likely to distribute public services to communities with less nonprofit support while the exchange mechanisms (either via resource levers or patronage politics) bring more public services to communities with more nonprofits. These two parts of the framework jointly determine which racial group has better access to public services as a result of the presence of nonprofits. By observing the covariation between the nonprofit sector size and the distribution of public services to different racial/ethnic groups in a locality, we can assess

whether the pathways through which nonprofit organizations channel public services to whiter communities are stronger, neutral, or weaker than the pathways where nonprofits bring public services to POC communities.

The Context of Public Park Services

This study takes place in the context of public park services in the United States, focusing on how park-supporting nonprofits may shape different racial/ethnic groups' access to public parks. There are several reasons why the subsector of public park services is particularly appealing to our purpose of inquiry. First, parks, especially public parks, are free and intended to serve all residents. There are generally no barriers to use based on the discretion of the public administrators, price, or admission fees; unlike human services, there are typically no eligibility criteria. What constrains the use of park services, instead, is often the location of parks. The locations of public parks, which often impose costs on these so-called free services, offer us insights into the underlying social structure of the community (Prottas 1981).

Second, public park services are a type of public service where nonprofit organizations play important roles in financing and planning service provision (Brecher and Wise 2008; Cheng 2019a; Cheng and Yang 2019). According to a recent study of large park conservancies in the U.S., Harnik and Martin (2015) found that park conservancies spent 50 percent more on public parks they support than public park departments. In a more comprehensive study of park-supporting nonprofits covering organizations beyond park conservancies, Cheng (2019b) found that the increasing level of spending of these nonprofits had a decreasing effect on the level of

public operational spending on park services. The reliance on nonprofit funding leads to two concerns, first over the crowding out of public funding (Walls 2014) and second, unequal benefits enjoyed by better-resourced parks as park-supporting nonprofits are often located in more resourceful and whiter neighborhoods (Brecher and Wise 2008; Gazley et al. 2020). As a result, scholars and policymakers have advocated for more research to examine how different spending patterns on parks may affect access to public parks by various racial/ethnic groups differentially (Nisbet and Schaller 2019; Rigolon 2019).

Finally, as a form of amenity, public parks provide larger benefits to people who live closer by. As a result, donors of park-supporting nonprofits are also more likely to live nearby those parks so that they can enjoy the reciprocal benefits (Gazley et al. 2020). Supporting public parks is also considered as a part of placemaking efforts where arts and culture initiatives benefit local communities (Daniel and Kim 2020). These initiatives are often constrained by resource endowments of the local communities, rendering supply-side factors particularly salient in driving their development. Rather than benefiting the poor and racial minority groups, park-supporting nonprofits may be institutions that the white and wealthy create to advance their interest (Walker 2021). In addition, compared to the overall workforce of the nonprofit sector, environmental and recreational nonprofits are particularly white-dominant (Taylor, Paul, and McCoy 2019).

Connecting these important features of the public park service context to our proposed theoretical framework, we expect that supply-side forces are stronger in determining the size of

park-supporting nonprofits in a community; that is, the density of park-supporting nonprofits is higher in whiter communities. Given the level of private donations these nonprofits can raise and their active participation in the provision of public parks, the exchange mechanisms outlined in our theoretical model may outweigh the substitution mechanism. Combining these two stronger paths in our framework, we expect that a higher density of park-supporting nonprofits is positively associated with better access to public parks by whites, thus compromising the distributional equity in public park access. In the following sections, we discuss our data and empirical strategies in detail to test this proposition.

Data and Method

We explore the relationship between park-supporting nonprofit density and distributional equity in access to public parks by compiling a unique dataset from multiple data sources. Data come from the Trust for Public Land (TPL) 2018 ParkServe dataset, the 2017 Census of Governments, National Center for Charitable Statistics (NCCS) 2018 Master Business File, International City/County Management Association (ICMA) 2016 Form of Government Survey, the 2016 County Presidential Election Returns (CPER) dataset from the MIT Election Lab, the 2010 Diversity and Disparities (D&D) data from the American Community Project at Brown University, and the American Community Survey (ACS) 2014-2018 5-year Estimates.¹ After merging multiple datasets and dropping missing observations due to incomplete data, our final sample contains 2,392 cities with a population of over 10,000.² Although our final sample is not representative of all U.S. cities, these larger cities usually manage a large amount of land with a complex park system, where the funding and management of parks involve different entities such

as government agencies, nonprofit organizations, private businesses, and citizens. Moreover, we include both inner and suburban cities that have different racial compositions of the residents. A systematic review of empirical studies on city park access has found that investigations centering on big cities could capture differences between inner-city and suburban locations beyond municipal boundaries (Rigolon 2016).

Dependent Variables

The dependent variables of park access come from the TPL ParkServe database in which each park in a city is geocoded with a service area of 0.5 miles or the distance of a 10-minute walk. This measure captures the relative location of a park to its potential users, which is an important factor in the assessment of accessibility in both public parks research (Nicholls 2001) and environmental equity research (Zimmerman 1993). Parks in the dataset include publicly owned local, state, and national parks, trails, open space, private-owned parks that are managed for full public use, and school parks with a joint-use agreement with local governments (The Trust for Public Land 2021). The access level of each racial/ethnic group to public park services is calculated as the percentage of the population within each group that lives within a 10-minute walk to a park. Recent large-scale survey research shows that residents are most willing to go to parks regularly when they live within a 10-minute walk (Schroeder and Wilbur 2013). Using this unique geocoded data of park access, we operationalize distributional equity in park access for the general population and racial/ethnic groups in a city based on both their absolute park access and relative access compared to whites.

Equation (1) shows the absolute measure of park access of group i , which equals the percentage of the population living within a 10-minute walk among the total population of group i . Equation (2) shows the disparity ratio as a relative measure of park access, which compares the absolute access of group i to the absolute access of whites. We choose whites as the base group because established evidence has shown that whites are advantaged in receiving various types of public services (Wilkins and Williams 2008; Craemer 2010; Roch and Edwards 2017). The equity implication of the disparity ratio is that a racial/ethnic group should receive public services as much as the advantaged group of whites. From Equations (1) and (2), we can see that while the absolute measure examines access for different racial/ethnic groups independently, the relative measure examines the inter-group difference between two racial/ethnic groups.

$$Absolute\ Measure_i = \frac{Population\ Served_i}{Population_i} \quad (1)$$

$$Relative\ Measure_i = \frac{Population\ Served_i/Population_i}{Population\ Served_{white}/Population_{white}} \quad (2)$$

Table 1 presents the summary statistics of each measure of park access. On average, about 57 percent of the city population lives within a 10-minute walk from a park. Compared to whites, the percentage is slightly higher for all POC groups except for Asians. This suggests that on average, POC groups have a similar level of access to public parks as whites in large cities. Indeed, the means of the relative measures of park access are around one for POC in general and blacks and Hispanics specifically. There are, however, wide variations in the access (dis)parity. Figure 1 shows the histograms of relative measures of park access. The distribution of the POC-white access ratio shows a sharp peak around one, suggesting parity in an average city. However,

at the left tail of the distribution, there are cities where POC groups' access to parks is only a fraction of that of whites. Similar variations in distributional equity are also observed if we compare specific racial/ ethnic groups to whites. What factors and how nonprofit density are associated with this disparity when the disparity is high? The later quantile regressions zoom in on these cities.

[Table 1 about here]

[Figure 1 about here]

Independent and Control Variables

The key independent variable, nonprofit density, measures the size of park-supporting nonprofit organizations in an area. Because of the scale of our study and the lack of comprehensive information about the missions and activities of nonprofits in our dataset, we rely on the most recently published empirical study of park-supporting nonprofits in *Public Administration Review* (Cheng 2019b) to identify NTEE codes that capture park-supporting nonprofits.³

Following Leon-Moreta, Totaro, and Dixon (2020), we count the number of park-supporting nonprofits per 1,000 population as the proxy of the density of park-supporting nonprofits.⁴

Service areas of nonprofits, especially park-supporting nonprofits in cities with more than 10,000 population in this study, are usually not confined to the city where the nonprofits' offices locate.

Therefore, we calculate nonprofit density at the county level to minimize measurement errors due to the discrepancy between nonprofits' office locations and service areas.⁵ In line with what the literature suggests about park-supporting nonprofits, their density is positively correlated

with the percentage of whites; that is, whiter communities are indeed more likely to have nonprofits active in promoting park-supporting activities.

We also control for race-specific and population-wide variables that are relevant to park access in a city. For the race-specific variables, we control for residential segregation and racial income gaps in a city. Social inequalities are not randomly distributed, but follow predictable patterns based on prior historical context (Gooden 2017). Empirical evidence has shown that park access by different racial/ethnic groups is heavily influenced by residential segregation and income inequality (Boone et al. 2009). The residential segregation data are from Brown University's 2010 D&D data, which includes various residential segregation indexes for non-Hispanic white, non-Hispanic black, Hispanic, Asian, and Native American in all cities with more than 10,000 population in 2010. Specifically, we use the dissimilarity index variable to measure whether one particular racial/ethnic group is distributed across census tracts in a city in the same way as whites.⁶ A higher index number means a POC group concentrates away from the whites and thus represents a higher level of segregation. To measure the segregation between whites and all POC, we compute the principal component factor of the dissimilarity indices for blacks, Hispanics, and Asians. The income disparities between racial/ethnic groups in a city are calculated using the ACS 2014-2018 5-Year Estimates data.

Further, we control for several sets of population-wide variables. The first set measures local government capacities, including government spending on parks, city budget surplus, and form of government. Cities with better financial means are more likely to deliver park services to more

constituents. Because the TPL data does not differentiate between parks financed by different types of local governments, we also control for park spending by the county and park special districts. As the planning and location selection for parks is highly technical, cities managed by professional city managers may be better equipped to maximize access. The second set controls for local political ideology, measured by the percent of votes to Democrat presidential candidates in 2016 using the CPER dataset. Previous studies have found that local conservatism is negatively associated with the well-being of the disadvantaged (Fording et al. 2007; Percival 2010). The third set includes local community characteristics from ACS 2014-2018 5-Year Estimates, such as median household income, homeownership rate, percentage of residents without a college education, percentage of resident workers who drive to work or live within a 30-minute commute, percentage of white residents, percentage of water area, and population density. The summary statistics of all independent variables are reported in table 2.

[Table 2 about here]

Methods

We use ordinary least squares (OLS) regressions to estimate the relationship between nonprofit density and racial/ethnic equity in park access with Equation (3), where Y_{ij} denotes the park access, by either the absolute or relative measure, for group i in city j in state s . Further, ND_j denotes the key independent variable – park-supporting nonprofit density. Two race-specific controls are included: S_{ij} denotes the dissimilarity index, a measure of residential segregation between group i and whites in city j ; and I_{ij} denotes income disparity between group i and

whites in city j . Lastly, X_j denotes all other population-wide control variables in city j . The state fixed effects α_s control for variances across states that affect park access, and ε_{ij} denotes the error term. With the estimation strategy specified in Equation (3), the coefficient of ND_j , β_1 , reveals the correlation between park-supporting nonprofit density and park access measures.

$$Y_{ij} = \beta_0 + \beta_1 ND_j + \beta_2 S_{ij} + \beta_3 I_{ij} + X_j \gamma + \alpha_s + \varepsilon_{ij} \quad (3)$$

The OLS regressions will tell us at the mean how nonprofit density is associated with the absolute and relative measures of park access for different racial/ethnic groups. The descriptive statistics show that except for Asians, POC groups on average do not have worse access to parks than whites. Scholars interested in understanding factors affecting distributional equity may be particularly interested in zooming in on places with disparity. Quantile regressions are suitable statistical techniques to answer this question. Simply running OLS regressions on the subsamples where the disparity is high will lead to inconsistent estimates, because it violates the Gauss-Markov theorem by introducing a nonzero expected error term (Wooldridge 2010). Quantile regressions, on the other hand, estimate an equation similar to the OLS regression but focus on a noncentral location of the outcome variable on relative access disparity:

$$Y_{ij} = \beta_0^{(p)} + \beta_1^{(p)} ND_j + \beta_2^{(p)} S_{ij} + \beta_3^{(p)} I_{ij} + X_j^{(p)} \gamma + \alpha_s^{(p)} + \varepsilon_{ij}^{(p)} \quad (4)$$

where $0 < p < 1$ indicates the proportion of the sample with an outcome below the quantile at p . For example, when p equals 0.1, the estimated parameters $\beta_1^{(0.1)}$ represents how nonprofit density correlates with access disparity among cities where the POC-to-white access ratio is at

the bottom decile of the sample, that is, where the access disparity is high. The regression estimates for the quantile-specific parameters by minimizing the weighted sum of distances between the fitted value and observed value of the dependent variable where the weights reflect the choice of the quantile.

Results

Results on Absolute Measures of Park Access

Table 3 presents results from regressions on the absolute measures of access, that is, cross-sectionally, which factors are associated with the percent of a particular group to live within a 10-minute walk to a park. We find remarkable consistency across the groups, from the overall city population (column 1) to whites (column 2), POC overall (column 3), and specific POC groups (columns 4 to 6).

[Table 3 about here]

Regarding the independent variable of interest, nonprofit density is positively and statistically significantly associated with park access for the general population as well as all POC groups. When the density of park-supporting nonprofits increases by 10 percent, the percent of all residents within a 10-minute walk to a park increases by 0.76 percentage points. The association between nonprofit density and park access is weaker among POC groups than among white residents: the 10-percent increase in nonprofit density is associated with a 0.57-

percentage point increase in access for POC groups but a 0.81-percentage point increase for whites. This suggests that white residents benefit more from park-supporting nonprofits than POC residents, or in other words, nonprofit density may be negatively correlated with the relative access between racial/ethnic groups. Comparing the coefficient estimates from the regressions on absolute access across racial/ethnic groups could shed light on the intergroup dynamics, but one will not be able to infer directly if the differences are statistically significant. Therefore, we later report results from regressions where the relative access measures are the dependent variables.

The segregation index of POC residents is positively associated with their absolute park access. The association is statistically significant among black and Hispanic residents; however, no such relationship is observed for Asians. The positive association between racial segregation and POC park access has been found in earlier literature as well (Watkins and Gerrish 2018). While racial segregation carries many undesirable implications (Massey 1990; Williams and Collins 2001), it may make targeted public service provision easier.

The results further suggest that local government spending on parks and recreation correlate statistically significantly with park access of all groups. For example, city government spending on parks increases the access of the general population as well as all of its subgroups. Cities running a surplus, indicating better fiscal conditions, also see better park access. All racial/ethnic groups in council-manager cities on average have better access to parks than those in cities with other forms of government. In sum, these estimates show that governments' financial and management capacities matter for the absolute measure of service provision across all residents.

Political, sociodemographic, and other community characteristics are also associated with park access. For example, cities with a larger share of Democrat-voting residents have better access to parks, possibly because high government spending including public park investment is more palatable to local constituents. Affluent communities with higher median household income see better park access, while population growth is not matched with a proportional increase in service provision, as higher population growth is negatively associated with park access. Urban areas with lower homeownership, less use of automobiles for commute, and higher population density generally have better park access. Places with higher water versus land coverage also are more likely to have more parks.

Results on Relative Measures of Park Access

Table 4 presents results from OLS regressions on the relative park access between POC and white residents within a city. Many of the factors that were found earlier to correlate with absolute access, such as city spending, the form of government, and population growth, are no longer statistically significantly associated with access disparity. This means that, on average, changes in park access associated with these factors are statistically similarly distributed across racial/ethnic groups.

[Table 4 about here]

While earlier findings show that the density of park-supporting nonprofits increases the general access to public parks, results in Table 4 indicate that the additional access associated with these nonprofits may not accrue proportionally to all racial/ethnic groups. On average, a 10-percent increase in park density is associated with a statistically significant 0.77-percentage point decrease in the POC-white access ratio. The widened gap is the largest for black residents, followed by Hispanic residents. In contrast, the association between nonprofit density and the Asian-white access ratio is not statistically significant in column 4 and is very small in magnitude. In sum, the findings provide evidence for the paradoxical roles of the nonprofit sector. While park-supporting nonprofits promote and improve public park access in a city, POC, particularly black residents, do not benefit from their work at the same rate as white residents. While our data preclude us from directly testing the mechanism behind this finding, the contrast between the absolute and relative access measures raises important distributional equity concerns: while public park provisions are not zero-sum across groups, widened distributional inequity is possible even with an increased service provision if the additional services are not proportionally accrued to different racial/ethnic groups.

Racial segregation may to some extent mitigate access disparity. As POC concentrate in an area, it may be easier for governments to target these areas for services and also for residents to mobilize and advocate for targeted public services. The empirical results show that not only is racial segregation positively associated with the absolute access of POC groups, it also positively correlates with POC's relative access to parks. The association is statistically significant for blacks and Hispanics but is negative and statistically significant for Asians.

Interestingly, the percent of county residents voting Democrat is negatively associated with the POC-white access ratio, suggesting that while left-leaning communities are more likely

to provide more park services, the additional services are disproportionately accessible to white residents. The percent of white residents is negatively associated with POC residents' relative access, likely reflecting the weakened political and civic voice of a small POC group.

Quantile Results on Relative Measures of Park Access

Quantile regression results in Figure 2 show the association between park-supporting nonprofit density and the different relative access measures across the distribution of relative access. Panel A focuses on the POC-to-white access ratio, where the x-axis shows the deciles of the ratio and the y-axis presents the quantile regression coefficient estimates of nonprofit density from a specific decile. For cities in the bottom decile of the POC-to-white access ratio, that is, where distributional equity is low, there is no statistically significant association between nonprofit density and park-access equity and the point estimate is very close to zero. For cities in other deciles, however, nonprofit density is consistently and negatively associated with distributional equity. Because the median of the POC-to-white access ratio is around one, the results show that nonprofit density discourages distributional equity even in cities with a lack of equity (estimates statistically significant in the third and fourth deciles) except for those with the most inequity (estimates statistically insignificant in the first and second deciles).

[Figure 2 about here]

Panel B shows a similar association between nonprofit density and the black-to-white access ratio, but the standard errors are quite large. The coefficient estimate of nonprofit density is consistently negative, even in cities that lack black-to-white park access equity, suggesting that benefits brought by park-supporting nonprofits do not accrue equally to black and white residents. But the estimate is only statistically significant at the third decile. The negative coefficient estimates hold for the Hispanic-to-white access ratio, but are statistically indistinguishable from zero for all first four deciles and are smaller in magnitude as compared to that of the black-to-white ratio. Panel D shows a very different picture for Asian residents, with the estimates very close to zero throughout the distribution of the dependent variable. The nonprofit density is even positively associated with the Asian-to-white access ratio at the first four deciles, despite being statistically insignificant.

Discussion

The distributional impacts of the nonprofit sector do not only depend on who receives services provided by the nonprofit. As nonprofits play an increasingly important role in financing and designing public services, it is imperative to develop better theories to assess how the nonprofit sector may influence the distribution of public services. In this explorative study of public park services in the U.S., we find a noticeable pattern between nonprofit density and public service access by different racial/ethnic groups. We also find important structural and underlying social forces that shape public service access. In this section, we discuss how these findings contribute to the existing literature and their implications for practice.

First, built on existing literature that finds multiple ways through which nonprofits influence governments' service provision and budgetary decisions (Cheng 2019a; Fyall 2016; Marwell et al. 2020; Mosley 2012), our findings support the proposition that nonprofits are not just the agent or tools of the government but can influence the government's resource allocation through multiple mechanisms. Nonprofits serve as critical actors in the urban governance process to shape which communities or subgroups of the population may have better access to public services (Levine 2016). As scholars pay increasing attention to advancing representative bureaucracy in ensuring more equitable public service provision (Headley et al. 2021), the political and representative roles of nonprofit and community-based organizations should be integrated into their main theoretical framework and empirical investigations. While park-supporting nonprofits seem to promote the overall public access to parks and improve the performance of city parks systems (Cheng, Shi and Simon 2021), they may further inequities in public park access between the white and POC communities. There may be a "dark side" of the nonprofit sector as their activities are more in-group oriented (Ben-Ner forthcoming, 1). The supply-side factors or the organizing capacity of local communities in forming nonprofit organizations are often in contradiction to the desirable roles the society expects the nonprofit sector to play.

Second, contrary to existing studies which suggest that the nonprofit sector is in the best position to address equity-related issues as compared to the public and private sectors (Andrews and Entwistle 2010), our findings suggest that local governments play an indispensable role in ensuring equitable service provision. By regressing park access on nonprofit density, forms of local governments, and the level of public spending on parks services, we assess the importance

of different types of institutions on racial equity in public service provision. While a higher level of public spending on parks and a council-manager form of government correlates with better park access across different racial/ethnic groups, they do not have a statistically significant association with the disparity between whites and POC groups within a city. These findings indicate that local government investments have a more neutral impact on racial/ethnic equity compared to nonprofit organizations, which also speaks to the importance of governmental institutions in safeguarding racial/ethnic equity in public service provision (Frederickson 1990; Gooden 2015a; Kettl 2015). While government spending is not statistically significantly correlated with the relative measure of access at the mean, quantile regression results⁷ show that government spending promotes intergroup equity when POC have worse park access than whites. Transformative actions are needed inside government to reduce the existing patterns of racial inequity in public service access (Gooden 2015b).

Finally, we find important social and structural forces that shape the distributional equity in public service by different racial/ethnic groups. Contrary to the expectation that segregation may aggravate racial/ethnic inequity, we find that residential segregation is positively correlated to park access (except for Asians). This finding may be surprising to public management scholars. However, in urban planning and environmental studies, scholars have also found a similar positive correlation. In a meta-analysis of race and urban forest cover, Watkins and Gerrish (2018) found a consistent pattern of better equity in urban forest cover in more segregated cities. In the context of park services, residential segregation may make it easier for local governments to target one POC group in their park planning efforts. However, due to the lack of data on park quality, we do not know whether parks in a POC-dominated neighborhood are of the same

quality compared to a park in a white-dominated neighborhood. More research is needed to understand this pattern between residential segregation and park access.

From a policy-making perspective, our findings indicate that race-neutral policies and programs are not sufficient at remedying racial disparities, which is consistent with findings from other research (Myers and Ha 2008). An increase in net social gains does not necessarily mean that benefits are equitably distributed, and therefore the end goal of social equity to “either maintain or create a level playing field” (Norman-Major 2011, 238) is not guaranteed. In communities where POC have been systematically denied public service in the past, there needs to be race-specific interventions and policies in place to make sure the involvement of non-governmental actors does not continue widening the gap (Nisbet and Schaller 2019).

For nonprofit managers, such interventions could be to incorporate racial equity in their missions, visions, and goals, to diversify the leadership and staff and include voices of POC in decision-making, and to develop initiatives and programs that specifically benefit POC. More importantly, nonprofits could strategically mobilize resources from the government to achieve racial equity goals. For example, a group of equity-oriented park nonprofits in Los Angeles has coalesced to successfully advocate for public funding to build parks in underprivileged communities, as well as to create an urban regime with governments that deliberately embed equity goals (Rigolon 2019). Meanwhile, public managers need to be aware of the potential impact nonprofits have in widening racial/ethnic disparities. In selecting nonprofit partners, local governments should avoid legitimizing the unequal distribution of resources by narrowly favoring technical skills, academic prestige, or reputation that implicitly support Whiteness as a

credential (Solis 2020). Many local governments have established racial equity plans, such as the Racial Equity Action Plan of Minneapolis Parks and Recreation Board in Minnesota and the Five-Year Racial Equity Plan of Portland Parks and Recreation in Oregon. Results of this study indicate that measurements matter in telling the story of racial equity. Distributional equity should be highlighted in governments' racial equity plans and operationalized as concrete measures when monitoring and evaluating nonprofits' performance in public service provision.

Conclusion

This study aims at advancing our understanding of the distributional consequences of the nonprofit sector by critically assessing its connection with the distribution of public services. Situated in the context of public park services in large U.S. cities, we find that while the nonprofit sector promotes park access for all racial/ethnic groups, it is associated with more benefits to whites compared to other groups. These results offer important lessons for public managers as the equity concerns of relying on nonprofit organizations in financing and supporting public service provision is mounting (Gazley, LaFrontant, and Cheng 2020; Nisbet and Schaller 2019). From a theoretical perspective, our study articulates multiple pathways through which the represented interest by nonprofits and their influences in urban governance may jointly determine who gets better access to public services.

Our research has limitations. First, the cross-sectional nature of our research design prevents us from making a causal claim on the impact of nonprofit density on distributional equity. The correlation between nonprofit density and park access may be driven by omitted factors related

to governmental budgetary decisions and citizens' self-selection into where they live. Second, the lack of park quality data limits our claim about whether living close to a park means better park services. However, with the evidence of inequities in park acreage and park quality in the existing literature (Rigolon 2016), our findings indicate that even by measuring access with park proximity, there are important racial disparity concerns in terms of where parks are located. As more comprehensive data on park quality and acreage become available, such inequities may be further clarified. Future studies should also extend this inquiry to other public service subsectors.

Finally, due to a large number of cities and nonprofits in our sample, we are not able to delineate the specific activities played by park-supporting nonprofits and the racial composition of their workforce. There may be nonprofits focusing more on benefits for their members while others focusing on addressing systematic inequities (Rigolon 2019). There may also be nonprofits that are predominantly led by POC. Future studies could zoom in on a few cities and nonprofits to examine how different types of nonprofits play differing roles in shaping racial/ethnic equity in their communities. More qualitative studies are also needed to understand how nonprofit managers and workers navigate racial/ethnic equity both within and beyond their organizations.

In conclusion, this article presents one of the first large-scale investigations on the relationship between the nonprofit sector and distributional equity in access to public services. It contributes to the public and nonprofit management literature by proposing a framework in understanding how the nonprofit sector may influence the distribution of public services and measuring race-specific public service access in multiple ways. As the nonprofit sector continues playing

important roles in planning, designing, financing, and delivering public services, and as racial/ethnic equity concerns mount in our society, we hope this article will stimulate more scholarly attention to critically reflect on the distributional consequences of the nonprofit sector – not only the benefits they generate as direct service providers, but also the influence they have in urban governance.

Notes

1. We use the ACS 5-year Estimates because it provides comprehensive coverage of cities, regardless of their sizes.
2. Several data sources, such as the TPL data, D&D data, and ICMA data, do not provide full coverage of all cities with a population over 10,000. The excluded cities due to missing values are similar to the cities included in our sample in terms of demographics and education level, but the included cities have lower homeownership rates and longer average commute. Therefore, cautions should be taken in extrapolating the results of this study to all cities.
3. We got the complete list of park-supporting nonprofits from the author and conducted a count of park-supporting nonprofits in each NTEE code. We retained those NTEE codes that show up at least three times in the dataset. Cheng (2019b) used a combination of keyword search and content analysis of organizational websites to identify park-supporting nonprofits in the largest 150 U.S. cities. The final categories of NTEE codes we used to identify park-supporting nonprofits are as follow: A11 (Arts, Culture & Humanities - Single Organization Support), A80 (Arts, Culture & Humanities - Historical Organizations), C11 (Environment - Single Organization Support), C12 (Environment - Fund Raising & Fund Distribution), C30 (Environment - Natural Resources Conservation & Protection), C32 (Environment - Water Resources, Wetlands Conservation & Management), C34 (Environment - Land Resources Conservation), C50 (Environment - Environmental Beautification), N11 (Recreation & Sports - Single Organization Support), N12 (Recreation & Sports - Fund Raising & Fund Distribution), and N32 (Recreation & Sports - Parks & Playgrounds).
4. The nonprofit density data is from the 2018 NCCS' IRS Business Master Files, and the population data is from the ACS 2014-2018 5-year Estimates.

5. Measuring nonprofit density on the city level could lead to bias. Large cities are more likely to have nonprofit offices listed within them due to their urban advantages such as more office buildings and better connections to other organizations. They may at the same time be more likely to have better POC park access. Then by focusing on city-level nonprofits, the association between nonprofit density and POC park access could be biased upward. Measuring nonprofit density on the county level, of course, has its limitations. With the county-level measure, some cities may not be served but were counted as having park nonprofits due to being located in the county. As a result, the estimate would be biased towards zero. We opt for this more conservative estimator.
6. The dissimilarity index is calculated in the following steps. First, one calculates the percentage of a POC group in the city living in a particular tract and then the percentage of white people in the city living in that tract. Second, the absolute difference between the two percentages is computed. Lastly, the first two steps are repeated for all tracts in the city and the sum of the absolute difference from each tract is calculated. The dissimilarity index is used over the entropy index - another common indicator of racial diversity and segregation - because it directly matches our key outcome variable – park access disparity between two racial groups. The entropy index measures the overall diversity and spatial distribution of multiple racial/ethnic groups.
7. Quantile regression results on government spending are not reported but available on request.

References

- Andrews, Rhys, and Tom Entwistle. "Does cross-sectoral partnership deliver? An empirical exploration of public service effectiveness, efficiency, and equity." *Journal of public administration research and theory* 20, no. 3 (2010): 679-701.
- Banner, Rachel, Jared Mummert, and Cindy Mendoza. "Improving Systems to Achieve Equitable Park Access." *Parks & Recreation* (2019): <https://www.nrpa.org/parks-recreation-magazine/2019/october/improving-systems-to-achieve-equitable-park-access/>
- Becker, Elizabeth, and Cotton M. Lindsay. "Does the government free ride?." *The journal of Law and Economics* 37, no. 1 (1994): 277-296.
- Ben-Ner, Avner, and Theresa Van Hoomissen. "Nonprofit organizations in the mixed economy." *Annals of public and cooperative economics* 62, no. 4 (1991): 519-550.
- Ben-Ner, Avner. "The Dark Side of the Nonprofit Sector: Polarization in contemporary Society." Chapter 20 in Michael Hoelscher, Regina List, Alexander Ruser, and Stefan Toepler (eds.) *Civil Society: Concepts, Challenges, Contexts*, Springer, (forthcoming)
- Bielefeld, Wolfgang. "Metropolitan nonprofit sectors: Findings from NCCS data." *Nonprofit and Voluntary Sector Quarterly* 29, no. 2 (2000): 297-314.
- Boone, Christopher G., Geoffrey L. Buckley, J. Morgan Grove, and Chona Sister. "Parks and people: An environmental justice inquiry in Baltimore, Maryland." *Annals of the Association of American Geographers* 99, no. 4 (2009): 767-787.
- Brecher, Charles, and Oliver Wise. "Looking a gift horse in the mouth: Challenges in managing philanthropic support for public services." *Public Administration Review* 68 (2008): S146-S161. Brandtner, Christof, and Claire Dunning. "Nonprofits as Urban Infrastructure." \ In *The Nonprofit Sector Handbook, 3rd edition*, edited by Walter W. Powell and Patricia Bromley, 271-91. . Redwood City, CA: Stanford University Press, 2020.
- Cepiku, Denita, and Marco Mastrodascio. "Equity in public services: a systematic literature review." Online first at *Public Administration Review* (2021):1-14.
- Cheng, Yuan (Daniel). "Nonprofit spending and government provision of public services: Testing theories of government–nonprofit relationships." *Journal of Public Administration Research and Theory* 29, no. 2 (2019a): 238-254.
- Cheng, Yuan (Daniel). "Exploring the role of nonprofits in public service provision: Moving from coproduction to cogovernance." *Public Administration Review* 79, no. 2 (2019b): 203-214.
- Cheng, Yuan (Daniel), and Jung Ho Choi. "Dealing with Endogeneity to Understand the Societal Impact of the Third Sector: Why Should We Care and What Can We Do about It?". Online

first at *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations* (2021)
<https://doi.org/10.1007/s11266-021-00417-8>

Cheng, Yuan (Daniel), and Lang Yang. "Providing Public Services Without Relying Heavily on Government Funding: How Do Nonprofits Respond to Government Budget Cuts?". *The American Review of Public Administration* 49, no.6 (2019): 675–688.

Cheng, Yuan (Daniel), and Zhengyan Li. "Government-nonprofit Partnerships beyond the Contracting Relationship and Public Funding Allocation: Evidence from New York City's Park System." Working Paper (2021).

Cheng, Yuan Daniel, Yu Shi, and Simon A. Andrew. "Bridging charitable support and public service performance: a preliminary analysis of large US city park systems." Chapter 5 In *Performance and Public Value in the 'Hollow State'*. Edited by Kelly Leroux and Nathaniel Wright. Edward Elgar Publishing 2021.

Clotfelter, Charles. "The distributional consequences of nonprofit activities." In *Who benefits from the nonprofit sector?* Edited by Charles Clotfelter, 1-23. Chicago: University of Chicago Press, 1992.

Craemer, Thomas. "Evaluating racial disparities in Hurricane Katrina relief using direct trailer counts in New Orleans and FEMA records". *Public Administration Review* 70, no. 3 (2010): 367-377.

Daniel, Jamie L., and Mirae Kim. "Creative Placemaking: Creating Change by Building Partnerships." *Journal of Public and Nonprofit Affairs* 60, no.1 (2020): 96-110.

Denhardt, Robert B., and Janet Vinzant Denhardt. "The new public service: Serving rather than steering." *Public Administration Review* 60, no. 6 (2000): 549-559.

Fording, Richard C., Joe Soss, and Sanford F. Schram. "Devolution, discretion, and the effect of local political values on TANF sanctioning." *Social Service Review* 81, no. 2 (2007): 285-316.

Frederickson, H. George. "Public administration and social equity." *Public Administration Review* 50, no. 2 (1990): 228-37.

Frederickson, George. "The state of social equity in American public administration." *National Civic Review* 94, no. 4 (2005): 31-38.

Fyall, Rachel. "The power of nonprofits: Mechanisms for nonprofit policy influence." *Public Administration Review* 76, no. 6 (2016): 938-948.

Garrow, Eve E. "Does race matter in government funding of nonprofit human service organizations? The interaction of neighborhood poverty and race." *Journal of Public Administration Research and Theory* 24, no. 2 (2014): 381-405.

- Gazley, Beth, Chantalle LaFontant, and Yuan (Daniel) Cheng. "Does coproduction of public services support government's social equity goals? The case of US state parks." *Public Administration Review* 80, no. 3 (2020): 349-359.
- Gazley, Beth, Yuan (Daniel) Cheng, and Chantalle LaFontant. 2018. Charitable Support for U.S. National and State Parks through the Lens of Coproduction and Government Failure Theories. *Nonprofit Policy Forum* 9(4): 1– 15.
- Gooden, Susan T. "Addressing racial disparities in social welfare programs: Using social equity analysis to examine the problem." *Journal of health & social policy* 22, no. 2 (2006): 1-12.
- Gooden, Susan T. "PAR's social equity footprint." *Public Administration Review* 75, no. 3 (2015a): 372-381.
- Gooden, Susan. *Race and social equity: A nervous area of government*. London; New York: Routledge, 2015b.
- Gooden, Susan T. Social Equity and Evidence: Insights from Local Government. *Public Administration Review*, 77, no.6 (2017): 822–828.
- Grønbjerg, Kirsten A., and Laurie Paarlberg. "Community variations in the size and scope of the nonprofit sector: Theory and preliminary findings." *Nonprofit and voluntary sector quarterly* 30, no. 4 (2001): 684-706.
- Guo, Chao, Barbara A. Metelsky, and Patricia Bradshaw. "Out of the shadows: Nonprofit governance research from democratic and critical perspectives." In *Nonprofit Governance*, pp. 63-84. Routledge, 2013.
- Guy, Mary E., and Sean A. McCandless. "Social equity: Its legacy, its promise." *Public Administration Review* 72, no. s1 (2012): S5-S13.
- Harnik, Peter, and Abby Martin. "*Public Spaces/Private Money: The Triumphs and Pitfalls of Urban Park Conservancies*." Washington, DC: Trust for Public Land, 2015.
- Headley, Andrea M., James E. Wright, and Kenneth J. Meier. "Bureaucracy, democracy, and race: the limits of symbolic representation." *Public Administration Review* 81, no. 6 (2021): 1033-1043.
- Heckler, Nuri. "Whiteness and masculinity in nonprofit organizations: Law, money, and institutional race and gender." *Administrative Theory & Praxis* 41, no. 3 (2019): 266-285.
- Hero, Rodney E. "Social capital and racial inequality in America." *Perspectives on Politics* 1, no. 1 (2003): 113-122.
- Kettl, Donald F. "The job of government: Interweaving public functions and private hands." *Public Administration Review* 75, no. 2 (2015): 219-229.

- Leon-Moreta, Agustin, Vittoria R. Totaro, and David S. Dixon. "Social heterogeneity, local capacity, and urban parks: Evidence from US cities." *Cities* 99 (2020): 102588.
- Liang, Jiaqi, Sanghee Park, and Tianshu Zhao. "Representative Bureaucracy, Distributional Equity, and Environmental Justice." *Public Administration Review* 80, no. 3 (2020): 402-414.
- Marwell, Nicole P. "Privatizing the welfare state: Nonprofit community-based organizations as political actors." *American sociological review* 69, no. 2 (2004): 265-291.
- Marwell, Nicole P., Erez Aharon Marantz, and Delia Baldassarri. "The microrelations of urban governance: Dynamics of patronage and partnership." *American Journal of Sociology* 125, no. 6 (2020): 1559-1601.
- Massey, Douglas S. "American apartheid: Segregation and the making of the underclass." *American journal of sociology* 96, no. 2 (1990): 329-357. Myers, Samuel L., and Inhyuck Ha. *Race neutrality: Rationalizing remedies to racial inequality*. Rowman & Littlefield, 2018.
- Meier, Kenneth J. "Theoretical frontiers in representative bureaucracy: New directions for research." *Perspectives on Public Management and Governance* 2, no. 1 (2019): 39-56.
- Meier, Kenneth J., Robert D. Wrinkle, and Jerry L. Polinard. "Representative bureaucracy and distributional equity: Addressing the hard question." *The Journal of Politics* 61, no. 4 (1999): 1025-1039.
- Mosley, Jennifer E. "Keeping the lights on: How government funding concerns drive the advocacy agendas of nonprofit homeless service providers." *Journal of Public Administration Research and Theory* 22, no. 4 (2012): 841-866.
- Nelson, Ashlyn Aiko, and Beth Gazley. "The rise of school-supporting nonprofits." *Education Finance and Policy* 9, no. 4 (2014): 541-566.
- Nisbet, Elizabeth, and Susanna Schaller. "Philanthropic Partnerships in the Just City: Parks and Schools." *Urban Affairs Review* 56, no. 6 (2020): 1811-1847.
- Nicholls, Sarah. "Measuring the accessibility and equity of public parks: A case study using GIS." *Managing leisure* 6, no. 4 (2001): 201-219.
- Norman-Major, Kristen. "Balancing the Four E s; or Can We Achieve Equity for Social Equity in Public Administration?." *Journal of Public Affairs Education* 17, no. 2 (2011): 233-252.
- Paarlberg, Laurie E., and Sheldon Gen. "Exploring the determinants of nonprofit coproduction of public service delivery: The case of K-12 public education." *The American Review of Public Administration* 39, no. 4 (2009): 391-408.
- Paarlberg, Laurie E., and Samantha Zuhlke. "Revisiting the theory of government failure in the face of heterogeneous demands." *Perspectives on Public Management and Governance* 2, no. 2 (2019): 103-124.

- Percival, Garrick L. "Ideology, diversity, and imprisonment: Considering the influence of local politics on racial and ethnic minority incarceration rates." *Social Science Quarterly* 91, no. 4 (2010): 1063-1082.
- Pincetl, Stephanie. "Nonprofits and park provision in Los Angeles: An exploration of the rise of governance approaches to the provision of local services." *Social Science Quarterly* 84, no. 4 (2003): 979-1001.
- Prottas, Jeffrey Manditch. "The cost of free services: Organizational impediments to access to public services." *Public Administration Review* (1981): 526-534.
- Reckhow, Sarah, Davia Downey, and Joshua Sapotichne. "Governing without government: Nonprofit governance in Detroit and Flint." *Urban Affairs Review* 56, no. 5 (2020): 1472-1502.
- Rigolon, Alessandro. "A complex landscape of inequity in access to urban parks: A literature review." *Landscape and Urban Planning* 153 (2016): 160-169. Rigolon, Alessandro. "Nonprofits and park equity in Los Angeles: A promising way forward for environmental justice." *Urban Geography* 40, no. 7 (2019): 984-1009.
- Rigolon, Alessandro, and Stephen Gibson. "The role of non-governmental organizations in achieving environmental justice for green and blue spaces." *Landscape and Urban Planning* 205 (2021): 103970.
- Roch, Christine H., and Jason Edwards. "Representative bureaucracy and school discipline: The influence of schools' racial contexts." *The American Review of Public Administration* 47, no. 1 (2017): 58-78.
- Schroeder, Paul, and Melanie Wilbur. *2012 national survey of bicyclist and pedestrian attitudes and behavior: volume 3: methodology report*. No. DOT HS 811 841 C. United States. National Highway Traffic Safety Administration. Office of Behavioral Safety Research, 2013. Smith, Steven Rathgeb, and Michael Lipsky. *Nonprofits for hire: The welfare state in the age of contracting*. Harvard University Press, 2009.
- Solis, Miriam. "Racial equity in planning organizations." *Journal of the American Planning Association* 86, no. 3 (2020): 297-303.
- Svara, James H., and James R. Brunet. "Filling in the skeletal pillar: Addressing social equity in introductory courses in public administration." *Journal of Public Affairs Education* 10, no. 2 (2004): 99-109.
- Taylor, Dorceta E., Sophia Paul, and Ember McCoy. "Diversity, Equity, and Inclusion and the Salience of Publicly Disclosing Demographic Data in American Environmental Nonprofits." *Sustainability* 11, no. 19 (2019): 5491.
- The Trust for Public Land. "The parks database." Accessed January 30, 2021. <https://www.tpl.org/parkserve/about>.

- Tomkin, Anastasia. "How white people conquered the nonprofit industry." *Nonprofit Quarterly*, May 26, 2020. <https://nonprofitquarterly.org/how-white-people-conquered-the-nonprofit-industry/>
- Walker, Rebecca. "Green Spaces, White Faces: White Supremacy in Progressive Era Greenspace Planning, Minneapolis Park and Recreation Board, 1910—1953." Working Paper (2021).
- Walls, Margaret. "Private Funding of Public Parks: Assessing the Role of Philanthropy." *Resources for the Future*, April 11, 2014. <https://www.resources.org/archives/private-funding-of-public-parks-assessing-the-role-of-philanthropy/>.
- Watkins, Shannon Lea, and Ed Gerrish. "The relationship between urban forests and race: A meta-analysis." *Journal of environmental management* 209 (2018): 152-168.
- Weisbrod, Burton. *The Voluntary Nonprofit Sector*. Lexington, MA: DC Heath & Co., 1997.
- Wilkins, Vicky M., and Brian N. Williams. "Black or blue: Racial profiling and representative bureaucracy." *Public Administration Review* 68, no. 4 (2008): 654-664.
- Williams, David R., and Chiquita Collins. "Racial residential segregation: a fundamental cause of racial disparities in health." *Public health reports* 116, (September-October 2001): 404-16.
- Wolpert, Julian. "The distributional impacts of nonprofits and philanthropy." In (Eds.), *Measuring the impact of the nonprofit sector*. Edited by Patrice Flynn and Virginia. A. Hodgkinson, 123-161. New York, NY: Springer, 2001.
- Wooldridge, Jeffrey M. *Econometric analysis of cross section and panel data*. Cambridge, MA: MIT Press, 2010.
- Wright, James E., and Cullen C. Merritt. "Social equity and COVID-19: The case of African Americans." *Public Administration Review* 80, no. 5 (2020): 820-826. Yandle, Tracy, Douglas S. Noonan, and Beth Gazley. "Philanthropic support of national parks: analysis using the social-ecological systems framework." *Nonprofit and Voluntary Sector Quarterly* 45, no. 4_suppl (2016): 134S-155S.
- Young, Dennis R. "Alternative models of government-nonprofit sector relations: Theoretical and international perspectives." *Nonprofit and voluntary sector quarterly* 29, no. 1 (2000): 149-172.
- Zimmerman, Rae. "Issues of classification in environmental equity: how we manage is how we measure." *Fordham Urb. LJ* 21 (1993): 633-69.

Figure 1. Relationship between Nonprofit Sector Size and Public Service Distribution

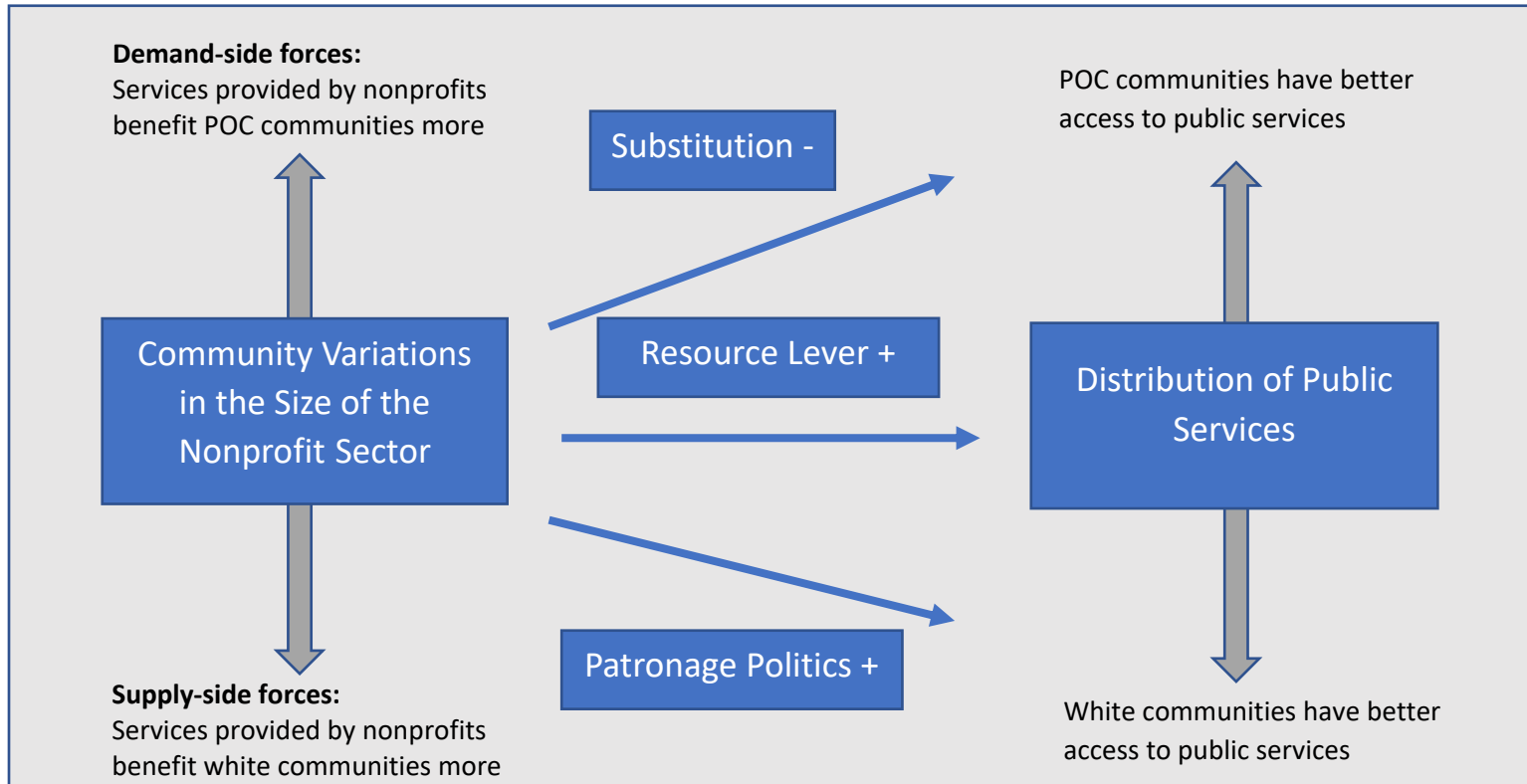
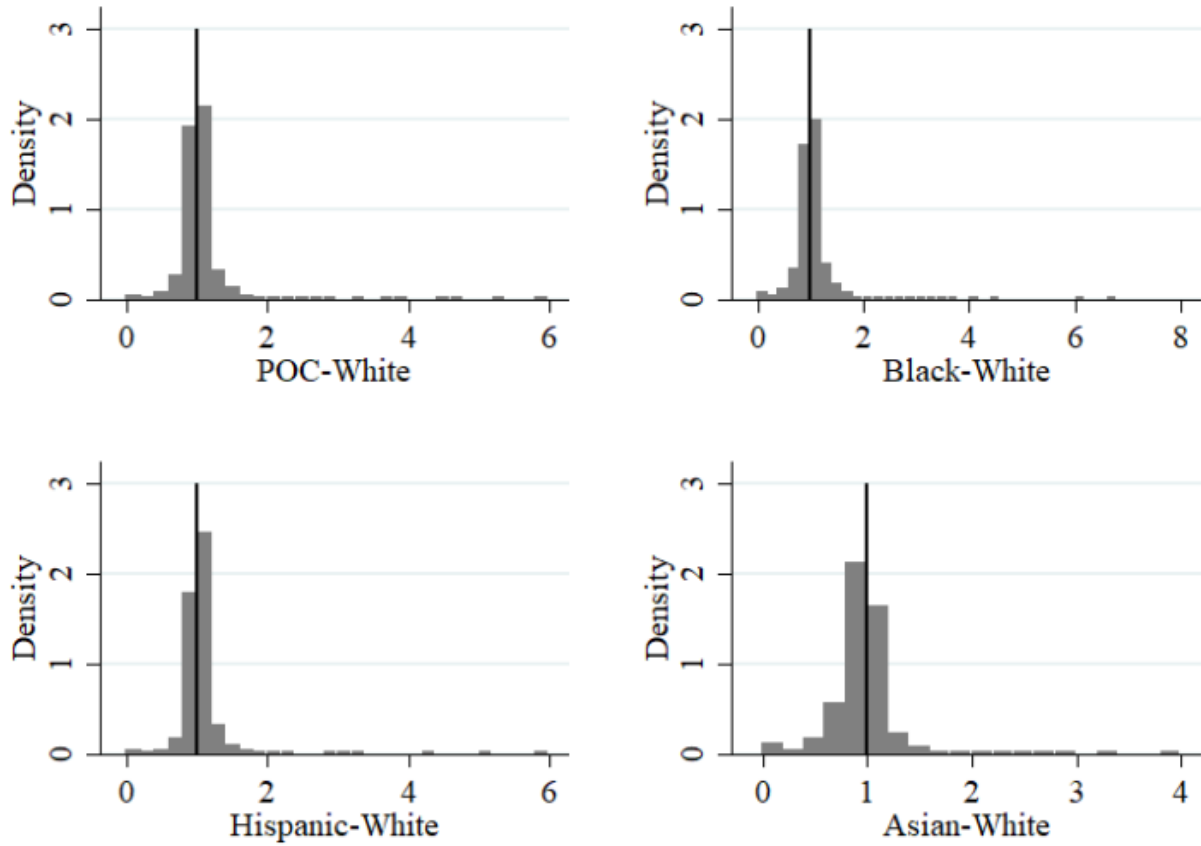
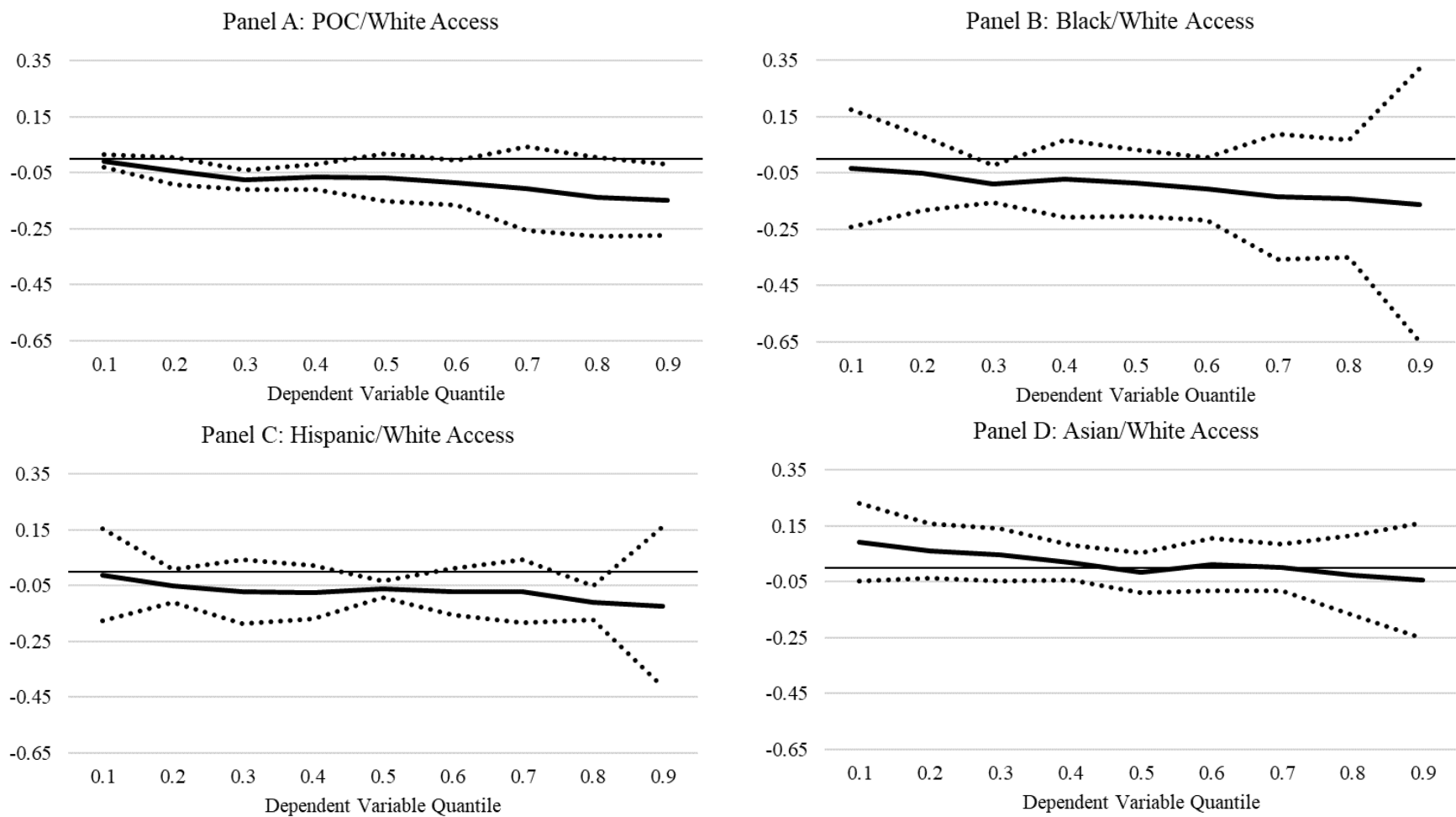


Figure 2. Histograms of Relative Measures of Park Access



Notes: Relative park access is defined as the percentage of a specific group of people of color (POC) in a city living within a 10-minute walk to a park divided by the percentage of whites living within a 10-minute walk to a park. Vertical lines at one indicate access parity.

Figure 3. Quantile Regression Estimates of Relationship between Nonprofit Density and Relative Measures of Park Access



Notes: The X-axis represents quantiles of the dependent variable shown in each graph title. Y-axis represents the coefficient estimates of log park-supporting nonprofit density. The solid line is the coefficient estimates and the dashed lines represent the 95% confidence interval based on robust standard error.

Table 1. Summary Statistics of Measures of Park Access

Dependent Variables	N	Mean	SD	Min	Max
<i>Absolute Measures</i>					
General access	2392	0.57	0.24	0.01	1.00
White access	2392	0.56	0.24	0.01	1.00
POC access	2392	0.58	0.24	0.01	1.00
Black access	2392	0.58	0.24	0.01	1.00
Hispanic access	2392	0.58	0.24	0.01	1.00
Asian access	2392	0.54	0.26	0.00	1.00
<i>Relative Measures</i>					
POC/white access	2392	1.05	0.23	0.19	3.77
Black/white access	2392	1.06	0.26	0.07	3.79
Hispanic/white access	2392	1.05	0.20	0.16	4.32
Asian /white access	2392	0.94	0.18	0.00	2.83

Notes: Absolute measure of park access is the percentage of the population within each group that live within a 10-minute walk to a park. The relative measure of park access is the ratio between the absolute measures of two groups.

Table 2. Summary Statistics of Independent Variables

Variables	Definition	Mean	SD	Min	Max
nonprofit density (log per 1,000)	Park-supporting nonprofit organizations in a county	0.09	0.13	0.00	4.20
city park budget (log pc)	City government expenditure on parks	4.17	1.38	0.00	7.64
city surplus ratio	City total revenues divided by total expenditure minus 1	0.09	1.92	-1.00	62.19
park district budget (log pc)	Spending of park special districts located in the county	1.43	1.86	0.00	5.86
county park budget (log pc)	County government expenditure on parks	2.30	1.44	0.00	6.17
council-manager form	Whether the city has a council-manager form of government	0.62	0.49	0.00	1.00
% vote Democrat	The number of votes to Democratic Party president candidates divided by the total number of votes in a county	0.47	0.16	0.07	0.88
population growth	Percent of change in city population from 2007 to 2008	0.10	0.19	-0.31	2.88
% white	Population of whites divided by the total city population	0.62	0.24	0.01	0.96
median hh income (log)	Median household income	10.99	0.38	9.88	12.43
Homeownership rate	The number of housing units that are occupied by owners divided by the total number of occupied housing units	0.60	0.14	0.14	0.98
% without college	Percent of population 25 years old and over without any college education	0.38	0.14	0.03	0.80
% drive to work	The percent of workers 16 years old and over who drive to work	0.92	0.08	0.25	1.00
% less than 30-min commute	The percent of workers 16 years old and over who travel less than 30 minutes for work	0.67	0.15	0.21	0.97
% water area	The total area of water divided by the total area	0.04	0.10	0.00	0.94
population density (log per 1,000)	Population per square meters	3.15	3.15	0.07	59.25
DWB	The percentage of blacks that would have to move across neighborhoods to be distributed the same way as whites	25.39	13.94	0.12	85.28
DWH	The percentage of Hispanics that would have to move across neighborhoods to be distributed the same way as whites	20.82	12.29	0.12	68.39
DWA	The percentage of Asians that would have to move across neighborhoods to be distributed the same way as whites	19.24	9.27	0.10	64.00
segregation	The principal component factor of DWB, DWH, and DWA	0.02	0.98	-2.00	4.41
Income gap, POC	The ratio of white per capita income to POC per capita income	1.20	0.20	0.85	2.81
Income gap, black	The ratio of white per capita income to black per capita income	1.83	1.49	0.20	45.06
Income gap, Hispanic	The ratio of white per capita income to Hispanic per capita income	1.95	0.78	0.37	15.35
Income gap, Asian	The ratio of white per capita income to Asian per capita income	1.31	0.62	0.15	7.53

Table 3. Regression Results on Absolute Measures of Park Access

	(1) General Access	(2) White Access	(3) POC Access	(4) Black Access	(5) Hispanic Access	(6) Asian Access
nonprofit density	0.076*** (0.020)	0.081*** (0.019)	0.057*** (0.021)	0.055** (0.022)	0.063*** (0.018)	0.075*** (0.016)
segregation ^a	0.006 (0.005)	0.003 (0.005)	0.013** (0.005)	0.001*** (0.000)	0.001** (0.000)	-0.000 (0.000)
income gap ^b	0.090*** (0.034)	0.091*** (0.033)	0.087** (0.034)	-0.004 (0.004)	0.003 (0.006)	0.030*** (0.007)
city park budget (log pc)	0.010*** (0.003)	0.010*** (0.003)	0.012*** (0.003)	0.015*** (0.004)	0.012*** (0.003)	0.009*** (0.003)
city surplus ratio	0.003* (0.001)	0.003* (0.001)	0.003** (0.001)	0.003*** (0.001)	0.003* (0.001)	0.003** (0.001)
park district budget (log pc)	0.003 (0.005)	0.002 (0.005)	0.003 (0.004)	0.002 (0.005)	0.002 (0.004)	0.005 (0.005)
county park budget (log pc)	0.007 (0.005)	0.007 (0.005)	0.009* (0.005)	0.008* (0.005)	0.009** (0.005)	0.009* (0.005)
council-manager form	0.035*** (0.010)	0.035*** (0.010)	0.038*** (0.010)	0.038*** (0.011)	0.035*** (0.010)	0.032*** (0.010)
% vote Democrat	0.192*** (0.056)	0.208*** (0.057)	0.146*** (0.055)	0.140** (0.056)	0.159*** (0.056)	0.207*** (0.057)
population growth	-0.106*** (0.020)	-0.105*** (0.020)	-0.112*** (0.022)	-0.117*** (0.023)	-0.108*** (0.021)	-0.108*** (0.022)
% white	0.059 (0.043)	0.080* (0.042)	0.053 (0.045)	0.016 (0.036)	0.020 (0.037)	0.008 (0.034)
median household income (log)	0.081** (0.032)	0.090*** (0.033)	0.067** (0.032)	0.049 (0.032)	0.090*** (0.032)	0.068** (0.033)
homeownership rate	-0.261*** (0.076)	-0.281*** (0.077)	-0.226*** (0.076)	-0.239*** (0.077)	-0.244*** (0.074)	-0.219*** (0.079)
% without college	0.070 (0.069)	0.075 (0.070)	0.077 (0.069)	0.020 (0.073)	0.129* (0.072)	0.027 (0.069)
% drive to work	-0.253*** (0.088)	-0.253*** (0.091)	-0.280*** (0.087)	-0.256*** (0.090)	-0.314*** (0.085)	-0.280*** (0.095)
% less than 30-min commute	0.064 (0.045)	0.045 (0.046)	0.077* (0.046)	0.074 (0.047)	0.078* (0.046)	0.036 (0.047)
% water area	0.152*** (0.034)	0.157*** (0.034)	0.130*** (0.038)	0.142*** (0.040)	0.146*** (0.037)	0.140*** (0.036)
population density	0.015** (0.006)	0.016** (0.006)	0.015*** (0.006)	0.016*** (0.006)	0.015** (0.006)	0.017*** (0.007)
R-squared	0.5330	0.5435	0.4907	0.4679	0.5161	0.5383
state dummies	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2392	2392	2392	2392	2392	2392

(a) Each regression controls for the segregation measure corresponding to the racial/ethnic groups examined in the dependent variable.

(b) Each regression controls for the income gap measure corresponding to the racial/ethnic groups examined in the dependent variable.

Notes: Robust standard errors clustered at the county level are reported in the parentheses. *p<0.1, **p<0.05, *** p<0.01.

Table 4. Regression Results on Relative Measures of Park Access

	(1) POC/White Access	(2) Black/White Access	(3) Hispanic/White Access	(4) Asian/White Access
nonprofit density	-0.077*** (0.022)	-0.093*** (0.030)	-0.054* (0.032)	-0.008 (0.023)
segregation ^a	0.029*** (0.007)	0.002*** (0.001)	0.003*** (0.001)	-0.002*** (0.001)
income gap ^b	-0.066 (0.057)	-0.004 (0.006)	0.007 (0.012)	0.034*** (0.009)
city park budget (log pc)	-0.000 (0.005)	0.002 (0.006)	0.002 (0.004)	-0.002 (0.004)
city surplus ratio	-0.000 (0.001)	-0.001 (0.002)	-0.001 (0.001)	-0.000 (0.001)
park district budget (log pc)	-0.000 (0.004)	-0.000 (0.005)	0.001 (0.003)	0.005 (0.003)
county park budget (log pc)	0.007* (0.004)	0.007 (0.005)	0.006 (0.004)	0.006 (0.004)
council-manager form	0.005 (0.009)	0.003 (0.011)	-0.003 (0.008)	-0.001 (0.008)
% vote Democrat	-0.161*** (0.060)	-0.205*** (0.071)	-0.120** (0.051)	-0.015 (0.045)
population growth	-0.020 (0.027)	-0.034 (0.031)	0.005 (0.023)	-0.017 (0.025)
% white	-0.127** (0.057)	-0.064 (0.042)	-0.003 (0.031)	-0.045 (0.042)
median household income (log)	-0.092*** (0.031)	-0.130*** (0.037)	-0.037 (0.028)	-0.085*** (0.025)
homeownership rate	0.150** (0.069)	0.100 (0.079)	0.154*** (0.056)	0.205*** (0.055)
% without college	-0.012 (0.065)	-0.179** (0.079)	0.094 (0.060)	-0.178*** (0.064)
% drive to work	-0.121 (0.089)	-0.012 (0.108)	-0.158* (0.081)	-0.139** (0.062)
% less than 30-min commute	0.057 (0.044)	-0.012 (0.056)	0.017 (0.039)	-0.032 (0.043)
% water area	-0.031 (0.044)	-0.022 (0.054)	-0.032 (0.039)	-0.012 (0.031)
population density	-0.005* (0.003)	-0.004 (0.003)	-0.004** (0.002)	0.004** (0.002)
R-squared	0.1913	0.1723	0.1219	0.0986
state dummies	Yes	Yes	Yes	Yes
Observations	2392	2392	2392	2392

(a) Each regression controls for the segregation measure corresponding to the racial/ethnic groups examined in the dependent variable.

(b) Each regression controls for the income gap measure corresponding to the racial/ethnic groups examined in the dependent variable.

Notes: Robust standard errors clustered at the county level are reported in the parentheses. *p<0.1, **p<0.05, *** p<0.01.