

**STATE FUNDING EQUITY FOR LOCAL PARKS:
WHY SOME CITIES BENEFIT MORE THAN OTHERS**

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ABSTRACT

Park and recreation resources are not uniformly available throughout the greater Los Angeles Region. With resource deficiencies shown to correlate with race, ethnicity, low-income, and higher youth populations, patterning suggests the existence of broad environmental injustice. In addressing this issue, the state of California has allocated subsidies for park development to areas of high need through competitive grant programs. Yet it is largely unknown if these programs are counteracting or contributing to further inequalities. Through a sequentially ordered mixed method design this thesis uses cross-sectional research techniques to explore who has received funding and to identify the factors involved in these outcomes.

The first sequence of research examined relationships between state grant awards obtained by cities in San Gabriel Valley against 10 suspected explanatory variables. This was done through four hierarchical multivariate regression models. The results indicate that land use, local park spending, and park need associates with these funding outcomes.

An investigation into the opinions and behaviors of local agency staff was then conducted through semi-structured interviews with city park directors. Patterns were identified in the availability of required matching contributions, practices relating to long-range park planning, differing abilities to demonstrate the capacity to carry out larger projects, and perceptions and stigmas surrounding competitive grant programs. This thesis concludes with a number of policy recommendations for improving the equity performance and suggestions for further research.

TABLE OF CONTENTS

Signature Page	ii
Acknowledgements.....	iii
Abstract.....	iv
List of Tables	vii
List of Figures.....	viii
Chapter 1. Introduction.....	1
Chapter 2. Background	4
The Role of Parks in Urban Life.....	4
Environmental Justice and Social Equity	8
Distributional Equity and Environmental Justice in Park Provisioning	15
Managing for Equity and Accountability in Grant Programs.....	21
Distributional Park Equity Research.....	29
Chapter 3. Research Design and Procedures	40
Theoretical Framework.....	45
Research Hypothesis.....	50
Data Collection Methods for the Quantitative Component	56
Sampling Procedures for the Quantitative Component	74
Data Collection Methods for the Qualitative Component	79
Sampling Procedures for the Qualitative Component	90
Chapter 4. Findings – Quantitative Data	95

Discussion of Findings from Quantitative Component	107
Chapter 5. Findings – Qualitative Data.....	111
Discussion of Findings from Qualitative Component	119
Chapter 6. Conclusion.....	123
Thesis Statement	123
Policy Recommendation	123
Limitations and Future Studies	126
Work Cited.....	129

LIST OF TABLES

Table 1. Institutional arrangements for grant contracting.....	26
Table 2. Measures from the independent variables	52
Table 3. California proposition initiatives providing funding for parks.....	57
Table 4. Summary of competitive state-administered grant programs	58
Table 5. Median household income estimates for San Gabriel Valley cities	77
Table 6. Descriptive statistics	96
Table 7. Hierarchical multivariate regression outputs	105
Table 9. Common observation codes, representative quotes, and frequency	114

LIST OF FIGURES

Figure 1. Taxonomy of equity models	16
Figure 2. “Compensatory Park Development Funding Theory” path model	48
Figure 3. Compensatory equity service provisioning disconnect	50
Figure 4. Award announcement from California Department of Parks and Recreation...	69
Figure 5. Map of population density of the San Gabriel Valley aggregated by city	75
Figure 6. Land use survey summary for San Gabriel Valley cities	76
Figure 7. Semi-structured guide for interviewing city staff.....	83
Figure 8. Example email requesting an interview	92
Figure 9. Flowchart of qualitative research sampling procedures	93
Figure 10. Competitive grant funding per capita from July 1, 2000 to June 30, 2015	97
Figure 11. Map of competitive grant funding per capita	99
Figure 12. Map of Los Angeles County park need index	100
Figure 13. Map of rough urban land use index	101
Figure 14. Map of economically disadvantaged communities	101
Figure 15. Map of park providers’ spending on services per capita	102
Figure 16. Map of city management spending per capita	103

CHAPTER 1. INTRODUCTION

Environmental justice research has historically focused on disproportionate exposure to pollution, and inequitable access to the environmental policy process, but increasingly the quality of the environment in more general terms has become an issue, particularly access to environmental amenities (Wolch et al. 29).

Parks and public recreation facilities are vital components of a livable city. The importance of these communal spaces represents a wide range of recognizable benefits such as facilitating physical fitness, providing respite from the bustle of urban life, reducing air and water pollutants through functioning natural systems, supporting economic revitalization within blighted areas, and increasing property values. Specific to children, the outdoor setting of parks is viewed as particularly valuable, allowing them to play and explore in a less restrictive manner than may be permissible at home or school.

In the greater Los Angeles region, a wealth of park and recreational resources are enjoyed by many through an abundance of recreation centers, urban playgrounds, trail systems, mountains, and beaches. Yet these important resources are not uniformly accessible to the region's inhabitants. Local parks are particularly scarce in many high-density and poorer neighborhoods where inhabitants tend to more intensely rely upon public open space due to limited access to private backyards and other non-public recreation facilities (Lawrence, Johnson, Loukaitou-Sideris). As such, the geographical disparities in access to parks are perhaps the most recognizable illustration of environmental injustice that exists within the region.

Over the past decade numerous equity studies have focused on this issue and documented geographical inequalities, finding that regional deficiencies correlate with

race, ethnicity, low-income, and the prevalence of youth populations (for example see Garcia and White; Loukaitou-Sideris and Stieglitz; Wolch et al.). Other research has identified significant differences in the amount of spending allocated to parks and recreation. Joassart-Marcelli identified that, among cities within the Los Angeles basin, municipal per capita parks and recreation expenditures are “significantly lower in poorer cities” (1181), and has further documented that the availability of public green space is most limited within low-income exurban cities and older inner-ring suburbs that have large minority populations (1189).

As parks become increasingly recognized as important environmental amenities, public policy has acknowledged the need to advance social equity and incorporate environmental justice into the provisioning of new resources. Yet the policy responses at higher levels of government have been predominantly through indirect action. The past three decades have seen the limited expansion of County and State park systems into park-poor urban communities within the greater Los Angeles region irrespective of significant population growth. Instead, a series of State and local electoral measures have allocated funding to parks and recreation development, enhancement, and rehabilitation, often advertising the intent to address social equity by prioritizing investment toward “disadvantaged communities” and critically underserved areas through targeted grant programs. In practice, the administration of these funds is often dominated by competitive allocation processes meant to provide accountability for the expenditure of public funds, which is seemingly at the expense of environmental justice. Highlighting this point, researcher Joassart-Marcelli concluded a 2009 equity study by stating: “Although the State of California has several grant programs in place to provide local

assistance, these grants... appear to have little effect on reducing [park] disparities between cities” (1189).

Identifying that competitive grant programs may be ineffective at delivering compensatory investments in areas of critical need, this study seeks to analyze the performance of State programs subsidizing local park and recreation facilities. This is a particularly relevant topic as these grant programs continue to be the primary policy action used by the California government. The specific aims of this study are to pragmatically evaluate this policy approach, and generate theories that describe causal mechanisms of the observed variation in “who gets what” in terms of grant subsidies. A sequentially ordered mixed method design is used. Inductive quantitative research is first accomplished through a retrospective cross-section exploratory study. The purpose is to identify the validity of suspected statistical correlations among relevant variables. Then, the second sequence seeks to refine and further describe possible causal theories related to the observed phenomenon. This is done through deductive qualitative research that uses cross-sectional interview methods to gather information to support a latent content analysis.

To introduce this topic, including pertinent concepts, the next section presents contextual information and background, including concepts that support the development of the topic’s theoretical framework. Hypotheses and procedures stemming from this framework are then presented, including a detailed description of sampling processes, data collection, and analysis. Findings are then presented and discussed prior to concluding with a presentation of relevant implications of the study to improving equity outcomes in providing park and recreation resources.

CHAPTER 2. BACKGROUND

The following provides background on the topic of this thesis study including relevant literature, theories, and key definitions and terminology. Serving as a literature review, this chapter is also intended to ground the study topic within the work of others. Discussion is organized into five sub-sections that serve to: 1) define a *park* as it relates to this investigation, and to highlight the social, environmental, and economic importance of parks; 2) introduce the interrelated topics of environmental justice and social equity; 3) describe how distributional equity in park access is an important environmental justice issue focused on identifying need and distributing environmental benefits and resources to overcome environmental burdens; 4) provide a relevant review of competitive granting administration literature, particularly in terms of the tradeoffs between equity and accountability for delivery of services; and 5) present equity-based research of others, including methodological examples drawn upon for this research.

The Role of Parks in Urban Life

Parks are important features in the urban environment, providing a broad range of benefits to city dwellers. The literature on the benefits of park and public green spaces is expansive, covering a wide range of topics. Yet there is no universal definition of what is a park. This is likely due to the high degree of diversity in use of the term, varying by community and cultural norms. For example, some parks may feature community centers; facilities and spaces for social welfare programs such as child and elderly care, while others do not. Likewise, many parks are designed to facilitate recreation, while the purpose of others is to preserve and interpret historical, cultural and natural resources. Other designations may simply exist to preserve open spaces in the public trust with

recreation considered as a secondary use. Parks may also be privately owned, such as sports parks, and may or may not be available to members of the general public without an admission fee.

Nevertheless, many common elements help to identify a working definition. Parks typically contain trees, shrubs, meadows, and lawns, and may also include water features such as fountains, creeks, rivers, ponds, and lakes. Parks also commonly provide for one or more recreational activity that include active uses like sports and passive uses such as picnicking, bird watching, and silent contemplation within a natural setting. Active uses can also include outdoor play, walking and hiking, bicycling, and swimming. Some parks even serve to periodically host special uses, such as fairs and festivals. While the range of elements and uses inhibits a singular pragmatic definition, a working meaning is put forth in this thesis in order to communicate a specific concept. As described therein, parks are publicly accessible lands designed to be attractive through the inclusion of plant materials, and operated for recreational purposes, or for the preservation of open space and unique landscapes with the inclusion of one or more recreational component.

One of the key arguments for parks as critical public infrastructure revolves around recreational amenities. These amenities are the source of many direct public health benefits. Community members' access to parks has been documented as relating directly to increased physical activity levels and improved health outcomes (Rosenberger et al.). As a more specific example, research by Powell et al. has documented a positive relationship between the conveniences of walking places within close-to-home parks with higher levels of self-reported physical activity among nearby residents. A similar association has also been found among young children. Roemmich et al. studied children

aged 4 to 7-years-old living in Erie County, New York, and determined that neighborhoods with a greater proportion of park areas were associated with greater physical activity among the study participants. Another study of eight park sites located in minority communities within the city of Los Angeles found that exercise levels were predicted by the proximity of users' residences (Cohen et al.).

There are also numerous social and psychological benefits associated with urban nature and urban greening which are sustainably sustained by parks. Literature suggests that greenery in an urban setting offers a range of benefits including the promotion of peacefulness, and reduced social aggression and crime. As identified by Chiesura, people visiting Vondelpark in Amsterdam primarily did so for relaxation, and to escape from the city (131-133). Other published research has documented that social interaction between neighbors and community members is enhanced by natural landscapes. An observational study of outdoor spaces surrounding two Chicago public housing projects identified that trees and natural landscaping attracted larger groups of people with more diversity in age than similar public spaces devoid of nature (Coley, Kuo, and Sullivan 478-490). Further research on public housing in Chicago has identified a relationship between urban tree density, grassy areas, and reduced aggression, crime, and violent behavior (Kuo and Sullivan). Greenery also has been documented as associated with higher measures of cognitive function (Loukaitou-Sideris and Stieglitz; and Wells). For instance, Wells identified that low-income families relocating to surroundings with more vegetation and natural areas related positively to increased cognitive functions of 7 to 12-year-old children and that this increase was more significant than changes observed from improved housing quality.

In addition to direct health and social benefits from parks, a body of literature identifies ecosystem services provided by trees and vegetation in parks, such as air and water purification, and microclimate stabilization. For example, Bowler et al. conducted a meta-analysis showing, on average, urban parks are 0.94°C cooler in the day than surrounding urban environments. Furthermore, the findings from a study by Bowler et al. suggest that tree cover in parks can help to mitigate the consequences of increasing global temperatures resulting from climate change. Trees and vegetation can also absorb air pollution, such as particulates linked to reduced health of humans' cardiovascular and respiratory systems (Beckett et al., "Urban Woodland: Their Role in Reducing the Effects of Particulate Pollution"). Further research shows that absorption of airborne particulates by trees in the urban environment is effective in curtailing air pollution, and that the capture rates are significant across various species, including both conifers and broadleaf species that are commonly used as ornamentals within urban landscapes (Beckett et al., "Effective Tree Species for Local Air-Quality Management"). Additionally, a study of the park system and urban forest cover in Sacramento shows that trees effectively cleanse storm water runoff, particularly during smaller storm events that are responsible for most releases of water quality pollution (Xiao et al.). Parks also offer the opportunity to incorporate non-structural flood risk mitigation features in urban settings, such as detention and retention basins, contributing to the protection of life and property during flood events.

A final consideration of benefits derived from parks is economic incentives. As summarized in "Measuring the Economic Value of a City Park System," a report from Trust for Public Land, written by Harnik and Welle, public health and environmental

services derived from urban park systems have a net economic benefit (7-8, and 11-14). The report also analyzes urban parks across the United States in terms of promoting tourism, increasing property values, and generating employment (1-4). As such, economic incentives for the development of park systems can be seen as analogous to public investments in transportation, utilities, and affordable housing.

Environmental Justice and Social Equity

To consider environmental justice within the context of providing parks and distributing park funding assistance to cities and other local service providers, one must first consider how the definition of environment relates to justice. Traditionally, the environment is often seen as encompassing only those things that are separate from humanity, such as the view presented within the environmentalist philosophy that represents an ideology concerned with the wellbeing of all non-human elements. However, as seen in the literary discussion of environmental justice, the construct of the environment is increasingly inclusive of humankind and its welfare. This evolution is inherently linked to the increasing consideration of justice, fairness, and equity in government and corporate policies and actions, and in the geographical distribution of benefits, burdens, and environmental externalities within the urban setting. Central to environmental justice considerations, it is understood that communities do not uniformly reap environmental benefits, or incur burdens.

As a term, environmental justice describes both a field of research within social sciences, and a social movement that is concerned with the imbalance of burdens and benefits placed on those that are of color, the poor, and those lacking political power. From a research and public policy perspective, social scientists and policy administrators

have worked to document injustices that are common to the socioeconomically disadvantaged (See, for example, the discussions presented by Bryant; Bryant and Mohai; and Bullard). Furthermore, from an advocacy perspective, grassroots organizations have formed a powerful social movement that promotes political action toward equity and autonomy within local communities and neighborhoods, commonly referred to as the “Environmental Justice Movement.”

The Movement is grounded in contemporary environmentalism that began in the late 1950s as a response to increasing concerns about pollution and public health dangers. Rachel Carson’s book, *Silent Spring*, released in 1962, was among the first catalysts for establishing the public’s interest in environmentalism (Heinz 47-49). However, even with a focus on pollution and urban issues, the early environmentalism movement lacked the interest and engagement of minority groups, particularly those living in poorer urban communities (Melosi 7-14). It was not until the 1980s when political activism tactics from the 1960s Civil Rights Movement were used to frame a race and class informed approach to environmentalism (Heinz 48-51) that issues of environmental justice began to gain attention.

One of the first widely recognized engagements of concerned residents and activists took place in 1982 during a large civil disobedience protest in Warren County, North Carolina. The objections of citizens over state officials’ siting of a landfill for the disposal of highly toxic polychlorinated biphenyls (PCBs) gained national attention when they attempted to block access roads (Geister and Waneck 13). Their concerns largely centered on the perception that the officials’ decision to site the landfill was made based on the socioeconomic characteristics of the surrounding residences, which was lower-

income and predominately African-American (Geister and Waneck 16). Although Warren County residents failed to prevent the landfill from being completed, the arrest of over 500 protesters represented a powerful use of citizen action in an effort to defend environmental quality as a matter of civil rights.

The “Environmental Justice Movement” has since continued, becoming particularly relevant in the Los Angeles region due to a history of environmental racism and environmental inequality – terms which will be subsequently defined. Within the greater Los Angeles region, there are numerous examples of citizen organizations working on environmental justice-related issues. The 2014 Presidential Proclamation of the San Gabriel Mountains National Monument was largely attributed to the actions of a coalition of advocates known as San Gabriel Mountains Forever, comprised of self-described environmental justice organizations such as The City Project, the Asian Pacific Policy & Planning Council, and the Council of Mexican Federations, working with contemporary environmentalist organization such as the Sierra Club and The Wilderness Society in an effort to increase access and protection of the San Gabriel Mountains, its rivers, and urban parks within the region (“About SGMF”). The significance of the Monument designation in terms of environmental justice was underscored by President Barack Obama in his establishing proclamation where he recognized that “In a region with limited open space, the mountains are the backyard of highly urbanized and culturally diverse populations within Los Angeles.”

Outside of civil advocacy, the prevailing concept of environmental justice is an expansive academic topic with many divergent characterizations. These differences are due to the wide range of meaning held by various communities and institutions, which

are documented by distinct definitions that they have given to this term. As an example, California planning law (Government Code Section 65040.12(e)) offers the following definition:

“Environmental Justice” means the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies.

The emphasis in this definition is placed on *fair treatment*. As such, it can be argued that state planning policy is primarily concerned with procedural and process-oriented justice. Or rather, that environmental justice is achieved when rulemaking and enforcement procedures provide equal protection and benefits. Yet other definitions focus on distributional justice, or rather the actual spread of environmental benefits and burdens to individuals and communities across the landscape. In his book, *Environmental Justice*, Bunyan Bryant provides a definition that is focused on a distributional perspective:

[Environmental justice] is an extension of racism. It refers to those institutional rules, regulations and policies of government or corporate decisions that deliberately target certain communities for least desirable land uses, resulting in the disproportionate exposure of toxic and hazardous waste on communities based upon prescribed biological characteristic (6).

Bryant describes distributional justice by referencing the location of land uses. His concept of environmental justice, as identified in 1995, is also narrower, concerned with the exposure to environmental hazards, and the standards and treatment of people regarding protection from health impacts. Showcasing the evolution of environmental justice theory, more recently authored definitions encompass the consideration of both environmental hazards and benefits, citing deliberate intention to site desirable land uses, such as parks, outside of low-income, minority-dominated, or politically disenfranchised communities.

While definitions link this topic to public policy, they do so by offering two divergent viewpoints. One of the distinct paradigms of environmental justice is focused on equity and equality while the other is concerned with autonomy (“Environmental Justice”). The acquisition of environmental justice under these two theoretical paradigms differs. Those operating under the first paradigm that focuses on equity and equality, consider environmental justice as the equitable distributions of benefits, protections, and hazards to all absent of the cultural interest and desires of any given community. Relating to the topic of subsidizing local funding for park development, this view considers environmental justice as the distribution of funding to equalize benefits and hazards.

In contrast, the latter autonomy paradigm is focused on community-driven decision making and self-governance over local environmental issues. Peña discusses this model in terms of thinking and acting locally, and ensuring that local residents have a political voice in decision making that affects their environment (153-174). In regards to grants for park development, the notion of autonomy is relevant in terms of allowing local service providers the freedom to advance community-informed park plans and priorities without having to incorporate irreconcilable design standards and other outside interest imposed by a funding source. In other words, autonomy is infringed when service providers, such as city governments, make the decision to alter the scope of a project in order to improve the chances of receiving funding assistance through a competitive process. As a hypothetical example, a state-administered grant program may disallow turf grass installation as an eligible cost in an effort to promote water conservation, which may prompt a city seeking funding assistance for a new park to remove a planned lawn

element that specifically responded to community members' desire for an informal sports field.

In addition to different paradigms, the topic of environmental justice is also plagued with commonly misused terminology. To provide clarification Pellow developed a theoretical model referred to as "environmental inequality formation." He uses this model to differentiate environmental justice from environmental racism, and environmental injustice or environmental inequity (581-583), terms that are often used interchangeably with little attention to the difference behind these concepts. As described by Pellow, environmental racism is focused on disproportionate environmental burdens placed on a racial group, typically referring to communities of color, while environmental justice is more broadly concerned with improving the quality of life to those that are socially marginalized, including the poor, as well as racial and ethnic minorities (581-82). More so, environmental inequality is focused on the relationship between social class and environmental burdens and addresses more structural questions about power and resources in society (Pellow 582-83). In other words, environmental racism is only focused on environmental hazards, and the burdens placed on racial groups, while environmental inequity is more broadly concerned with the unequal distribution of burdens and benefits to groups in lower socioeconomic classes, or who are more vulnerable and have less political power. Finally, environmental injustice is what activists fight against while environmental justice refers to cultural norms and behaviors and policies that people value and fight to achieve (Bryant; and Pellow 582).

In practice, public policy mandates regarding environmental justice serve to disclose and focus attention on the effects that agencies' actions have on disadvantaged

and vulnerable communities. The catalyst of these emerging directives can be attributed to President Clinton's 1994 signing of *Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*. Solidifying environmental justice as an important value and belief, the Executive Order directs federal agencies to "make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations." Governments at all levels are increasingly incorporating similar directives, requiring agencies to adopt specific strategies, such as requiring equal access to all in the decision-making processes

With the notion of environmental justice focused on achieving concepts of fairness and justice in decision-making that affects environmental conditions, a significant overlap exists with the theory of social equity. The term social equity largely arose in the 1960s (Johnson 471), alongside the upsurge of the modern environmental era and civil rights movements. Today it is acknowledged as a key theoretical concept within the study of public administration, standing alongside the concept of the public interest, virtue, citizenship theory and others (T. Cooper 396-397). To describe this theoretical concept, a useful definition has been put forth by the Standing Panel on Social Equity in Governance, established by the congressionally chartered National Academy of Public Administration:

[Social equity is] the fair, just and equitable management of all institutions serving the public directly or by contract; the fair, just and equitable distribution of public services and implementation of public policy; and the commitment to promote fairness, justice, and equity in the formation of public policy. ("Social Equity in Governance")

In comparing this definition with those of environmental justice, a linkage is seen between the aspiration for fairness and justice in land-use decisions and in the distribution of public services. Documented case studies, such as the disposal of PCDs in the Warren County landfill, serves to identify how social equity is tied to environmental justice through land use decisions. For example, the planning decisions made regarding the siting of the Warren County landfill are a product of environmental racism while at the same time being socially unjust.

Distributional Equity and Environmental Justice in Park Provisioning

With respect to distributional equity, such as the dispersal of parks over a geographical region, the primary question raised by the theory of social equity is “Who gets what?” or, normatively, “Who ought to get what?” (Campbell 556-60; and Wicks and Compton 172-75). This question is more than a matter of who should receive park resources, but about who should receive the associated benefits. The correct answers are subjective and open to multiple, often competing interpretations (Nicholls 202-203). To further discuss this subjective topic, and to illustrate a range of viewpoints on distributional equity in allocating public resources, Figure 1 presents a classification as identified by others.

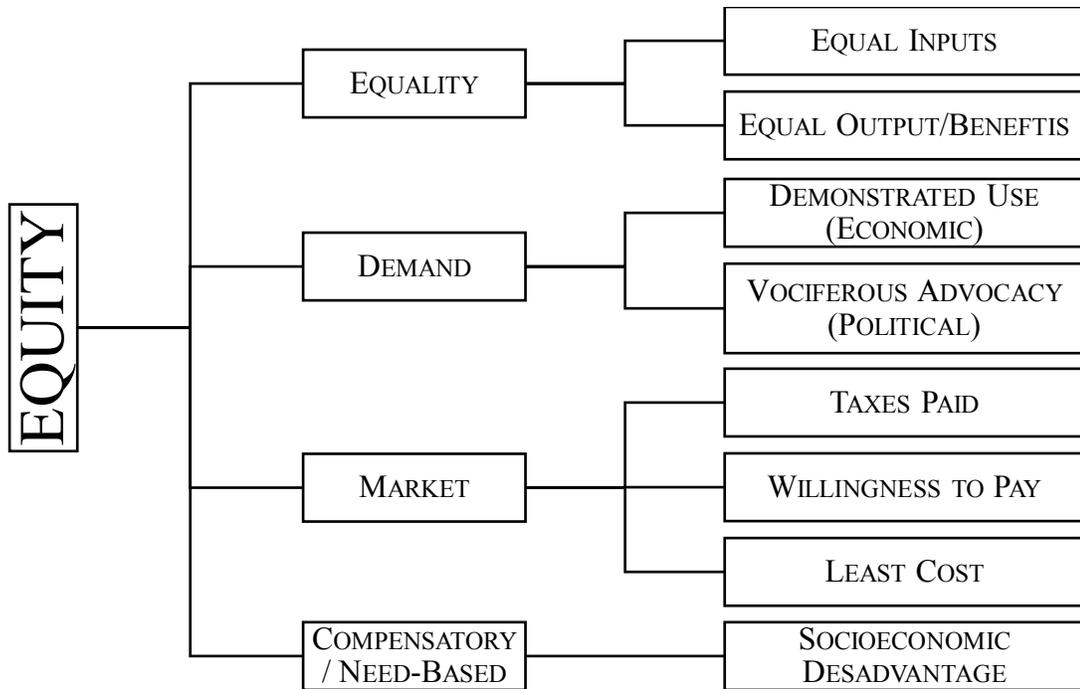


Figure 1. Taxonomy of equity models (Nicholls 202-04 as based on Lucy; and Wicks and Crompton 172-175)

This taxonomy is a useful guide for explaining and relating alternative social equity concepts. For instance, as shown in Figure 1, equity through equality can be considered in two different ways. Input equality seeks uniformity in the delivery of public goods and services and disregards geographical or socioeconomic characteristics. Such an approach is analogous to the notion of horizontal equity (Patton, Sawicki, and Clark 192), or the provisioning of equivalent resources to all areas, or to all people, to provide equal opportunity. In grant programs, the use of allocation formulas that distribute resources to cities based on inputs, such as fees collected, demonstrates this model of equity. In contrast, output equality is achieved through the distribution of goods and services to those in unequal circumstances (Patton, Sawicki, and Clark 192), or rather equality is considered in terms of outcome after the receipt of services or resources

(Lineberry and Welch 709). This is a common stance used within park equity studies, where researchers often look for equal delivery of park space and access within a study area to determine if disparities or differences exist.

Demonstrated use, or the vocal interest of groups in obtaining services or amenities, such as park and recreational facilities, are alternative ways to consider equity. This demand-based equity concept is analogous to the economic model in which more services and goods are produced when demand is demonstrated (Nicholls 203). For instance, equity through demand is demonstrated when elected officials are encouraged by community members or special interest to specify funding to specific projects. Notably, economically disadvantaged communities often lack connections to formal networks and civic institutions (Antos et al. 4). Thus, members of these communities may struggle to effectively voice their demands through established political systems.

The distribution of services and goods through market determination is another notion of equity. This includes allocation methods that operate according to the least cost alternative or willingness to pay. However, these models are most often related to the commercial sector (Nicholls 204) and are seldom applied to the delivery of public goods and services with the exception of transit management, such as toll roads and parking.

As a final concept, and as the position used in this thesis, a compensatory or need-based approach is perhaps the most closely aligned with environmental justice. Grant programs that seek to invest a disproportionate amount of resources in the creation of parks within underserved, socioeconomically disadvantaged areas represent this approach. Notably, the concept implies that the disadvantaged should be treated unequally (Lucy 448). Or rather, those vulnerable communities should receive more park

resources as they are in the most need. Thus, the role of public policy is to redistribute from the more advantaged to the more disadvantaged.

Specifically relating to parks as environmental benefits, this compensatory approach can be used to address environmental inequities, such as those created by historical socioeconomic discrimination in resource allocations and land-use distribution. However, a notable pitfall of this equity approach is that the identification of the ‘needy’ is highly subjective and open to debate (Nicholls 203). For instance, a moderately wealthy community with a well-funded park system may argue that they have a high need for state government subsidies as surrounding disadvantaged community members are dependent on their park and recreation resources.

In considering the notion of equity underlying the various states of California local parks and recreation assistance programs, the specific intentions and desired outcomes of the voters and lawmakers who passed these supplemental allocations are not always clear. Yet public policy, particularly recent state-level policy, suggests that additional infrastructure investments should advance environmental justice. As a means to achieve this end, California funding priorities have recently incorporated a framework in which funding assistance is targeted toward geographical areas suffering from environmental inequities, thus establishing areas in need of compensatory investment. For instance, the passage of California Senate Bill 535 in 2012 requires that a quarter of all revenues from the state’s Cap and Trade Program benefit disadvantaged communities that are disproportionately affected by environmental burdens, and that ten percent of these revenues be directly invested in projects that are physically located within these communities. As another example, the Active Transportation Program created by Senate

Bill 99 (2013) and Assembly Bill 101 (2013) consolidated many grant programs for recreational trails and other non-motorized transportation projects. Similar to Cap and Trade, the enabling legislation for the Active Transportation Program, Senate Bill 99 (2013), requires that at least twenty-five percent of distributed funding benefit disadvantaged communities as defined through several adopted screening methods.

To support this environmental justice oriented approach, tools have also been developed to define geographical areas with disadvantaged populations. Using socioeconomic indicators as well as data that gauges exposure to environmental hazards, these tools help to determine where need-based equity investment can, theoretically, be used to most effectively address environmental injustice. As identified within the “Social Equity, Environmental Justice, & Community Resilience” chapter of the public review draft for the State of California update to the General Plan Guidelines, there are at least five data sources presently available to assist planners, public policy makers, and the public-at-large.

These include two state-wide index tools based on social, economic, and environmental indicators, including the California Communities Environmental Health Screening Tool, also referred to as CalEnviroScreen, developed by the California Environmental Protection Agency through the Office of Environmental Health Hazard Assessment, and the Regional Opportunity Index provided by the University of California, Davis Center for Regional Change (“Public Draft of the General Plan Guidelines” 246). The California Environmental Health Tracking Program and EnviroStor are two other tools created by state public health and toxic substances control agencies to identify, track, and disclose environmental hazards (“Public Draft of the

General Plan Guidelines” 246). A final tool is provided as a proportional threshold of median household income estimates from the American Community Survey conducted by the U.S. Census Bureau, in which community estimates are compared to the overall statewide value.

As they relate to need-based compensatory equity, the median household income method and CalEnviroScreen tool are both useful in distinguishing and defining underserved and vulnerable populations within specific geographical areas. For instance, the median household income method is currently used by several state-administered grant programs (for example see *2015 Guidelines: Integrated Regional Water Management Implementation Grant Program Funded by Proposition 84*). More explicitly, the California Public Resources Code defines a disadvantaged community within the context of enabling legislation for specific grant programs as meaning “a community with a median household income less than 80 percent of the statewide average” (Section 4799.09 (a) and 79505.5 (a)). A definition is also provided for a *severely* disadvantaged community: “a community with a median household income less than 60 percent of the statewide average” (Public Resources Code Section 4799.09 (b)).

The CalEnviroScreen is more complex, using a range of metrics to identify disadvantaged communities at the geographical scale of a census tract. The method deployed by this tool defines disadvantaged communities using a combination of measures, identifying census tracts for populations that are disproportionately burdened by multiple sources of pollution, as well as areas with residents that exhibit socioeconomic indicators of vulnerable populations (*California Communities Environmental Health Screening Tool, Version 2.0 (CalEnviroScreen 2.0): Guidance and*

Screening Tool). Referring once again to the legislative mandates of California Senate Bill 535, CalEnviroScreen was developed in order to identify target areas in which to focus need-based funding assistance generated from the California Greenhouse Gas Reduction Fund (*Designation of Disadvantaged Communities Pursuant to Senate Bill 535 (De Leon)*).

Managing for Equity and Accountability in Grant Programs

The administration of grant programs by public agencies is by its nature *indirect governance*. In lieu of providing park resources directly, contractual relationships are formed between a grantor, such as the federal or state government, and one or more service providers, typically including cities, other local public agencies, or non-profit organizations (Collins and Gerber 1129). In the context of grant programs for local park resources these contracted services have primarily contributed to capital improvement projects. Although less common, disbursement may also be given for ongoing park operation and maintenance. In California, the use of indirect governance has permitted state agencies to deliver expanded services with comparatively little growth of their administrative infrastructure. While state agencies have procured administrative services to oversee implementation of grant programs and compliance with grant agreements, most administrative burdens are passed off to local service providers. These passed-off demands include but are not limited to managerial support, planning and design services, construction administration, and park upkeep.

Public policy literature describes this phenomenon as state and federal devolution and privatization, in which private organizations and local governments become the primary agents in providing and managing park and recreational facilities (Joassart-

Marcelli 1175; Kettl 488-496). In the case of California, the devolution of state services not only reduces the expansion of large government bureaucracies, but arguably facilitates greater local control over the development, programming, and operations of local park facilities. Notably, this latter argument assumes that local elected officials, local government staff, and the administrators of local non-profit organizations are able to be more respectful and responsive to local community preferences than state or federal agencies. Yet, as discussed later in this section, there are also arguments that devolution can inhibit local autonomy.

Within this concept of indirect governance, the inclusion of competition is an important tool used to allocate funding and select recipients in a manner that increases accountability in the delivery of successful projects. More specifically, the use of competition maximizes efficiencies while ensuring services are provided on time and on budget (Collins and Gerber; and Lorenz). The selection of grant recipients commonly relies on evaluation metrics to rank, score, or otherwise prioritize. To facilitate this prioritization, administrators aim to solicit funding proposals that collectively request more funding than is available, using competition to drive the development of successful project proposals that are more responsive to evaluation criteria (Collins and Gerber 1130 and Lorenz 244-46). Such criteria can consider policy needs, such as providing more park access to those with the most need, but also reflects other factors including the capacity of the recipient to deliver successful projects (Collins and Gerber 1130). Due to the often-complex and reticent prioritization processes conducted by grant administrators, local municipalities with the greatest needs may be at a distinct disadvantage if they lack, or

are unable to demonstrate administrative capacity or experiential capabilities needed to advance projects (Collins and Gerber 1137).

As further described by public policy research, the emergence of competition is a response to a “quid pro quo phenomenon” that has occurred between politically-engaged special interests and public service providers, who have historically worked together to continually increase the amount of funding requested for services to meet the *ever-expansive definition of need* (Lorenz 244). This phenomenon echoes some of common criticisms of top-down spending as well as highlights the subjective concept of need. Consistent with the intent of devolution and privatization, competition has helped to control this expansion phenomenon by prioritizing limited resources more closely with policy objectives (Collins and Gerber 1128-1132).

As an example, a criteria and scoring rubric outlined within the *Application Guide for the Statewide Park Development and Community Revitalization Program of 2008*, a \$368 million grant program administered by the California Department of Park and Recreation, indicates that investments were prioritized to 1) areas that lack park space; 2) areas of significant poverty; 3) projects that create new parks or provide expansions within overused parks, as compared to the lower preference to fund creation of new recreation opportunities or renovations within an existing parks; and 4) projects using “sustainable” techniques such as water efficient irrigation, bio-swales and other runoff capture, and drought tolerant or climate appropriate native landscaping (26-40). These four priorities suggest that compensatory investment is among the policy objectives for the program. Other apparent objectives include an intent to efficiently invest in projects that provide the greatest benefits, such as the creation of new parks over improvements to

existing facilities, and secondly, the promotion of specific resource management techniques that may or may not otherwise match well with local community priorities.

In terms of scope, this use of competition in public grant contracting has been extensive since its introduction in the 1970s, increasingly making grantsmanship an important administrative skill for cities, other local governments, and non-profits (Lorenz 246). Yet, as identified by Collins and Gerber, the use of competition also diminishes social equity performance (1136), with the concept of *performance* described as the “problem of matching a policy need (rooted in an underlying social need) with a policy response” (1128). Competition requires eligible grant recipients to have the administrative capacity to compete, which can include the ability to access technical experts and skilled grant writers, as well as in having the overall ability to deliver the project and to meet the administrative requirements of grant agreements. Furthermore, Collins and Gerber suggest two specific theoretical advantages that administrative capacity offers grantors:

First, grantors can use the professionalism and complexity of proposals as a heuristic to reduce search costs associated with screening out applicants with the highest risk of failure, that is, those that lack the administrative capacity to implement grant projects. Second, grantors have incentives to allocate funding to larger proposals because this reduces monitoring cost by reducing the number of grant contracts (1131-1132).

Even with equity-focused policies that favor grant awards to under-served low-income and minority low-income communities, competitive grant administration can remain a barrier for potential grantees access to resources (Collins and Gerber 1131). A comparative lack of administrative capacity may cause potential grantees to struggle to put forth ambitious ‘shovel ready’ projects similar to those submitted by organizations working in wealthier communities who can more easily afford skilled staff and

consultants. In this way, competition theoretically introduces a bias that may diminish social equity performance in terms of distributing expenditures toward higher priority policy needs (Lorenz 246). In revisiting the *Application Guide for the Statewide Park Development and Community Revitalization Program of 2018*, the grant request process describes the submittal of a technically complex thirteen-part application packet, complete with the requirement to demonstrate land tenure. With no technical assistance provided for complex administrative burdens such as real-estate negotiations, poor cities may be at a direct disadvantage if they have less professional resources to secure land tenure or negotiate real estate agreements. This theoretical handicap may be most relevant in built-out cities where securing a site for new parkland is complex and costly.

To address this issue, grant managers commonly use formulas, in combinations with or without competition, in order to distribute resources through need-based indicators (Collins and Gerber 1130). However, used without other consideration or criteria, there is no method of screening out local governments and non-profits that lack the basic capacity to complete projects or otherwise provide meaningful outputs (Collins and Gerber 1131), which presents a risk to grant administrators and contributes to a perception of wasted government resources. In considering these tradeoffs, Collins and Gerber present four distinct models for grant administration. These models are presented in Table 1.

Table 1. Institutional arrangements for grant contracting (Collins and Gerber 1130-1132)

		Selecting Recipients	
		Formula	Competition
Allocating Funding	Formula	Formula-Dominated High Social Equity, Low Accountability	Moderating Hybrid Moderate Social Equity, High Accountability
	Competition	Adverse Hybrid Low Social Equity, Low Accountability	Competition-Dominated Low Social Equity, High Accountability

In testing the hypotheses contained within the institutional grant contracting arrangements, Collins and Gerber conducted an analysis of funding distributions from non-entitlement Community Development Block Grant programs to residents with predominantly low- and moderate-income populations, aggregated at the county level among four states, including California (1134). A multivariate analysis produced statistical evidence the sampled states have a preference for funding on the basis of administrative capacity rather than need, and further, that states using moderate hybrid models, such as Texas and Utah, provide for higher levels of social equity performance than California and Kentucky that were characterized as predominantly using competition-dominated models (Collins and Gerber 1136-7). These findings suggest that the management of grant contracting for social equity is a major challenge as there are direct tradeoffs between awarding based on need and ensuring accountability. Furthermore, Collins and Gerber suggest that it is politically difficult to overcome the preference for competition dominated models within places such as California where accountability is strongly valued within the political climate (1137).

Although not specifically addressed by Collins and Gerber, there are also theoretical tradeoffs between the higher accountability afforded by competition and the advancement of environmental justice. Considering the previously presented environmental justice autonomy paradigm, the priorities set forth within state-administered competitive grant programs may serve to influence or otherwise dictate the scope of park development projects submitted by local municipalities. In doing so, the competitive nature of these programs may diminish local control within the neediest of communities as local elected officials and non-profit administrators are more desperate to obtain resources. Due to this higher level of dependency on grant funding, service providers working to benefit the most underserved may tailor projects to meet grant program funding criteria, and in doing so may otherwise deviate from the specific park development priorities identified by community members.

This desperation would be most likely to exist within cities that struggle to dedicate tax revenues to parks as they face competing resource demands for welfare services, such as police and firefighters, other forms of civic infrastructure, and transit programs. More so, the mostly older, built-out, inner-ring suburban cities are likely to have limited opportunities to receive park dedications through development agreements, and many have modest revenues from exactions and Quimby Act fees as compared to outer suburban and exurban cities with comparably newer housing stocks. Additionally, the lack of city management and internal administrative capacity to operate and maintain parkland, to obtain and manage competitive grant awards, and to advance park development are likely important independent variables influencing the allocation of grant funds.

Such a theory of diminished local control is supported by preliminary investigations conducted for this study. Informal interviews were conducted with the recreation and community service director for the city of Baldwin Park, Manuel Carrillo Jr., and the director of parks and recreation at the city of San Dimas, Theresa Bruns. These recreation professionals both work at two nearby cities with notably different socioeconomic profiles, with the former serving a considerably less wealthy and more ethnically diverse community. These interviews served to collect preliminary information about the use of grant funding. For instance, Carrillo estimated that grant funds accounted for approximately eighty-five percent of the total funding for the cities' park and recreation capital improvement program within his 16-year tenure. In contrast, Bruns estimated this figure as being thirty to fourth percent within her 12-years at the city of San Dimas. Bruns further identified that this rate would be as low as five percent when excluding funding from 1992 and 1996 Los Angeles County Proposition A measures.

In describing the cities use of grant dollars, Carrillo confirmed that Baldwin Park relies on park and recreation development grants primarily to rehabilitate existing facilities, noting one exception as the development of a skate park and teen center that received several grants including a large discretionary State funding contribution within Proposition 12, a measure passed by voters in 2000. Carrillo further identified that grants were a financial necessity for the City to implement park and recreational improvements. Yet for San Dimas, Bruns indicated that such grants were used for “a little bit of everything” including the development of a large foothill park, expansions, replacement, and rehabilitation of existing parks, as well as trail and other open space development. In terms of feedback received by grant program administrators when proposals were

unsuccessful, neither director was able to provide specific comments. However, Bruns did indicate that socioeconomic demographics within San Dimas and a lack of “grandiose projects” were identified as competitive disadvantages. While neither city had identified internal administrative capacity as a weakness, both directors did suggest that inconvenient timing of proposal solicitations and an inability to reach formalized agreements with project partners had jeopardized or prevented the submission of proposals.

Distributional Park Equity Research

A body of published park equity research was also reviewed to ground the topic of this thesis. Research has focused on describing the availability of park resources, and the provision of funding within urban areas. These studies all focus on the community and neighborhood scale, with many identifying service shortages within low-income and low-income minority areas, both in terms of access to parks and the quality of amenities. Several of these researchers have specifically studied the greater Los Angeles region, or a sub-portion thereof, and have concluded that shortages of these facilities contribute to the serious and chronic health problems that are prevalent within these underserved communities (Garcia and White; Joassart-Marcelli; Loukaitou-Sideris and Stieglitz; Sister, Wolch, and Wilson; and Wolch, Wilson, and Fehrenbach). Furthermore, existing park equity literature supports two important premises of this thesis: (1) disparities occur among groups with different socioeconomic classes, suggesting the possible existence of intentional discrimination in the provision of parks and park amenities; and (2) an association has been documented between the availability of financial resources for parks and the relative wealth and existing fiscal capacity of local municipalities.

Joassart-Mercelli has documented that expenditures of parks can vary from city to city throughout the Los Angeles region. For their study, data on park and recreation expenditures, including grant funds, were collected from city reporting maintained by the California State Controller (1177). Income data was then used to classify cities based on indicators of *fiscal capacity* while other socioeconomic and land use variables were used to assign cities into five additional descriptive categories: urban centers, inner suburbs, edge cities, bedroom communities, and privileged enclaves (Joassart-Mercelli 1177-8). The distribution of park and recreation expenditures were then mapped by city and revenue sources, and a multivariate regression analysis was used to identify association between fiscal capacity and demographics (Joassart-Mercelli 1179).

Annual per-capita expenditures, as mapped by Joassart-Mercelli, showed high variation in funding from all levels of government, including significantly lower spending in poor cities and within clusters of cities that met the description of “old suburb” (1179-83). State granting and nonprofit expenditures were also identified as having little effect on equalize spending (Joassart-Mercelli 1181). In fact, the research suggested that nonprofit financial support had the strongest influence in wealthier municipalities, serving to increase the disparities between the wealthy and poor areas within the region (Joassart-Mercelli 1181). Joassart-Mercelli also showed that “the poorest cities capital spending [on parks] only represents 12.6% of [total] park and recreation expenditures” while wealthier cities invested, on average, over 25% of their total park expenditures into capital investments (1181-1182). The researcher further found that:

As expected, per capita municipal fiscal capacity is one of the most important factors determining the per capita level of expenditure. For every additional dollar in municipal fiscal capacity, an additional 18 to 22 cents is spent on parks and recreational – a significant amount considering that parks and recreation represent

a mere 4% of all municipal expenditures. This indicates that, when cities have additional resources, they are willing to allocate them disproportionately to park and recreation uses, but, when fiscal resources decline, such expenditure may be the first to be cut-suggesting a high degree of elasticity characteristic of luxury goods. This finding has important equity implications because it shows that only cities that can afford to do so will allocate money to parks and recreation (Joassart-Mercelli 1187-1188).

Both the results and methods used by this research are particularly relevant to this thesis. Joassart-Mercelli provides specific evidence that park spending by cities within the Los Angeles region vary greatly along the lines of community wealth, with fiscally healthier municipalities expending a great deal more on park development and recreation operations than cities serving predominantly low income communities. More so, evidence is provided that public grants have done very little to equalize spending, suggesting a policy failure, and that the non-profit sector, collectively, does not compensate for low spending in underserved areas, but potentially exacerbates the divide in spending equity among cities. The study also describes the use of methodologies and detailed research procedures of relevance to the focus of this thesis, including the strategies of classifying cities by land use and socioeconomic characteristics, and of using statistical modeling in order to make correlative assertions.

Outside the work of Joassart-Mercelli there has also been regionally relevant distributional equity studies within the context of the city of Los Angeles, examining communities at the neighborhood scale. Notably, Los Angeles neighborhoods are likely equivalent to most other cities within the region in geographical size and population, but vary in terms of local autonomy. The City of Los Angeles-focused body of work includes a research study that investigates park funding. Conducted by Wolch, Wilson, & Fehrenbach, these researchers confirmed the existence of inequities in both funding

expenditures and the provision of resources within in the City's park system among city council districts (15-23).

A portion of this study included an investigation into the distributional equity of grants awarded to public agencies, City departments, and nonprofit organizations through a competitive process established by the City of Los Angeles Proposition K. This proposition is also referred to as the LA For Kids Program, which has the primary purpose of combating “the inadequacies and decay of the City's youth infrastructure, which has resulted in serious unmet needs for park, recreation, childcare and community facilities” (“Proposition K (The LA For Kids Program”) Fact Sheet). Wolch, Wilson, & Fehrenbach investigation of this competitive grant program began by geocoding the distribution of grant funded projects to increase and enhance recreation and park space for children, and aggregated these sites by census tracts (23-24). The researchers then expressed the expended grant dollars on a per capita basis to make comparisons by neighborhood socioeconomic characteristics, finding that funds were focused toward lower income areas in absolute terms (24-27), but on a per youth basis, neighborhoods of significant poverty received only slightly more investment than the most privileged sub-areas that already possessed greater availability of park lands, as expressed on both a per capita and per child basis (25-28).

Given the stated purpose of Proposition K, these findings lend support to the theories presented by Collins and Gerber that high social equity preference is often circumvented by a tendency of grant administrators to award based on demonstrated administrative capacity. In terms of influencing the research strategies of this thesis, the work of Wolch, Wilson, & Fehrenbach provides a precedent to geocoding grant awards

to defined geographical units and then making socioeconomic comparisons between per capita funding awards as methods for conducting distributional park equity studies. Additionally, further research context and procedural examples are also available for a wider body of literature focused on documenting the physical difference in access, congestion, and the quality of parks and recreation facilities.

For instance, the other portions of Wolch, Wilson, & Fehrenbach's study focused on examining park access as expressed through two other methods. The first strategy analyzed the distribution of park acres as a ratio expression of acreage per every 1,000-population available within a given unit of analysis, and the second strategy used a geographic coverage measure that identified walkable access to parks within ¼ mile buffer (Wolch, Wilson, & Fehrenbach 14). As with the analysis of grant fund provisioning, this portion of the study also identified highly uneven geographical distributions. In terms of acreage per population ratio, Wolch, Wilson, & Fehrenbach found that neighborhoods with 75 percent or more Latino population had 0.6 park acres per 1,000 population (17-18), which can be compared to white dominated tracks that had over 30 acres per 1,000 residents (19-21). Yet, when considering the distributions of access under the ¼ mile buffer coverage measure, the findings showed poorer and minority-dominated neighborhoods had more "walkable" access (Wolch, Wilson, & Fehrenbach 22). In concluding, Wolch, Wilson, & Fehrenbach suggest that the distribution of grant funding patterns "often exacerbate rather than ameliorate existing inequalities in park and open space resources distribution" (6).

While the Wolch, Wilson, & Fehrenbach findings support assumptions of this thesis study, other reviewed literature identified relevant criticism of how researchers

have used racial and ethnic indicators for identifying discrimination. More specifically, an unpublished policy report authored by Garcia and White, released by an environmental justice organization, The City Project, on the topic of park and green space access within the Los Angeles region recognizes that some studies have analyzed park and funding disparities in terms of identifying and comparing areas with a racial or ethnic majority. This includes defining populations with 50% to 75% from a given group as a majority, or a supermajority, when such groups are greater than 75% (Garcia and White 15).

Garcia and White argue that such methods are inappropriate as these thresholds “create too high a statistical hurdle to evaluate equal access to natural public spaces” and fail to identify all but the most egregious of discriminatory distributions (15). Instead, the authors recommend that comparative averages be used (Garcia and White 15), for instance, comparing rates of Latinos in various neighborhoods against the county average. This recommendation is meant to increase the sensitivity of identifying priority areas through an environmental justice lens, as well as allowing for the identification of discriminatory inequalities.

In terms of the research design, Wolch, Wilson, & Fehrenbach deployed two common, yet relatively simplistic approaches to measuring access. These include determining if there is spatial access as a measure of whether a park is reasonably within a convenient distance of a population. Access is also considered in terms of crowding, in which the researchers identified potential park congestion, expressed as a ratio of park acres to people served such as 1 acre for every 1,000 residents. The latter method, as used by Wolch, Wilson, & Fehrenbach, is supported by standards adopted by the

National Recreation and Park Association, which recommends a target standard of 6 to 10 acres per 1,000 residents, and a minimum standard of 0.6 to 1 acres (Lancaster).

The other measure used by Wolch, Wilson, & Fehrenbach considers community members access in absolute terms by determining if residents are within or outside of a *park service area*. As seen in other studies (such as Robert Garcia; Nicholls; Nicholls and Shafer), an outward one-quarter mile to a half mile Euclidian distance delineation using geographical information systems are commonly used to estimate a reasonable walking distance to parks. If residents are “covered” by the buffer they are identified as having park access (Nicholls and Shafter 106-108). In terms of assessing equity, Nicholls clarifies that such a measure does not show inequities directly, but that patterned distributions identified against socioeconomic variables, or other measures of environmental characteristics do suggest discrimination in public service provisioning (207).

As geospatial technologies, such as geographic information systems, have become more accessible, more complex park service areas assessment methods have also been used in park equity studies. For instance, network distance calculations have emerged as a more accurate approach than using Euclidian distance (Koohsari, Nicholls, Nicholls and Shafter). This more complex method uses paths of travel, such as roads and other public right-of-ways, to calculate park service areas while accounting for barriers such as rivers or commercial developments (Nicholls and Shafter 110-113). An example of applying this strategy is seen in a study focused on the city of Melbourne, Australia, which compared park service areas by an index of socioeconomic status to identify if significant

negative correlations exist between access to public open space and areas of low socioeconomic status (Koohsari 68-71).

More sophisticated park congestion assessment methods than those used by Wolch, Wilson, & Fehrenbach have also emerged, involving the distinct delineation of the unit of analysis. A 2009 study published by Sister, Wolch, and Wilson delineated park service areas within the greater Los Angeles region by calculating Thiessen polygons (232-235). As explained by Sister, Wolch, and Wilson, the Thiessen polygons method stands in contrast to Euclidian distance and network analysis by assigning *all* locations within a study area to the delineated service area by mathematically defining the closest park to any given location (232). Under this approach an entire study area is considered covered or serviced by a park, allowing for an arguably more pragmatic way of analyzing the locations of park congestion inequities. Results of the analysis conducted by Sister, Wolch, and Wilson further confirmed that service areas in the Los Angeles region that are dominated by minority and low-income groups are more likely to experience higher potential park congestion while predominantly white and high-income areas had lower a likelihood (235-241).

Yet access is not the only method in which to consider equity in the provision of parks. Several studies have also considered the quality of park amenities, and of park infrastructure. For example, Smoyer-Tomic, Hewko, and Hodgson analyzed quantitative data of playground condition along with a network distance analysis to investigate the distributional equity among neighborhoods in Edmonton, Canada. Results from the study showed equitable access based on neighborhood socioeconomic characteristics, with the neediest neighborhoods having the greatest availability of playgrounds, however, a much

weaker association was found between areas of high-need and high-access when playground condition was considered as an additional variable (Smoyer-Tomic, Hewko and Hodgson 293-295). The authors conclude that spatial equity analyses are better informed when consideration is given to the quality of amenities providing community benefits (Smoyer-Tomic, Hewko and Hodgson 300-301).

Somewhat similar to the Edmonton focused study, a multi-segmented sequential research investigation by Loukaitou-Sideris and Stieglitz on the city of Los Angeles park system first examined equity through the spatial distribution of facilities by neighborhood and then conducted case study examinations at eight parks. In doing so, this research focused on identifying variation in the quality and maintenance of facilities, and availability of amenities and play equipment, as well as assessing users' satisfaction (Loukaitou-Sideris and Stieglitz 475-481). For the latter study objective, field surveys and interviews with children were used to ascertain how the parks and amenities contained therein met needs and preferences (Loukaitou-Sideris and Stieglitz 480-485). In summarizing the outcomes of the study, this mixed method approach found park facilities to be relatively uniformly distributed across the urban landscape, yet pronounced inequities existed in terms of per capita availability of park acreage as well as the overall quality, spatial programming, and maintenance between the inner-city and suburban neighborhood parks (Loukaitou-Sideris and Stieglitz 475-487). Additionally, the targeted interviews conducted by Loukaitou-Sideris and Stieglitz reveal different use patterns with greater dependency by inner-city children on neighborhood parks as extensions of their day-to-day living spaces (481-486).

As a final research study to present as part of this background discussion, the County of Los Angeles Department of Parks and Recreation completed a Countywide Comprehensive Park & Recreation Needs Assessment in 2016. In reviewing other park need assessments completed by local and state governments, this countywide evaluation stands out as innovative due to its inclusive and multi-faceted approach toward measuring need. Five separate metrics for assigning need were included in the study, and expressed as an index of communities with very high, high, moderate, low, and very low park need (Los Angeles County). The methodologies used in the Los Angeles Countywide Comprehensive Park & Recreation Needs Assessment considered measures of park congestion as a ratio of park acres per 1,000 residents, as done by Wolch, Wilson, & Fehrenbach and others, evaluation of close to home park resources through a half-mile Euclidian distance delineation, an appraisal of amenities and infrastructure conditions through a systematic park survey, and an assessment of amenities available in parks. Results identified that 32.2% of County residents live in communities with very high park needs, while 20.4% and 26.2% live in communities with high and moderate need, respectively (Los Angeles County). In examining the resulting geographic distribution of need in relation to land use and demographic data, the neediest communities were identified within inner suburbs within the region, including areas associated with higher levels of pollution burden, lower incomes, and more racial and ethnic diversity.

The literature reviewed on the topic of distributional park equity collectively presents a range of ideas of how to approach knowledge claims. This work also demonstrates an actively growing subject deploying a range of evolving strategies focused on evaluating a variety of issues, including resource allocation, access, and

quality of park amenities. Methodologically, the steady advancements observed over time demonstrate careful attention to sound reasoning and logic. With the intent of fully appreciating this advancement, the next chapter of this thesis presents a research framework focused on the topic of park resource provisioning, presenting a specific knowledge position, and sets out specific inquiry strategies and procedures taken and adapted from the discussions presented in this chapter.

CHAPTER 3. RESEARCH DESIGN AND PROCEDURES

Urban dwellers are dependent on parks and recreational facilities to alleviate many of the environmental stresses found within cities. Parks may also be the only available spaces for recreation, exercise, and respite from urban life. Yet the need for these facilities throughout the greater Los Angeles Region has been met with a high degree of geographic variation. The availability of resources fluctuates among communities, with areas of greater resources correlating with community affluence (Joassart-Marcelli 1187). This phenomenon presents concerns over social equity and helps to support a movement to alleviate environmental injustice in underserved areas within the region. The resulting public policy has targeted subsidies toward poorer communities, often including those composed of racial and ethnical minorities. Much of this assistance, particularly from the state government, is distributed through competitive grant programs.

As the definitive problem addressed by this research study, it is largely unknown how effective competitive grant programs are at delivering compensatory investments to subsidize local park and recreation development projects in areas of critical need. As grant programs continue to be the primary mechanism used by the California government to assist park service providers, the lack of knowledge is increasingly an issue as the effectiveness of these grants cannot otherwise be understood. For example, no detailed evaluation has been done to identify who is receiving the lion share of the subsidies (i.e. grant funding). It is also unknown if those investments are consistent with counteracting historic discrimination in park access within the greater Los Angeles region.

In describing some of the key concepts related with this problem, the phrase *park and recreation development project* refers broadly to any activity, or series of activities, that involves the acquisition of parkland or the development, enhancement, and rehabilitation of park and recreation facilities that meet one or more need. This assumes that park projects are always advanced to meet an identified need. A *grant* describes financial contributions or assistance made by one party to another that is non-repayable, and that requires a proposal or application from the recipient. In the context of this research study, the term is specifically associated with financial contributions made by California State agencies to subsidize park and recreation development projects. The topic of this study is further focused specifically on *competitive granting*, referring to the use of competitive processes by State agencies to make financial contributions to park service providers. This process typically involves an in-depth assessment of proposals or applications to select successful recipients. Notably, the competitive nature requires that applicants jointly request more funding than will be contributed in total, meaning some prospective recipients will be unsuccessful in receiving grants. Selections may be made based on the merits of the prospective recipients, allocation priorities, or a combination thereof (Collins and Gerber1129-1131).

Addressing this problem, this study aims to contribute to the knowledge about the performance of grant programs administered by several State agencies within California that provide financial contributions for park and recreation development projects. With this goal, the study has two distinct objectives accomplished through sequentially ordered research stages. First, using inductive reasoning, an objective is to observe the extent to which multiple independent variables correlate with grant award subsidies on a per capita

basis (the dependent variable referred to at hereon as “Competitive Grant Funding”) and to develop a statistical model that may predict these relationships. This is done through quantitative research, using a retrospective cross-section study that uses hierarchical multiple regression modeling. While this exercise is intended to predict who benefits most from these programs, past research already suggests that inequalities have been furthered (for example: see Wolch et. al.). Thus, the emphasis of this portion of the study is on observing the strength of the relationship among variables presented within an initial theoretical framework.

The second sequence seeks to develop more detailed causal theories using cross-sectional interview methods to gather information for a latent (qualitative) content analysis, analyzing patterns to match issues among groups and to interpret the contextual meaning (Gaber and Gaber 104). Patterns are compared among two groups: park service providers that are, and are not, successful in obtaining grant awards. The intent is to put forth and position new theories within the context of the study through deductive reasoning, supported by the experiences of service provider practitioners accessed through their spoken words. Collectively, this research will allow for more detailed theories to be postulated as to “why” there is such variation. This added knowledge can inform policy modifications, including the use of different approaches to deliver compensatory equity. From a social science stance, this knowledge may support subsequent research into causal relationships.

The general design of this mixed quantitative and qualitative research follows the insights from Creswell, as put forth in *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*, and Tashakkori and Teddlie in *Mixed Methodology*:

Combining Qualitative and Quantitative Approaches. For the first quantitative component, which serves to verify and detail a perceived policy problem, specific procedures are also influenced by Patton, Sawicki, and Clark from the advice provided in *Basic Methods of Policy Analysis and Planning*. Guidance for the second qualitative part of the research is taken from Gaber and Gaber in *Qualitative Analysis for Planning & Policy* as well as Patton in *Qualitative Evaluation and Research Methods*.

Unifying these methods is a pragmatic epistemological stance. Creswell describes this stance as knowledge claims that “arise out of action, situations, and consequences rather than accidental conditions” (11). And goes on to describe that “Instead of methods being important, the problem is most important, and researchers use all approaches to understand the problem” (11). For this topic, past research, including the work of Joassart-Marcelli, Loukaitou-Sideris and Stieglitz, Sister et al., and Wolch et al., has outlined an existing epidemic of inequity across greater Los Angeles, leading to stark concerns about the effectiveness of the procedures used to indirectly distribute top-down resources, and the resulting consequences on the quality of life for the most environmentally burdened, and socioeconomically vulnerable residents within the region. Under pragmatism, the problem addressed by this study is known because it is perceived by these past researchers, although the problem may be defined and detailed imperfectly. More so, this problem is not being studied strictly to deepen knowledge within the social sciences or to empower advocacy. Rather, the priority of this study is to move us toward a more just society by analyzing policy performance and developing solution-based theories to support future refinement and the possible use of alternative policy actions.

It should be further noted that this research relates to a larger planning and public policy issue of equity in resource provision, and the struggle to effectively overcome historic environmental racism. This larger issue is in no way limited to park and recreation, therefore, the design of this research may permit broader theoretical generalization pertaining to the use of indirect subsidies in lieu of direct governance. For instance, the State of California also implements competitive grant programs to subsidize local transportation facilities, water infrastructure, and social welfare programs.

To implement research into this problem, conjoined data collection and analyses methods are used to capture knowledge through a “mixed method” research project (Tashakkori and Teddlie 20-39). The intent of applying these mixed approaches are to allow for *in-between-method triangulation*, using both quantitative and qualitative applications to collect multiple data “slices” to strengthen the theories generated from this study (Gaber & Gaber 136). Within this concept of methodological triangulation, Gaber & Gaber present five purposes with the type used in this study characterized as *expansion design*, in which the range of knowledge obtained from the initial research sequence is expected to be expanded in the subsequent sequence (137-140). Notably, through the use of an expansion design the “research cycle” is circumnavigated, meaning that both inductive and deductive reasoning are used, a practice uniquely accepted by pragmatists (Tashakkori and Teddlie 22-26).

More detail about these research procedures are provided in the following subsection of this chapter. First, the research problem is elaborated upon a presentation of the topic’s theoretical framework. Then hypotheses are presented while detailing the analysis methods and defining and describing how variables are operationalized. The chapter

concludes by detailing the data collection and sampling procedures for the quantitative and qualitative research components.

Theoretical Framework

This research brings together a set of interrelated concepts to effectively communicate the meaning, nature, and challenges associated with the topic. Constructing this theoretical framework is useful for multiple reasons. Presenting theory allows for a critical evaluation of assumptions made within this study as well as an assessment of where the research comes from within the social sciences. Theory is also necessary to test or describe phenomena. Therefore, the framework serves the critical role of establishing a basis for a research design. In this more holistic sense, practice enables theory which generates questions for research. Theory is a necessary part of this circular process.

The topic of this study is competition-dominated granting as a government policy used to subsidize local park and recreational resources, actions which have direct implications for social equity and environmental justice. In his book “Social Equity and Public Administration,” Frederickson describes the domains of equality within his “Compound Theory of Social Equity” and in doing so defines how governments use compensatory inequality “to offset other inequalities outside [of their] domain of allocation but within the broader domain of claims” (56-57). For this topic, it is theorized that the State government is seeking equity in parks resources as a means of overcoming a history of inequalities in places such as the greater Los Angeles Region. Effective grant programs therefore distribute unequal subsidies to the neediest communities as a compensatory measure.

Within this realm of subsidies as a public policy mean, scholars have studied the tradeoffs between effectiveness and accountability in the delivery of public services and goods. As a theory to improve the efficiency of service delivery, “New Public Management Theory” describes the use of private sector approaches such as outsourcing (i.e. privatization), decentralization, and competition-based performance budgeting as contemporary tools used by government administrators to balance effectiveness and accountability (Ferris and Graddy 227-235). One criticism of applying this theory is that it can circumnavigate democratic accountability as it “tries to realign the relationship between expert managers and their political superiors... [to be] closer to parallel” (Kapucu 888). Ferris and Garddy describe an example in which bureaucrats manage tradeoffs between efficiency and accountability by devising “fuzzy” *hybrid institutional arrangements* (237).

Collins and Gerber describe institutional arrangements for grant contracting through their “Framework for Analyzing Social Equity.” They theorize that grant contracting falls within four typologies, each with comparative advantages and disadvantages in managing for social equity and accountability (1130-1132). Supported by their own evaluative research, Collins and Gerber suggest that selecting grant recipients, such as park service providers, through competition *works to ensure high accountability at the cost of social equity* (1131-1132). They further theorize that the effects to equity performance can be partly moderated through hybridized institutional arrangements that use allocation formulas (1132). For instance, grants may be awarded competitively, but only to projects within urban areas meeting a threshold measured by a

socioeconomic indicator. Notably, Ferris and Garddy may consider this one of the “fuzzy” solutions that can stem from the use of hybrid institutional arrangements.

Theoretically, there are many indicators that can be used to influence the way resources are allocated. For instance, granting agencies prioritize marginalized communities that have been disenfranchised and discriminated by defining specific indicators and corresponding thresholds. Other agencies require applicants to put forth their own persuasive arguments using whatever indicators they determine are relevant.

Environmental justice literature, such as the “Latino Critical Race Theory,” proposes that marginalized groups are not specifically defined but are rather composed of racial and ethnic minorities that may include Blacks, Latinos, Asians, and Native American as well as other groups such as women of color (Anguiano et al. 128-129). Other environmental justice researchers, such as Pellow, show that disenfranchised and discriminated groups also include the poor. “Latino Critical Race Theory” further suggests that white supremacy and racial power are established over time, and that government plays a role in maintaining these powers as a common and predictable process (Anguiano et al. 128, Peña). Therefore, to be efficient and equitable, it would be expected that park grant allocations would be compensatory to areas of higher need regardless of efforts to ensure accountability. Alternative phenomenon may suggest institutional discrimination.

From these concepts a “Compensatory Park Development Funding Theory” is put forth. Grant subsidies for local park and recreation development are seen as dependent upon a number of other factors. As a central point of this theory, the presence of minority groups with high comparative levels of community need and low administrative capacity

among park service providers is expected to result in the highest delivery of subsidies. Community need is expected to associate positively with dense land uses and negatively with community wealth. Figure 2 provides a diagrammatical representation of this theory.

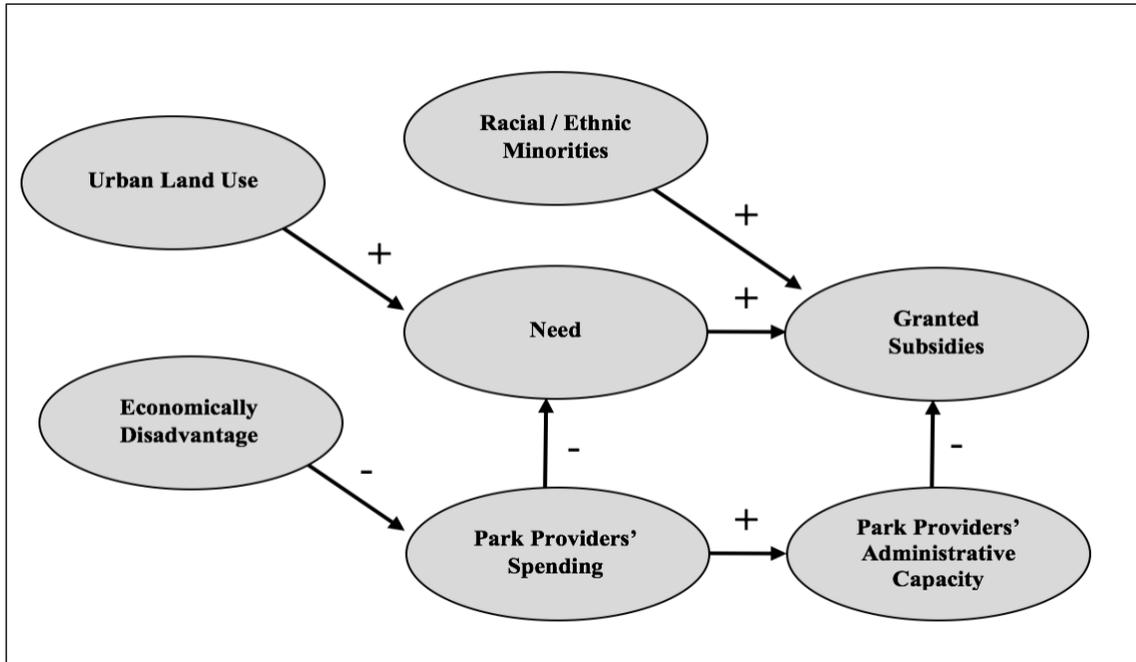


Figure 2. “Compensatory Park Development Funding Theory” path model

As stated by Joassart-Marcelli, “Of course, money is not everything and higher expenditure may not necessarily translate into parks or recreation facilities that lead to healthier behavior” (1190). And for that matter, parks need to be valued and used by the surrounding residents to be effective in providing a full range of benefits. Jacobs, a famous critic of planners’ efforts to promote urban redevelopment and an advocate of diverse and walkable cities, provides a further cautionary statement against “frittering away money on parks, playgrounds and project land-oozes too large, too frequent, too perfunctory, too ill-located, and hence too dull or too inconvenient to be used” (110). It can easily be conceived that a dollar spent on development of a state-of-the-art sports complex within a densely developed urban environment is likely not to equate to the

same potential recreation benefits of a dollar spent on constructing a trail in exurban fringe communities. More so, variation in community preferences toward normative uses of parks and recreation facilities may also differ. Need is also highly subjective. In these ways, the effectiveness of how funds are invested into park and recreation development projects is largely dependent on local environments and community preferences.

“New Public Management Theory” would hold that in order for a granting agency to evaluate effectiveness, they would depend on local information (Ferris and Graddy). This is seen in the requirements of competitive grant programs to require cities to prepare lengthy and information rich grant proposals to justify funding requests. Not only are these activities a transactional burden to local service providers, the implications of this burden are not universal. Within her park funding equity study of the greater Los Angeles Region, Joassart-Marcelli theorizes that larger and wealthier cities are likely to have more established administrations, giving them a greater ability to support park and recreation development. The same may be true for grantsmanship. This is consistent with the theory proposed by Collins and Gerber that “Potential grantees with greater administrative capacity can credibly propose more complex projects with larger budgets regardless of relative need factors” (1131).

Hypothetically, “fuzzy” hybrid institutional arrangements/grant award processes, coupled with persuasive grantsmanship afforded by higher administrative capacity, may have an effect sufficient enough to modify the “Compensatory Park Development Funding Theory” to have a positive relationship between competitive State subsidies and park service providers’ own administrative capacity. Such a disconnect would represent a theory failure in moderating for social equity performance.

Research Hypothesis

The research hypothesis is that subsidies for park and recreation development projects, as provided through competitive granting, *increases* with park service providers' administrative capacity. This hypothesis supports a notion that there is a *compensatory equity service provisioning disconnect* that functions to surpass the influence of mediating variables presented in the "Compensatory Park Development Funding Theory." As visualized in Figure 3, it is postulated that State agencies are prioritizing accountability by relying on institutional contracting that is dominated by competition. This dominating influence is thought to place park service providers working in areas of critical park needs at a distinct disadvantage; they are limited by their administrative capacity, reducing their ability to obtain grant awards, and, therefore, reducing their effectiveness in meeting park needs.

Inequity and environmental injustices may be furthered by these programs as State assistance flows to more moderately-needy low to middle-class communities. These are communities that can afford to invest in the administration of their city governments, adding capacity for skills like grantsmanship and project management. Under this theory, those who are left out include poorer communities within smaller cities that do not have a tax base balanced by wealthier neighborhoods.

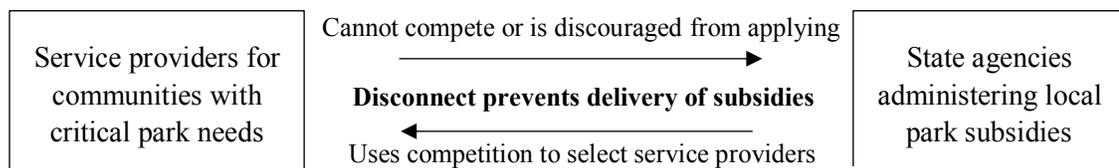


Figure 3. Compensatory equity service provisioning disconnect

Corresponding to the research hypothesis, the null hypothesis is that there is no observed correlation. An alternative hypothesis is that the “Compensatory Park Development Funding Theory” is working free of the suspected service provisioning disconnect. Other alternative hypotheses may be identified over the course of completing the research.

In the first sequence of the study, the research hypothesis will be statistically tested on a sample of cities, with cities are used as proxies for communities as the unit of analysis. Testing uses hierarchical multivariate regression modeling generated from SPSS statistics software. This allows for the prediction of the dependent variable, “Competitive Grant Funding,” based on multiple independent variables. Yet, the primary advantage of hierarchical multivariate regression is that it allows for the consideration of possible causal effects by observing the change in variation as independent variables are entered into the regression equation in a predetermined order (Laerd Statistics). Thus, the emphasis is on observing the strength of the relationship among variables presented within the initial theoretical framework.

In setting up this analysis, the dependent variable, “Competitive Grant Funding,” is used as a ratio measure of per capita park and recreational development funding received by cities in the research sample. Ten independent/explanatory variables are used within the regression modeling as ratios or categorical measures to predict statistically significant relationships using a 90 percent confidence level. Predicting variables address population age, racial and ethnic minorities, park need, rough urban land use type, disadvantaged economic conditions, and spending by cities (as park providers). The specific measures are further described in Table 2.

Table 2. Measures from the independent variables

Variable	Measure	Description
Population under 18 years of age (%)	Ratio / proportion of total population	Demographic indicator
Population under 64 years of age (%)	Ratio / proportion of total population	Demographic indicator
Population that is Latino (%)	Ratio / proportion of total population	Demographic indicator
Population that is Asian (%)	Ratio / proportion of total population	Demographic indicator
Population that is Black (%)	Ratio / proportion of total population	Demographic indicator
Park Need	Five ordinal categories	Use of the Los Angeles County Park Need Score, which is a scale based on indicators of park congestion (acreage per capita), community access (proportion of population with access within a ½ mile), condition of park amenities and infrastructure, and availability of amenities
Rough Urban Land Use	Five nominal categories	Index calculated from numeric demographic data of housing stock, employment density, and income
Economically Disadvantaged Communities	Dichotomous categories	Calculated as cities with average median household income less than 80% of the statewide average
Park and Recreation Spending	Ratio / monetary per capita value	City park and recreation spending costs averaged between State fiscal year 2000/2001 through 2014/2015, divided by 2010 total population
City Management Spending	Ratio / monetary per capita value	City management spending cost averaged between State fiscal year 2000/2001 through 2014/2015, divided by 2010 total population

Notes: As defined in California Public Resource Code Section 4799.09 (a) and 79505.5 (a), a “disadvantaged community” means “a community with a median household income less than 80 percent of the statewide average.”

Many of the other indicators used to measure the independent variables were taken from the study design of Joassart-Marcelli. This includes the use of a per capita monetary measure of total spending by park providers for service delivery, “Park and Recreation Spending.” It also includes the use of demographic indicators to describe urban land use through a categorical index, referred to as the “Rough Urban Land Use.” This index includes urban centers, inner suburbs, edge cities, bedroom communities, and privileged enclaves. As described by Joassart-Marcelli, these rough categories are delineated using the following indicators and thresholds:

‘Urban centers’ and ‘inner suburbs’ are cities with above-average proportion of housing stock built before 1970; job density is above average in the former, and below average in the latter. ‘Edge cities’ and ‘bedroom communities’ both have below-average proportions of housing stock built before 1970. Job density is above average in edge cities and below average in bedroom communities. ‘Privileged enclaves’ are any cities with median household income above... the 90th percentile (1178).

As with the research procedures of Joassart-Marcelli, the overall fit of contributions made by these predictor variables will be explored by comparing four discrete regression models. The first model will predict grant subsidies by considering racial and ethnic minorities. Each subsequent model will add other variables in an attempt to further explain the observed relationships. The second model will add “Park Need.” The third model will enter the economic and land use variables, “Rough Urban Land Use” and “Economically Disadvantaged Communities.” Finally, the fourth model will add the measures of administrative capacity, “Park and Recreation Spending” and “City Management Spending”.

If testing does not allow the null hypothesis to be rejected, it will suggest that the underlying research theory is invalid or that the observed relationship is very weak. If so, the purpose of the second deductive research component will be to explore possible

alternative theories. If strong positive correlations are observed through statistical testing, it would lend support to the research hypothesis. Strong negative correlations would lend support to the alternative hypothesis, that State grant programs are being implemented consistent with the “Compensatory Park Development Funding Theory.” More complex, largely variable, or weak relationships may also be encountered. In any case, the second research component will seek to build upon observed correlation by theorizing about causal mechanics.

It should be noted that inferences will be limited to correlation. This is due to the inadequacy of available literature and past research findings. From the results of this study there will remain insufficient evidence to identify a clear causal relationship. Yet, observed correlation can still serve as useful purpose by contributing to expanded knowledge within the topic. Particularly from a pragmatic epistemology, grant administrators can use such information to consider further policy analysis or to modify and observe the performance of alternative policy actions and approaches. The detailed theories generated in the second component can guide such efforts.

This second part of the research study uses content analysis to further describe the relationship between the dependent variable and that of park service providers’ or cities’ administrative capacities. The “content” analyzed is the “voice” of senior city staff administrating the delivery of municipal park and recreational services. More specifically, it was determined that interviewing the directors of cities’ park and recreation departments, or the equivalent where city administrative structures may vary, would provide the best likelihood of connecting with individuals having the relevant first-hand knowledge and opinions needed for this investigation.

The relationship these staff members have to the topic can help to facilitate a comparison of their remarks to other comments. In this application, statements will be compared between two groups of city staff, those working for cities identified at the extremes of the “Competitive Grant Funding” measure: those cities that have obtained the least and most in per capita grant funding. The specific purpose is to deduce more refined theory, or new theory, by identifying patterns within the words, themes, and concepts provided by these individuals. This is referred to as a *pattern analysis* (Gaber and Gaber 111). By analyzing and interpreting the *latent content* within the data, a qualitative approach is taken in which concepts are matched to these two groups to determine who said what (Garber and Gaber 104-105). As appropriate for a latent analysis, an open reading is used to identify general codes, or concepts, with the assistance of a “key-word-in-context” (KWIC) index to identify the contextual meaning of words within the context of a statement (Garber and Gaber 109-112). Minnesota Contextual Content Analysis Lite software is used to generate the KWIC index.

While the research design and methodologies used to address this problem are considered strong, it remains useful to assess and disclose possible research weaknesses. One possible weakness is that the problem addressed here is more complex than conceived. For example, cities are not the only local service providers that receive financial subsidies. Cities can also directly compete with private non-profit groups, park districts, and other forms of local government, such as joint power authorities. The relationship between State grant administrators and local service providers may be too simplistically understood and narrowly defined at the onset of the research. Yet, city

governments are by far the primary provider of public park and recreational services within the greater Los Angeles Region (Joassart-Marcelli).

Another weakness may lie within the research design as the statistical analysis lacks a control group. Without a control group, there is no way to know if the observed correlation is due to a causal relationship or is the result of unknown confounding variables and bias. This provides an inherent concern over external validity. Yet, as the study is retrospective, no viable alternative designs were identified that could allow for a control group. Other weaknesses relate to generalizability, which is subsequently discussed along with sampling procedures.

Data Collection Methods for the Quantitative Component

The initial sequence of this research relies on amassing data measured, maintained, and held by government agencies to support the analysis. Secondary collection methods are exclusively used. The following elaborates by describing the relevant collection procedures, including the means of obtaining data. Issues of reliability, validity, and measurement error are also highlighted.

Data collection, as discussed in this section, stems from the measurement of the constructed variables within the research hypothesis. The measure for the dependent variable, competitively-granted per-capita grant funds, was calculated for each city by dividing the total value of awarded funds over a 15-year period by the total population of residents as of 2010. These calculations include money awarded through 14 distinct grant programs, all administered by State agencies from State fiscal years 2000/2001 to 2014/2015. Or rather, from July 1, 2000 to June 30, 2015. These competitive programs were identified through comprehensive internet research, beginning with a review of

voter-approved resource bond acts between 2000 and 2006, as summarized on the following page in Table 3.

Programs receiving bond appropriations for the purpose of supporting local capital projects for parks, trails, or other recreational facilities were investigated. Several non-bond funded programs were also encountered during this research. This review resulted in the identification of 10 bond-funded and 4 non-bond-funded programs with geographical allocation areas within the greater Los Angeles Region or a portion thereof. These 14 programs are summarized in Table 4, located on the pages that follow Table 3.

Table 3. California proposition initiatives providing funding for parks

Proposition	Authorizing Legislation	Allocation
Proposition 12 in 2000	Safe Neighborhood Parks, Clean Water, Clean Air and Coastal Protection Bond Act of 2000	\$2,100,000,000
Proposition 40 in 2002	California Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Act of 2002	\$2,600,000,000
Proposition 50 in 2002	Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002	\$3,440,000,000
Proposition 84 in 2006	Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006	\$5,388,000,000

Table 4. Summary of competitive state-administered grant programs (Application Guide for Local Agencies: Land and Water Conservation Fund; Application Guide for the Nature Education Facilities Program; Application Guide for the Statewide Park Development and Community Revitalization Program of 2008; Application Guide: Habitat Conservation Fund Trails; California River Parkways Grant Program: Bond Funded Grant Guidelines & Application; Procedural Guide for the 2002 Resources Bond Act: Murray-Hayden Urban Parks and Youth Service Program; Procedural Guide for the 2002 Resources Bond Act: Roberti-Z'Berg-Harris Urban Open Space and Recreation Grant Program Urbanized Area Need-Basis Grants; Procedural Guide for the 2002 Resources Bond Act: State Urban Parks and Healthy Communities Program; Procedural Guide for the 2002 Resources Bond: Urban Park Act of 2001; Procedural Guide for the 2002 Resources Bond Act: Youth Soccer and Recreation Development Program; Procedural Guide for the Federal Recreational Trails Program; Procedural Guide for the Murray-Hayden Urban Parks and Youth Service Program; Procedural Guide for the Non-Motorized Trails Program; Procedural Guide for the Riparian and Riverine Habitat Grant Program; Procedural Guide for the Roberti-Z'Berg-Harris Urban Open Space and Recreation Grant Program Urbanized Area Need-Basis Grants; and Rivers and Mountains Conservancy Grant Program Guideline)

Program Name	Intent of Granting Contracts	Allocation Area	Notable Selection Considerations
California River Parkways Grant Program	Financially supports acquisitions, restoration, and development of parkways along streams, rivers, and channelized waterways that provide two or more of the following: 1) recreation opportunities, 2) habitat protection and enactment, 3) flood management compatibility, 4) conversion of developed river-front land to parkways, 5) interpretive conservation features	Funds allocated statewide along natural creeks, streams, and river, even if flow is seasonal, or channelized or culverted	<ul style="list-style-type: none"> • Demonstrated community support • Capacity of applicant, or another project partner to complete, operate, and maintain the project • Availability of matching funds • Environmental compatibility of project • Economic benefits of project • Statewide significance of project • Equitable spread of awarded funding
Habitat Conservation Fund, Trails Category	Financially supports trail development, or land acquisition for trail development, that provides paths or tracks that bring people to parks and wildlife areas	Statewide with an effort to provide geographic equity in the spread of funds	<ul style="list-style-type: none"> • Unmet need for the project, including need for trail connections and threat of not acquiring land • Stakeholder involvement in project concept • Applicant's capacity to carry out project, and, for non-acquisition projects, to operate and maintain the project once completed

Program Name	Intent of Granting Contracts	Allocation Area	Notable Selection Considerations
Land and Water Conservation Fund*	Provide up to 50% of funding for projects that acquire or develop public outdoor recreation resources, meeting at least one of the priorities actions listed in the current <i>California Statewide Comprehensive Outdoor Recreation Plan</i>	Funds allocated statewide	<ul style="list-style-type: none"> • Demonstrated need, including effect if unfunded • Creations of new parks prioritized over expansion • High population density surrounding the project • Project within a low-income area, benefiting seniors, at-risk youth, and disabled persons • Applicant's past project experience and success
Murray-Hayden Urban Parks and Youth Service Grant Program	Financially support acquisition, development, and rehabilitation of park lands, park facilities, and youth centers, and environmental enhancement projects, within at least 1-mile of neighborhoods lacking parks and/or open space, and/or have deteriorated park facilities, located in areas of poverty and un-employment, with a shortage of youth services	Funds allocated to heavily urbanized cities and counties as defined within the procedural guide for the Program	<ul style="list-style-type: none"> • Degree to which the surrounding neighborhood has: 1) a critical lack of park and open space, 2) significant poverty and unemployment, 3) "at-risk youth," and 4) a shortage of the services that are to be provided by the project • Community involvement in project concept • Applicant's organizational capability, readiness to complete, and long-term management plans

Program Name	Intent of Granting Contracts	Allocation Area	Notable Selection Considerations
Nature Education Facilities Program	Financially supports construction and renovation of facilities, buildings, structures, and exhibit galleries that present collections, as well as marine wildlife conservation research equipment and facilities, that increase public understanding and knowledge of California's environmental resources, and inspire stewardship	Funds allocated statewide	<ul style="list-style-type: none"> • Demonstrated need for nature education among the community intended to be served • Design team's experience incorporating learning and discovery opportunities • Demonstrate that a population with limited access to nature education will be served • Applicant's organizational capability, readiness to complete, and long-term management plans
Non-Motorized Trails Grant Program	Financially supports development, improvement, rehabilitation, restoration and enhancement of non-motorized trails, and non-motorized trails interpretive facilities, to increase public access and enjoyment of, public areas for increased recreational opportunities	Funds allocated statewide	<ul style="list-style-type: none"> • Demonstrated need for project, including deficiencies of similar recreational opportunities and demand for project • Organizational ability, including maintenance plans and experience operating similar projects • Additional outside support (e.g. volunteer labor)

Program Name	Intent of Granting Contracts	Allocation Area	Notable Selection Considerations
Recreational Trails Program*	Financially supports development of non-motorized and motorized recreational trails and related facilities, and maintenance of motorized recreation trails	Funds allocated statewide	<ul style="list-style-type: none"> • Demonstrated need, and deficiencies met by the project • Anticipated number of project users • Efforts to include stakeholders in project planning and implementation • Applicant's capacity to plan, design, construct, maintain and operate the project
Riparian and Riverine Habitat Grant Program	Financially supports projects providing public recreational access, awareness, understanding, enjoyment, protection, and restoration of rivers and streams, including the acquisition, development, or improvement of recreation areas, parks, and trails together with at least one riparian or riverine habitat enhancement element	Funds allocated statewide along rivers and streams	<ul style="list-style-type: none"> • Demonstrated need, including deficiencies, opportunities, and consequences if not funded • Preference for unique and innovative projects • Public participation throughout project • Expertise and experience of project team • Applicant's readiness to complete, and long-term management plans

Program Name	Intent of Granting Contracts	Allocation Area	Notable Selection Considerations
Rivers and Mountains Conservancy Grant Program	Financially supports projects that improve watersheds, providing for low-impact recreation and educational uses, and/or restores and protects wildlife area and habitat consistent with the objectives outlined within planning documents published by the San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy, including <i>Common Grounds, from the Mountains to the Sea</i> and <i>Open Space Plan Phase II Final Report</i>	Funds allocated within the legislatively defined territory of the San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy, a political-hydrographical hybrid	<ul style="list-style-type: none"> • Projects selected within one of three geographic “target-areas”: 1) Urban Lands, defined by a socioeconomic formula for disadvantaged communities, 2) River and Tributary River Parkways, and 3) Mountains, Hills, and Foothills [Acquisitions] • All projects must acquire public open space, develop new acreage for recreational use, and/or creates and/or restores habitat • Two tiered selection process with an initial tier of applications funded as determined through project readiness, including but not limited to the availability of all other project funding • Priority to projects with matching contributions

Program Name	Intent of Granting Contracts	Allocation Area	Notable Selection Considerations
Roberti-Z'Berg-Harris Urban Open Space and Recreation Grant Program: Urbanized Area Need-Basis	Financially supports projects satisfying the most urgent park and recreation needs through: 1) acquisitions for open space and recreation use, 2) development and rehabilitation of structures or sites within a park or recreation facility, 3) special major maintenance activities, and 4) innovative recreation programming	Funds allocated to urbanized cities and surrounding territories as defined by the Dep. of Finance	<ul style="list-style-type: none"> • Demonstrated need that is met, preferring projects in the most populated and economically disadvantaged areas of each jurisdiction • Revenue hardships of applicant • Applicant's experience with the type of project, operation and maintenance plans, and readiness • Community involvement and support
State Urban Parks and Healthy Communities	Financially supports the acquisition and development of properties for active recreational purposes, including but not limited to athletic fields, courts, gymnasiums, or facilities for youth soccer, baseball, football, basketball, tennis, and/or swimming	Funds allocated through a statewide split: 60% to southern counties, 40% to northern counties	<ul style="list-style-type: none"> • Demonstrated need or demand of youth for the active recreation facility that is met • Scoring preference for joint-use projects • Residents' involvement in the planning process • Applicant's management plans • Project managers' abilities and experience • Commitment of matching funds

Program Name	Intent of Granting Contracts	Allocation Area	Notable Selection Considerations
Statewide Park Development and Community Revitalization Program of 2008	Financially supports creation of new parks and recreation opportunities in proximity to the most critically underserved communities across California through acquisition, development, or a combination of both to meet the recreational, cultural, social, educational, and environmental needs of a population	Funds allocated statewide	<ul style="list-style-type: none"> • Severity in the lack of usable park space within proximity of the project site, expressed as a ratio of park acres per 1,000 residents within ½ mile • Severity of poverty and low median household income within proximity of the project site • Priority given to creation of new parks • Effort to use community-based project planning
Urban Park Act of 2001 Grant Program	Financially supports acquisition and development of parks, recreation areas, and facilities in neighborhoods that are least served by park and recreation providers while encouraging community participation in, and responsibility for, these areas and facilities	Heavily urbanized cities and counties as defined by the Program	<ul style="list-style-type: none"> • Demonstrated need for services is met • Demonstrated significant deficiencies of parks, park land, and facilities within a one-mile radius • Inclusion of community in project planning • Accommodates and provides outdoor learning opportunities for school pupils and at-risk youth • Replaces blight or contributes to revitalization

Program Name	Intent of Granting Contracts	Allocation Area	Notable Selection Considerations
Youth Soccer and Recreation Development	Financially supports the development of new youth soccer, baseball, softball, and basketball recreation opportunities, including acquisition or development projects	Funds allocated statewide	<ul style="list-style-type: none"> • Demonstrated need for project, including lack of similar facilities and high demand • Demonstrated need for funding assistance • Preference to projects in low-income urban areas with high youth crime and unemployment • Effort to use community-based project planning • Committed match funding for the project • Project managers' abilities and experience • Applicant's operation and management plans

* Denotes federally funded grant program administered by a California state agency

Several attributes pertaining to grant awards made under each program were also noted. This included the project title, applicant's name, the grant program under which the funding was distributed under, the State fiscal year which the award fell within, and a notation of the primary project type as interpreted by the project title, or project description if one was available. Delineated nominal categories of project type include acquisition, development, enhancement, and rehabilitation. The name of the applicant was used to first filter out non-city applications, disregarding proposals from non-profits, local government districts, and joint powers authorities. Then, the applicants' names were used to geographically code funding awards by the jurisdiction. If a given city was a successful applicant for a park and recreation development project grant, the awarded funding was assumed to have benefited park and recreation development within the boundary of that city. As a final attribute, the approximate award date was collected to ensure it fell between July 1, 2000 to June 30, 2015.

To collect data for the dependent variable, a collection protocol began with an initial attempt to access and download, or transcribe, readily available information directly from websites of government agencies. For information that could not be located online, data was requested by contacting agency staff. As a final contingency within the protocol, public information requests could have been made pursuant to state and federal laws requiring inspection of governmental records to the public upon request, yet, use of this method was not required.

Grant award information was successfully collected using the methods outlined above. For 12 of the grant programs, data was transcribed into a spreadsheet using award announcements posted on the California Department of Parks and Recreation website. A

typical example of an award announcement from the Department of Parks and Recreation is included as Figure 4, located on the following page. Information for the two remaining programs was accessed through requests made to the staff of the administering agencies. This included the collection of information about the award history of the California River Parkway Grant Program, administered directly by the California Natural Resources Agency, as well as the grant program of the San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy, which is administered under the California Natural Resources Agency. For the California River Parkway Grant Program, agency staff responded to email correspondence by transmitting a Microsoft Excel spreadsheet with the request information. Similarly, in responding to the data request, staff with the Rivers and Mountains Conservancy exported a Microsoft Access database file to a Microsoft Excel spreadsheet that included all required attributes.

In most cases, the data collection for the independent variables was also downloaded from government websites, provided as tabular data. The one exception was “Park Need,” which was taken from the need scores included in the Los Angeles County’s 2016 Countywide Comprehensive Park and Recreation Needs Assessment, which was collected by requesting the data from staff at the County Department of Park and Recreation through email. It was provided in a geographic information system file format. This file included the desired information as attribute data. To avoid error from transcription, the attribute field was exported to a Microsoft Excel spreadsheet using ESRI ArcMap software.



**California Department of Parks and Recreation
RZH Urbanized Need Basis Grant Program
Funded Projects
2002 Bond Act**

<u>Grantee</u>	<u>Project Name</u>	<u>Grant Amount</u>
Arden Manor R.P.D.	Deterding Park Pool Filtration System	\$53,000
City of Alameda	Woodstock Park Field Renovation	\$176,000
City of Anderson	Anderson Teen Center Rehabilitation	\$251,000
City of Ceres	Ceres River Bluff Regional Park – Phase I & II	\$32,000
City of Cudahy	Cudahy Park Basketball Courts	\$247,000
City of Cupertino	Cupertino Environmental Classroom	\$251,000
City of Duarte	Royal Oaks Park Building	\$251,000
City of La Mirada	Neff Park Renovation	\$176,000
City of Norwalk	Vista Verde Park Restoration	\$251,000
City of Pasadena, Parks & Recreation	Villa Park Restroom Remodel	\$152,000
City of Riverbank	Riverbank Teen Center	\$251,000
City of Riverside, Parks & Recreation	Bobby Bonds Teen Center	\$251,000
City of San Bernardino	Perris Hill Senior Center Expansion	\$251,000
City of Santa Barbara	Bohnett Park Expansion	\$201,000
City of Santa Rosa, Parks	Martin Luther King Jr. Memorial Park	\$242,000
City of Union City	Charles F. Kennedy Play Lots	\$251,000
City of Visalia	Visalia Park Development	\$251,000
City of Vista	Raintree Park Playground Equipment	\$7,989
City of Vista	Vista Playground	\$63,000
Sunrise R.P.D.	Robert Frost Neighborhood Park	\$251,000
Total Projects Funded:	20	\$3,859,989

Figure 4. Award announcement from California Department of Parks and Recreation

Source: “Urbanized Area Need Basis Grants,” California Department of Parks and Recreation; California Natural Resources Agency, n.d; Web; 26 Sep. 2015.

Annual city management cost and city park and recreation expenditures occurring between July 1, 2003 to June 30, 2015 were acquired from California State Controller’s website. More specifically, accounting summaries from the Controller’s City Annual Reports for Fiscal Years 2003/2004 through 2014/2015 were accessed through an online internet data portal. This information was downloaded as an extensive Microsoft Excel spreadsheet for all of California and sorted to capture the relevant data.

All other data to support the independent variables came in the form of demographic data produced by the United State Census Bureau, downloaded through the

American FactFinder website, or from the Southern California Association of Governments and downloaded from the agency website. Data collected from the United State Census Bureau included total population counts from the 2010 United State Census, as found in table P1 within the 2010 Demographical Profile Summery File 1. Estimates of the labor force population and total employment, as reported at the city-level, were downloaded from the Southern California Association of Government website, and used to calculate a job density ratio. The remaining demographic information was obtained as 5-year estimates from the 2014 American Community Survey, including: (1) age of housing stock as provided in table B25034; (2) median household income as found in table DP03; and (3) population of Hispanic and Latinos by race located in table DP05. A statewide estimate for median household income also was acquired for use as a threshold in identifying “Economically Disadvantaged Communities.” The job density ratio, median household income, and housing stock age information was used to calculate the categorical index of land use classifications, “Rough Urban Land Use.”

As the aim of this portion of the study is to understand *past* phenomenon, secondary data gathering was selected as the most feasible collection method. Other quantitative social science research methods were considered, including highly structured surveys and interviews, but then quickly eliminated due to a lack of time and resources. Therefore, in selecting secondary data sources, significant consideration was given to the notion of measurement validity. As defined by Remler and Van Ryzin the concept “refers to how well the measure actually represents the construct of interest - the thing we are trying to measure” (106).

The types of validity considered for this sequence of research include face, content, and criterion-related validity. In first considering face validity, measures were validated at the onset of the research by looking at and critically considering the relationship between the constructs being measured and the measurements themselves. Using the dependent variable as an example, “Competitive Grant Funding” provides sufficient face validity as it is a direct measure of the allocation of State subsidies for local capital parks and recreation projects. Similarly, face validity of the measures associated with each independent variable was considered. For instance, statistically representative estimates of household income, race, and ethnicity were determined to be a valid way to measure socioeconomic characteristics. Adequate face validity was determined for all other measures.

In considering content validation, an effort was made ensure that all the major dimensions of the constructs behind each variable are included in the measurements. The most critical consideration was given to “Park Need,” the use of “City Management Spending” to measure administrative capacity, and the development and utilization of a rough city type index, the “Rough Urban Land Use.” “Park Need” was considered to be both valid and comprehensive. In contrast, for city administrative capacity, the various dimensions required to measure this construct were identified to go far beyond how much is spent on city management. Other indicators such as the experience of city staff, leadership, and communication styles are all broader concepts that fall outside of the selected indicator. Similarly, the rough classification of city types is likely lacking inclusion of all relevant aspects that describe major differences in land use. Yet, through the pragmatic stance of this research, these more roughly constructed measurements are

considered practical for the purpose at hand, even if these imperfect dimensions may create concerns about the accuracy of the results.

The last type of measurement validity considered was criterion-related validity. For this portion of the study, it pertains to the predictive legitimacy of the statistical testing. By determining if empirical evidence exists that a phenomenon is really being measured, validity can be verified. Yet this research design does not use a control group, therefore, the study design is subject to concerns regarding external validity, or the generalization of inferences.

Aside from ensuring specific measures are valid means of gauging the phenomena, reliability and measurement error were also considered. This is because reliable data, absent of measurement error, is necessary to successfully identify and describe statistical relationships among sampled cities, as well as to classify individual cities in a manner that allows for generalizations. Thus, a review of measurement reliability and error began with the consideration of interrater and parallel-form reliability, in which interrater reliability refers to the degree that raters give consistent estimates of the phenomenon they measure while parallel-form reliability refers to the consistency of results obtain through the use of multiple formats to collect data within the same content domain (Remler and Van Ryzin 118-124).

In considering interrater reliability, observations made while inventorying the condition of park facilities for the 2016 Los Angeles Countywide Comprehensive Park and Recreation Needs Assessment could have been potentially varied, particularly as it is assumed that multiple observers were involved. Observers may also introduce a bias, a form of measurement error that can lead to data distortion (Remler and Van Ryzin 115-

115). However, in evaluating the degree to which considerable unreliability and bias may have been introduced, it is assumed that a combination of observer training and the use of well-constructed standardizing rubrics mitigate these concerns. In further regard to parallel-form reliability, the American Community Survey is highly standardized. Yet, the form is available in multiple languages, introducing the potential for slight differences in the types of responses by virtue of lingual distinctions in how survey questions are proposed. These differences, if any, are likely minor, therefore, for the purposes of this research it is assumed that the professional research staff at the United State Census Bureau provided for adequate parallel-form reliability.

Another type of reliability is connected to the issue of internal consistency of the indicators within indexes and scales (Remler and Van Ryzin 118-123). This form of reliability relates to how well the indicators within the “Rough Urban Land Use” index and “Park Need” scale correlate, and if the correlation is strong enough to suggest that the same object or concept is being reliably measured in both cases. High correlations are not expected among the classification in either variable as the indicators all measure relatively different concepts.

Sampling Procedures for the Quantitative Component

The part of the study investigates communities within the greater Los Angeles Region, encompassing portions of five counties: Los Angeles, Orange, Riverside, San Bernardino, and Ventura. This population is defined in relation to the problem and hypotheses addressed by the research. Or rather, stemming from the concerns described by other researchers and planning practitioners, the problem investigated by this research is focused on park equity within the larger metropolitan area of southern California. While the majority of the competitive State grant programs for local park and recreation improvements allocate funding to recipients working throughout California, the scope of the problem, the research hypothesis and sampling frame are limited to the greater Los Angeles Region. Due to these limiting factors, a non-randomized design was used to select a sample within this study area. The following section describes the sampling methods while defining the specific sampling frame and the resulting sample. The issues of generalizability are also discussed.

Cities were drawn as proxies for communities. The process began with a geographical selection; a *convenience sample* was selected within a contiguous area large enough to conduct statistical testing without being overly large that data collection became burdensome. The sample area is commonly known as the San Gabriel Valley, encompassing 31 cities as defined by the membership in the San Gabriel Valley Council of Governments. This non-random selection is considered ideal due to the relative size of these cities, and the degree of variation in population density and land use patterns, considered to roughly reflect the overall study population.

Variation in population density and land use within the sample is demonstrated by Figures 5 and 6. The central area, including cities such as Alhambra, Azusa, Rosemead, El Monte, and Baldwin Park, is more densely developed, comprised of a mix of residential and non-residential land uses. Surrounding the northern and southern edges, foothill cities such as Pasadena, San Marino, San Dimas, Claremont, Walnut and Diamond Bar are less densely populated, dominated more by single family housing. Additionally, as shown in Table 5, the study area exhibits varying levels of income, also typical of the larger region, including a pattern of foothill cities that tend to be wealthier.

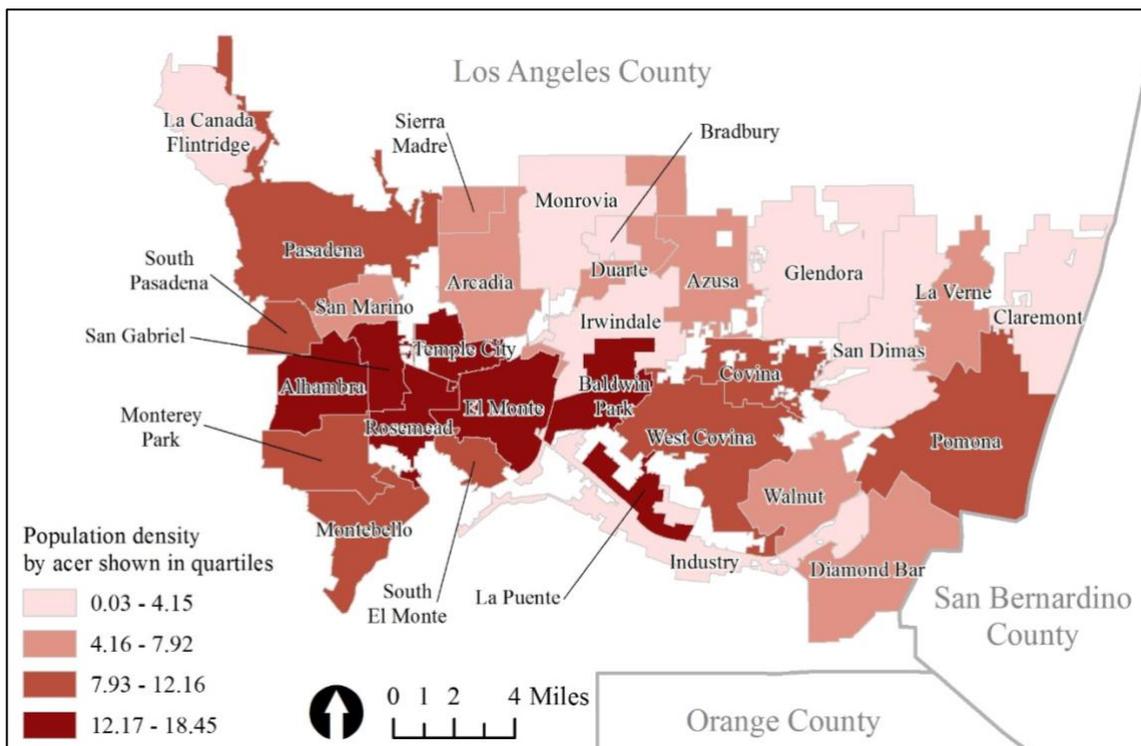


Figure 5. Map of population density of the San Gabriel Valley aggregated by city

Source: United States; Department of Commerce; Census Bureau; *2010 Census of Population and Housing*; American Community Fact Finder; Web; 15 Feb. 2016; table P1, summary file 1.

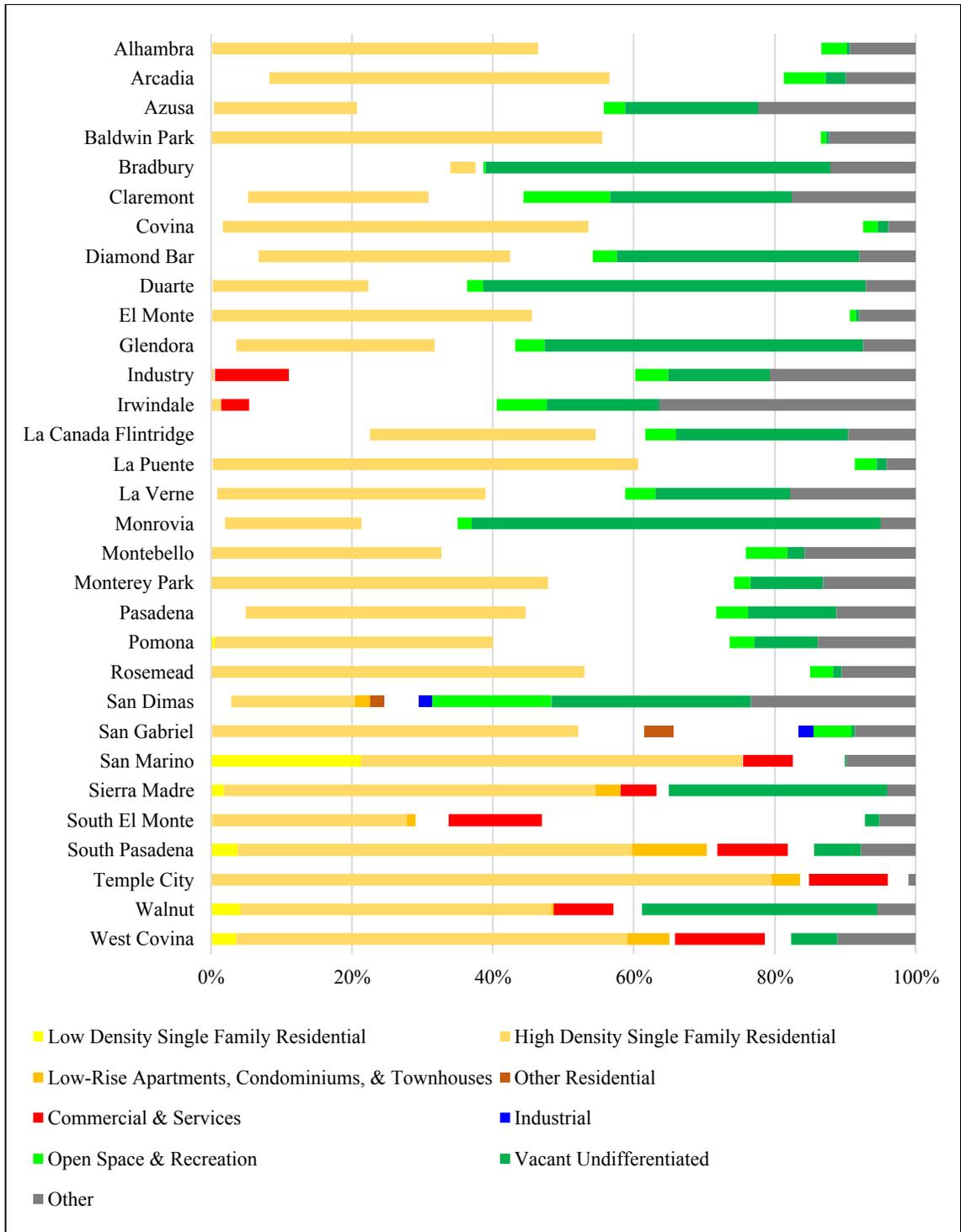


Figure 6. Land use survey summary for San Gabriel Valley cities

Source: Southern California Association of Governments; 2005 Land Use Survey;

Southern California Association of Governments GIS Library; Web; 10 Feb. 2016.

Table 5. Median household income estimates for San Gabriel Valley cities

Category	City	MHI	City	MHI
Valley center	Alhambra	\$53,195	Monterey Park	\$54,821
	Azusa	\$52,087	Pomona	\$48,993
	Baldwin Park	\$51,189	Rosemead	\$44,524
	Covina	\$64,496	San Gabriel	\$56,238
	Duarte	\$62,186	South El Monte	\$44,498
	El Monte	\$38,906	Temple City	\$63,803
	La Puente	\$54,660	West Covina	\$67,069
	Montebello	\$47,562		
Foothills	Arcadia	\$80,147	Monrovia	\$72,034
	Bradbury	\$112,273	Pasadena	\$70,845
	Claremont	\$89,648	San Dimas	\$78,911
	Diamond Bar	\$90,901	San Marino	\$119,300
	Glendora	\$74,169	Sierra Madre	\$90,780
	La Canada Flintridge	\$151,786	South Pasadena	\$80,479
	La Verne	\$75,662	Walnut	\$100,934
Industrialized	Industry	\$51,890	Irwindale	\$60,750

Source: United States; Department of Commerce; Census Bureau; *2014 American Community Survey 5-year Estimates*; American Community Fact Finder; Web; 23 Apr. 2016; table DP03.

Standing as outliers within this initial sampling are the cities of Bradbury, Irwindale, and Industry. Bradbury is small enclave with little commercial and industrial land use. In 2010, it had a total population of 1,048 with a population density of approximately 0.82 people per acre (U.S. Department of Commerce, Census Bureau.). The latter two are cities that are highly industrialized with very low population densities of approximately 0.23 and 0.03 people per acre, respectively (U.S. Department of Commerce, Census Bureau.). These three communities are considered to be anomalies. The low population base within the city of Bradbury is likely to exaggerate “Competitive Grant Funding” awards as a comparative measure other San Gabriel Valley cities. For the cities of Irwindale and Industry, an expansive industrial and commercial base provides tax revenues for a small population residing within limited residential areas; these are employment centers absent of significant resident populations. These characteristics are not representative of the larger population of within the region.

As a result, these outliers were removed, resulting in a non-randomly selected sample of 28 cities. The removal of these outliers also contributes to the possible generalization of the research. Procedures described here are for the purpose of observing correlation and not for experimental testing. As such, the sampling approach is considered to allow observed patterns and associations to broadly relate to the larger study population within the greater Los Angeles Region. More so, the theory developed from this study is intended to be applicable to other regions that may struggle with similar problems.

Data Collection Methods for the Qualitative Component

Data collection for the second research component sought to obtain quotations of spoken words about the experiences and opinions of knowledgeable senior city staff. It also sought to acquire information regarding their actions and the actions of their park service provider employer. The main intent was to collect theoretical insights about possible causal mechanics between two variables, which are the administrative capacity of cities as park service providers and the amount of compensatory park subsidies provided by competitive grant programs. This portion of the study is used in conjunction with the results for the quantitative analysis to describe relationships that may support the research hypothesis, the alternative hypothesis governed by the “Compensatory Park Funding Equity Theory,” or support to the construction of new theories.

Since this portion of the study addresses potentially sensitive topics regarding the adequacy of city governments’ services, and their technical and administrative capabilities in meeting community needs, in-depth interviews were selected as the most appropriate data collection tool. Due to my geographical separation from the greater Los Angeles Region, and inability to travel to conduct in-person interviews, telephone interviews were chosen. The following outlines the development of a semi-structured telephone interview data collection approach organized to explore topics related to capital park and recreation projects and competitive funding programs. Similar to the data collection methods described for this first portion of the study, the following outlines the steps taken to prepare the raw data for analysis and discusses relevant issues of research reliability, validity, and measurement error.

In selecting semi-structured telephone interviews, two primary considerations were given: first, the ability of the participants to communicate the information that is intended to be collected, and second, the extent to which truthful responses could be reasonably expected. City park directors, or the equivalent position where administrative structures differ, were determined to be the most suitable group in which to obtain both pertinent information regarding the process of preparing and submitting competitive grant proposals for capital park projects and the overall management of the city park systems. Furthermore, it was identified that open-ended questioning had the best likelihood of resulting in the detailed, information rich answers being sought.

While there is no clear-cut way to control for or assess the truthfulness of responses from this group, professionals such as park directors were considered to have a genuine interest in the exploration of this topic as it relates to their profession. If for no other reason, their ethics as civil servants also supports a reasonable expectation of honesty and openness. Beyond this assumption, dishonesty was mitigated by the specific questioning methods, such as the use of truly open-ended questions and probing. Yet, the potential for receiving untruthful responses remained, particularly given the sensitivity surrounding issues of staff capacity and performance. There may have also been intervening perceptions held by the participants that the proportion of State financial assistance delivered to their community is less or greater than intended by State policy, which may have led them to make misleading statements. Ultimately, this concern relates to measurement reliability, and is not considered to be significant as the information collected was for theory analysis, not empirical testing.

The next step in formulating these methods was to carefully select a specific approach to open-ended interviewing. Patton identifies three specific choices: “(1) the informal conversational interview, (2) the general interview guide approach, and (3) the standardized open-ended interview” (280). Apart from ranging in the level of question standardization, these approaches are further distinct in terms of the conversational skills required by the interviewer to control for their own effect and the length of interview time needed to collect information (Patton 280-290).

In comparing the specific strengths and weaknesses, the general interview guide was selected. Patton further describes this approach as “outlining a set of issues that are to be explored with each respondent before interviewing begins. . . . the actual wording of questions to elicit responses about those issues is not determined in advance” (280). This afforded myself, as the interviewer, the freedom to decide how best to direct the conversation, prioritizing how the limited time with the participant was spent (Patton 280-285). The outline also helped to provide some degree of consistency in the topics discussed between interviews. Yet, variation can still affect measurement reliability. For instance, the specific wording used in the framing of a question could have led to the omission of important details within some of the interviews, reducing the reliability of the overall data. This was considered a real threat as collection involved a novice interviewer. However, the flexibility offered by the approach was considered a justifiable tradeoff.

In proceeding with the development of specific methods under this approach, an open-ended interview guide was prepared, which is provided on the following page as Figure 7. This guide is inclusive of key topics, suggested wording, and potential follow-

up probes, allowing the interviewer the flexibility to adapt as needed to explore aspects of these topics as they arose and to expose unclear wording. This flexibility is the key advantage of conducting so-called “less structured interviewing” as it enabled the collection of rich information that was considered more likely to produce new hypotheses than more structured survey and interview methods (Axinn and Pearce 5-7).

As important as considering the interview approach, careful attention was given to discussion topics and questioning in order to maintain measurement reliability and lessen measurement error. Consideration was given to how questions were to be asked, the types of questions, and the effects of how topics were sequenced, the interviewer’s use of probes and explanatory responses, and the amount of detail that was sought. In doing so, the intent was to ensure only “good questions” were asked, which Patton describes as being open-ended, neutral, singular, and clear (295). This included avoiding bias in the form of leading questions as well as noise from unclear and muddled questioning.

To avoid bias, care was taken to include example questions within the guide, worded in such a way as to neutrally elicit thick responses. Instead of asking *why* something is challenging, the guide put forth suggested questions such as “*What* are the challenges...” as to not imply that a particular cause-effect relationship was being assumed (Patton 313). Questions with dichotomous responses were largely avoided as respondents were not provoked to provide any detail aside from a one-word response such as “no” or “yes.” Instead, the guide aided in prompting open-ended questions that

Interview Guide: Park and Recreation Development Projects and Grants

Project difficulties: What are the challenges to creating *new* parks and recreation facilities?

Can you say more about that? Can you give an example of that experience?
What about other types of capital park projects?

Project objectives: What park and recreation objectives are currently being met by the City's capital improvement plan?

Where do these objectives come from? Can you give me project-specific examples?

Use of grants: Has the City submitted proposals to competitive park grant programs? If so, explain those/those experience(s) to me.

Note: if 'no', skip to subsequent topic about experiences applying for grants.

What challenges has the City faced? What successes? Can you say more about that? Why did that happen? What were the effects of that on the City?

Applying for grants: Who at the City has historically participated in grant writing?

Who are the decision makers? What are important skills? What has been the intent of seeking grant funds? Can you say more? How competitive are the City's proposals?

Competitive grants: From your perspective as staff, what are your overall opinions about the State's use of competitive granting to assist local capital park projects?

Can you give me an example of that? Do you feel it is equitable? Effective?

Program compatibility: How about the compatibility between the goals and objectives of State grant programs and that of this City?

Elaborate? Can you give me an example of that?

Other governance models: What would you like to see happen if the State considered a different approach to assisting with local park and recreation development?

What might that look like? Why would this be preferable?

Management of projects: Who is managing park projects? What projects have they worked on at the City? What knowledge and skills qualifies them for this job?

Toolbox of detail probes: "who," "what," "where," "when," and "how"

Figure 7. Semi-structured guide for interviewing city staff

demanded elaboration. This was done while also being careful to avoid suggestions toward predetermined responses. For example, instead of asking what can be improved about State grant programs, a more neutral question was suggested within the guide that requested that the interview participants identify what they want to see done differently.

Specific topics outlined in the guide related to difficulties in creating new parkland and recreation facilities, project objectives, use of grants funds, preparation of grant applications, perceptions about competitive grants, and potential policy alternatives that provide local assistance. To avoid interviewer fatigue from recalling past activities, the guide included suggested ordering. However, it was not intended that this ordering be followed in exacting detail. The first focus was on present-day knowledge. The guide suggested present tense questions before referencing questions prepared in the past tense. Due to the threat of speculation, questions about the future were avoided altogether. Topics were further ordered following the advice of Patton, to elicit “relatively straightforward descriptions” of behaviors, activities, and experience as a means of building context before collecting the participant’s opinions (294-295).

The topic that was considered to be most threatening to the interviewees relates to the skills and knowledge of project managers and other city staff, and their performance as affective public servants. This topic was therefore arranged toward the end of the guide so that it was discussed “once some rapport and trust” was developed in the interview (Patton 294). Notably, participants were not directly asked about their own performance as administrators, yet a perception that their performance was being evaluated was likely preserved by the interview participants.

In order to elicit those thicker responses characteristic of less structured interviewing and to support the most successful content analysis, and to further guide the conversation, cognitive probing and recognition responses were also incorporated into these procedures. Probing refers to the use of follow-up statements and questions to provoke the interviewee to be more detailed and to elaborate (Patton 324). This included directly requesting further detail by asking “who,” “what,” or “how,” or to elaborate on statements such as “Explain that to me.” or “Can you give me an example of that?”

As a final technique, all attempts were made to maintain a two-way conversation. This includes carrying on a conversation dialog in which I, as the interviewer, explained why I am interested in the information solicited by a particular line of questioning and whether the interviewee was successfully providing that info. Maintaining this two-way dialog was intended to ensure that the participants felt respected and otherwise motivated to participate in a meaningful way (Patton 327-330).

Telephone interviews were conducted over a two-week period, followed by a week of manual transcription and data preparation required for subsequent content analysis. Collected raw data was in the form of interviewees spoken quotations captured through the digital-audio recording of interviews through a telephone pick-up microphone. The reliance on audio recording was selected due to two major perceived advantages. Audio recording was used as a highly accurate way of capturing what was said while allowing the interviewer to concentrate on the participant and the dialog; the attention of the interviewer was focused on planning additional questions and topics outside of the prepared guide as well as devising follow-up probes to elicit further explanation and clarification (Patton 348-349). Notes were also taken by the interviewer,

but only for limited use in documenting important things that were said, and as a tool to help formulate new questions as the conversations proceeded. Notes recorded during the interview were used only to capture key phrases, major points, and keywords.

The audio recordings were then transcribed prior to analysis, which was a laborious activity. As such, several controls were incorporated to aid in the successful collection of high-quality recordings. The recording device was fully charged before each interview, and the digital recording capacity and functionality and clarity of the telephone pick-up microphone checked. As the interviewer, I conduct the telephone interviews at my home in a private room using my personal cellphone. When scheduling interviews, participants were encouraged to locate themselves in a quiet and private location and to use telephone equipment appropriate and authorized for this use. As needed during the interviews, requests were made to the participants to speak clearly, and not too fast. Additionally, to prevent the collection of trivial data, the recording was turned off at times when the discussion become irrelevant and at the end of the phone interview.

After each phone interview, the digital file was reviewed at the soonest convenient time, within a matter of hours. Further notes were taken, particularly if any part of the conversations were identified as missing from within the audio recordings. These post-interview notes were also used as quality control, capturing observations about the participant's reactions, the interviewer's self-assessment of performance, and the conditions, time, and date. These notes were then used as a tool to assist with manual transcription of the audio recordings into Microsoft Word files.

As a central principle in the development of this data collection procedure, ethics were considered in terms of the researchers' obligations to the human subject

participants. Consistent with the principles presented within a training course offered by the Collaborative Institutional Training Initiative Program, this includes careful attention to justice, conflict of interests, risks, benefits, and subjects' confidentiality, cooperativeness, and comprehension. In this respect, justice, or the administration of fairness, was considered in a variety of ways. The interviewer refrained from collecting unnecessary information that could potentially cause participants harm or the risk of harm, such as privileged information about the employers. The collected information was kept confidential. It was also not assumed that the participants had fully comprehended and appreciated the ramifications of their involvement without the proper informational disclosures. Therefore, data collection from any and all participants required completion of an informed consent process.

This process aimed to ensure the interviewees volunteered their participation after reviewing all relevant information. The use of a consent form provided a mechanism to provide this confirmation. In outlining this process, the consent form was first provided to the prospective participants, containing pertinent disclosures through statements about the voluntary status of the requests, the research purpose, information about the individuals and institution involved in the research, the relevant data collection procedures, the requested commitment, availability compensation, an assessment of the anticipated risk and benefits from their participation, and how the information obtained would be handled and shared. This informed consent form is included in the appendices of this document as part of the human subject research protocol approved by the Instructional Review Board.

In terms of risks and benefits, it was expected that participation in this study would provide no more than minimal risk or discomfort, which means that participants should not encounter any more difficulty in participating in the interview than they encounter in their normal daily life. However, there is always the chance of an unexpected risk. The foreseeable risks in this study included an accidental disclosure of private or identifiable information, or discomfort by answering questions that were perceived as embarrassing or sensitive in nature, such as the performance and capabilities of project managers. In light of this, participants were repeatedly reminded that they could withdraw from the research study at any time without penalty. In terms of benefits, the participants were not expected to receive any direct benefit from their participation; however, this research is intended to add to the knowledge about the compensatory equity performance of grant programs administered by the government of the state of California. Their involvement in the research may also benefit other institutions with similar concerns about equity performance, such as local government and private philanthropic entities that administer granting programs.

To provide privacy to the participants, their identities were kept strictly confidential by a process in which I, as the principle investigator, removed from the raw data all names referencing persons, even if those referenced individuals were not a participant. The names of city government institutions and other possible identifiers were also removed. Raw data was further protected by using a non-interview-specific coding system. The group of cities to which the interview participants belonged was used as an identifier; data was coded as either belonging to a participant employed at a city receiving the highest rates of “Competitive Grant Funding” or the lowest. These non-interview-

specific codes were also used to link audio recordings to my notes. No coding was using to link specific participants to their stated comments.

Following each interview, paper scheduling notes were shredded. Additionally, all emails sent to or received by participants and prospective participants were deleted from my personal email account. To further ensure confidentiality, all raw data generated by the interviews was erased or destroyed once the research study was completed, including audio recordings, transcriptions of those recordings, and notes that were taken by the interviewer during the interview. Surviving the analysis is summary information and other anonymously formatted data such as key statements.

As a final ethical consideration, conflict of interest was mitigated by limiting those who were involved in raw data collection, and its handling and analysis, to only the primary investigator. I am a graduate student that has no opportunity for personal financial gain from this research. While I was previously employed by a park service provider serving much of the sample population and participated in the writing of applications and proposals submitted to competitive State grant programs, there were no identified conflicts that would have cause me to intentionally harm or break the confidentiality of the participants. Furthermore, while conducting the study, I was not in a position to directly influence any grant funding recommendations effecting the study population nor will I be in such a position in the foreseeable future.

Sampling Procedures for the Qualitative Component

The sampling procedures of this phenomenological portion of the study relied directly on the results obtained in the first component. The intent was to solicit telephone interviews with five park directors, or the equivalent staff position, working at different San Gabriel Valley cities. Sampling procedures began by drawing two sample frames from the initial 28 cities selected within the first part of this study, selecting six cities which were identified as receiving the lowest average “Competitive Grant Funding” values and four additional cities identified as receiving the highest average values. Cities receiving no amount of grant funding were excluded from the selection in order to control for cities that have not attempted to compete. This reflects a focus on exploring and comparing administrative process among cities that participated in grant programs with varying degrees of success in receiving park and recreation development grants.

The desired samples included staff from a total of five cities, therefore, the sampling frames were purposefully twice as large as needed, allowing for a nonresponse rate of up to 50% to account for potential low rates of contact and cooperation. These sample frames were then ordered from lowest to highest, and highest to lowest, respectively, based on the calculated average “Competitive Grant Funding” values generated from the quantitative analysis. For each city, the director of the park and recreation departments, or the equivalent, was then determined by visiting the cities’ websites or contacting city halls by phone. The work email addresses and telephone numbers for these individuals were also recorded on interview scheduling notes. Individuals working at the three cities receiving the lowest average “Competitive Grant Funding” grant award values, as well as those at the two cities receiving the highest

average values were then contacted through email to solicit their participation in a telephone interview.

The requests were accompanied by a statement that between 30 to 45-minutes of their time was being requested to complete the interview over a two-week period. A consent form was attached to the emails to provide disclosures about the study relevant to the best practices of ethical social science research with human subjects and the specific protocol for this research as approved by the Instructional Review Board for California State Polytechnic University, Pomona. The email messages also offer the prospective participants the opportunity to ask questions, and to withdraw at any time from participating in the interview. Figure 8, located on the following page, provides an example of this email request.

In instances where the contacted individuals were non-responsive after 2 business days, a follow-up email was sent. When individuals were non-responsive after 3 additional business days, or for those who responded with an initial unwillingness or unavailability to participate, subsequent email requests were sent to individuals working at the other cities ordered next highest, or lowest, as applicable. These subsequent requests followed the same procedure until the desired number of individuals was confirmed as willing and available, with 3 from cities with high “Competitive Grant Funding” rates and 2 from the low range cities. Individuals within the sample frames not initially contacted were drawn upon to fill gaps in instances where confirmed participants subsequently decline or become non-responsive to requests to schedule an interview time. This process is visualized in Figure 9.

Subject: Interview request from Cal Poly Pomona Urban and Regional Planning grad student

Dear Mr./Ms. _____,

I am a graduate student at California Polytechnic University, Pomona (Cal Poly Pomona) with the Department of Urban and Regional Planning. As part of a master's thesis research study, I am interested in your knowledge of city government behaviors and your experiences and opinions related to park and recreation development projects and grants. This includes difficulties that you may have encountered, details about project management, objectives met by projects, and information about the request for, and use of grants by the City of _____. I am also interested in your opinions about potential alternatives to competitive grant programs, regardless of whether the City typically uses grant funding. I would like to request approximately one-half hour of your time to be scheduled between November 6th, 2017 and November 17th, 2017 to participate in a semi-structured conversational telephone interview.

I am requesting a response indicating your initial willingness and availability to participate, or not. While you can withdraw from the study at any time, your decision to participate should be well informed. To aid you in your decision, please carefully review the attached consent form. It further describes the research purpose, the specific request, the procedures, and an assessment of likely risk and benefits. You will be asked to sign the form prior to beginning an interview as required by law and University policies. The Cal Poly Pomona Institutional Review Board has reviewed and approved the protocol used for this research as it pertains to the involvement of human subjects under protocol IRB 17-109.

While I am the primary investigator for this study, my thesis is overseen by a committee composed of two faculty members within the Department of Urban and Regional Planning. This includes Dr. Jerry Mitchell, serving as the chair of this committee, and another Department faculty member. An outside practitioner is also involved as a third committee member. These three individuals provide guidance to me, including the methods to be undertaken in this proposed telephone interview.

Thank you in advance for considering this request. Please contact me with any questions. I can be reached at (310) 720-XXXX.

Sincerely,
Rob Romanek

Figure 8. Example email requesting an interview

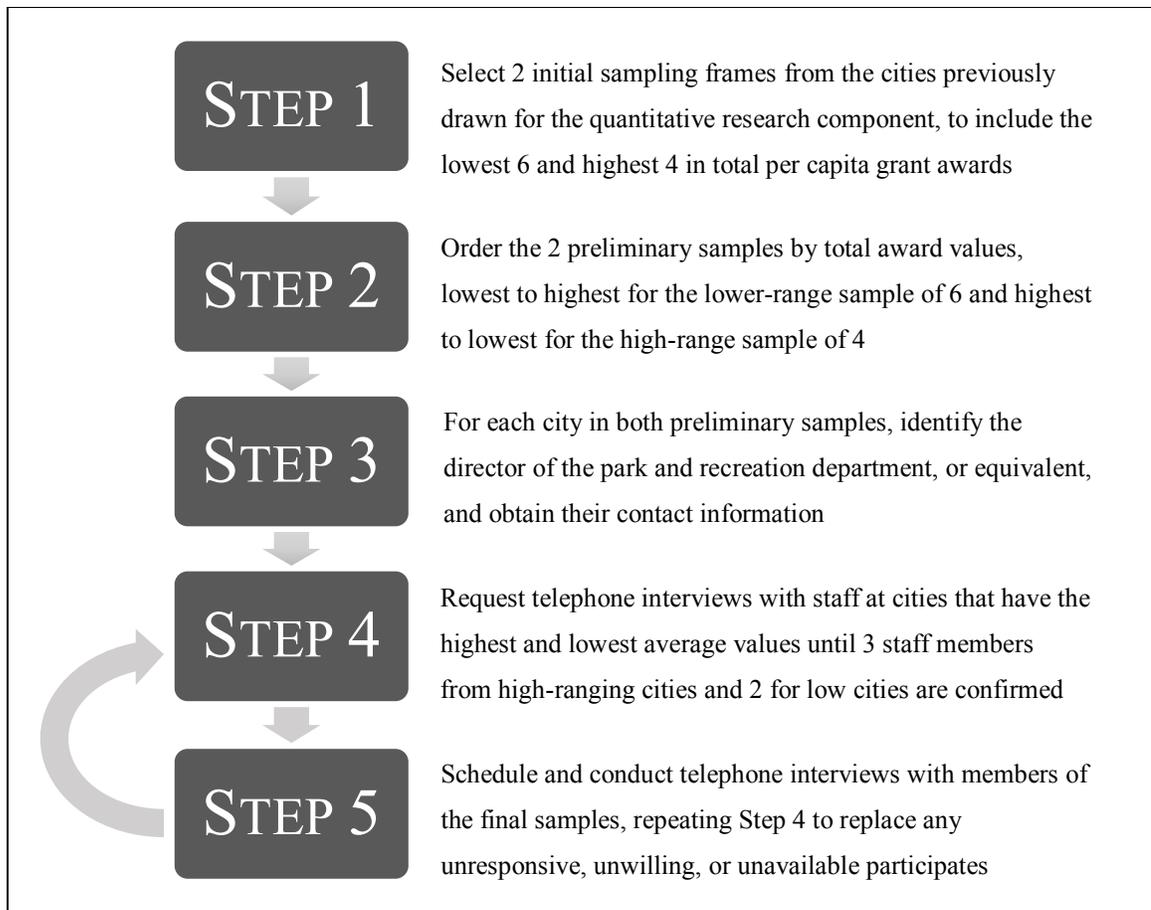


Figure 9. Flowchart of qualitative research sampling procedures

A small non-random selection approach was used as this sampling was developed to collect qualitative data with the intention of better describing theoretical relationships. That is to say that the small, focused sample size of 5 was selected after considering the selected collection method, type of data to be collected, and the amount of time and resources available. More so, by using a sample that included staff working at cities within the extreme ends, the intent is to efficiently collect and analyze a range of insights. The use of a 60% by 40% split in the number of interviews, or rather, the use of two district samples, was determined based on a decision to focus data collection on the identification of possible barriers that some city governments may face in obtaining

competitive grants while attempting to control for barriers common to all cities. This is meant to allow for a comparison of insights, and to increase the overall applicability of theories that can then be inferred from the overall study population. Patton describes this as an “extreme case strategy” under his construct of purposeful sampling in which samples are drawn to “learn a great deal about issues of central importance to the purpose of the research” (169-171).

While sampling information-rich individuals was an important aspect to the success of these procedures, one implication was the exposure to coverage bias. However, as related to qualitative research, such a concern about empirical generalization was determined to be largely unimportant. Yet, there were other vulnerabilities applicable to these procedures. The potential non-responsiveness of city staff to participate in interviews could have resulted in low response rates, including both low contact and low cooperation rates that could influence the study results by introducing a non-response bias. In other words, the intent of purposeful sampling could have been diminished by low response rates. Nonresponse may have reduced access to the most knowledgeable individuals, which could have impacted the results of the research. In light of this vulnerability, the response rates were considered and are discussed within the subsequent chapter describing the research findings.

CHAPTER 4. FINDINGS – QUANTITATIVE DATA

This chapter both identifies and interprets descriptive statistics and outputs from regression modeling. Descriptive statistics are first presented. Several map figures are then shown to provide geographical illustrations for several key variables. The second portion of this chapter presents the results from hierarchical multiple regression, including an initial model and three subsequent models, with each ordered to enter additional independent variables. Those identified as possibly involved in a causal relationship are then identified and discussed.

Table 6 presents descriptive statistics for each interval and ratio-based variable as well as several measures used to calculate other variables included in the regression models. For instance, median household income was used to calculate a nominal measure for “Economically Disadvantaged Communities.” For each included variable, the table includes the minimum and maximum values, range, mean, and standard deviation.

As shown in Table 6, the dependent variable, “Competitive Grant Funding” averaged \$34.95 per resident over a 15-year period. The box plot presented as Figure 10 further shows that many cities have received no assistance from these sources. Conversely, several cities stand out as receiving the highest values. These include the cities of Durate, San Gabriel, Claremont, and El Monte. The range shows a \$213.90 difference between the maximum and minimum amounts—a substantial difference. These statistics also show a rough grouping, including cities that have received no assistance, those receiving very little, a locus receiving modest assistance, and a group of cities that have received a substantially larger benefit.

Table 6. Descriptive statistics

Variables	Range	Max	Min	Mean	Standard deviation
<i>Park and rec. development funds</i>					
Competitive Grant Funding	\$213.90	\$213.90	\$ -	\$34.95	\$52.30
<i>Demographic</i>					
Population Size	138,141	149,058	10,917	53,160	35,683
Pop. Aged Under 18 Years	10.4%	28.2%	17.8%	22.6%	3.1%
Pop. Aged Over 64 Years	11.2%	19.1%	7.9%	13.9%	3.2%
Latino (percentage of population)	80.0%	86.9%	6.9%	39.9%	24.1%
Asian (percentage of population)	56.6%	64.1%	7.5%	28.9%	21.1%
Black (percentage of population)	10.7%	10.8%	0.1%	2.8%	2.7%
<i>Land use</i>					
Housing Built Before 1970	74.2%	92.3%	18.1%	61.2%	17.8%
Job Density Ratio	0.110	0.956	0.843	0.902	0.035
<i>Economic and institutional</i>					
Median Household Income	\$112,880	\$151,786	\$38,960	\$70,707	\$24,814
Park and Recreation Spending per Capita	\$464.83	\$500.48	\$36.66	\$154.25	\$108.41
City Management Spending per Capita	\$335.14	\$361.63	\$26.49	\$111.45	\$78.34
Notes: n = 28; Pop. = population; compiled competitive grant funding is from July 1, 2000 to June 30, 2015; population size was compiled for 2010; other demographic variables and median household income are compiled as estimates for 2014, job density ratio was calculated for 2012; city expenditures are annual averages between 2003 to 2014.					

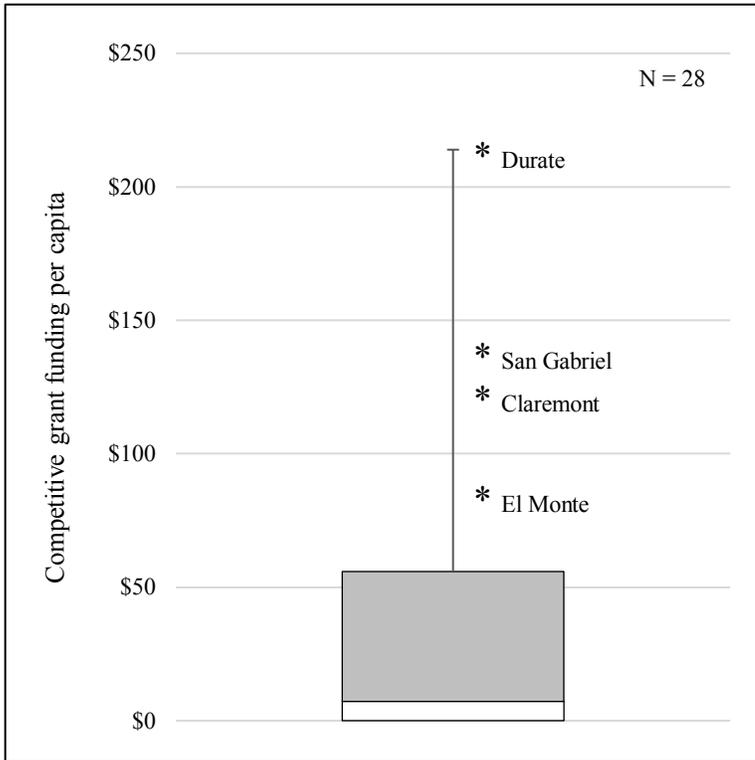


Figure 10. Competitive grant funding per capita from July 1, 2000 to June 30, 2015

The Latino and Asian populations had the most variation among the reported demographic variables with a range of 80.0% and 56.6% respectively. The rates for the Latino population had a low of 6.9% and a high of 86.9% while the lowest rate for the Asian population was 7.5% with a high of 64.1%. This suggests that ethnic and racial enclaves are found within the region.

Housing age and job density ratios were used to calculate “Rough Urban Land Use”. Variation in housing stock age is shown to be pronounced with a range between a low of 18.1%, a high of 92.3% and a standard deviation of 17.8%. The job density ratio measure is far slighter. It has a total range of 0.11 and a standard deviation of 0.035. This suggests that the “Rough Urban Land Use” classifications between urban and suburban are far less distinct than between older and newer communities.

Another measure, median annual household income was used, along with a specific threshold defined in state law to calculate the variable of “Economically Disadvantaged Communities.” The descriptive statistics show a considerable range in average income with the highest rate being \$151,786 and the lowest being \$38,960, representing a range of \$112,880. This income disparity is suggestive of differing tax revenues among San Gabriel Valley cities, which is likely to have an impact on the amount of funding spent on park and recreation services and administration of local municipal governments (e.g. park planning, grant proposal writing, and management of public works projects).

The institutional spending variables (i.e. “Park and Recreation Spending” and “City Management Spending”) also show a substantial range in variation. “Park and Recreation Spending” averages were as much as \$500.48 a year. The minimum was \$36.66 per year. Another significant difference is seen in “City Management Spending.” Among the sampled of cities, the highest spending averages at \$361.63 a year. This is compared to a low of \$26.49 per year. Together, these two variables show that operating budgets within the sample are more extreme than expected.

The descriptive statistics in Table 6, and in Figure 10, identify anomalies and tendencies among the sampled cities. These variables provide insights into key differences, including variation in competitive grant funding over a 15-year time period. Yet, many of these differences were expected. To add to this contextual information, the following set of figures provides a series of maps that each display the geographical distribution of a study variable.

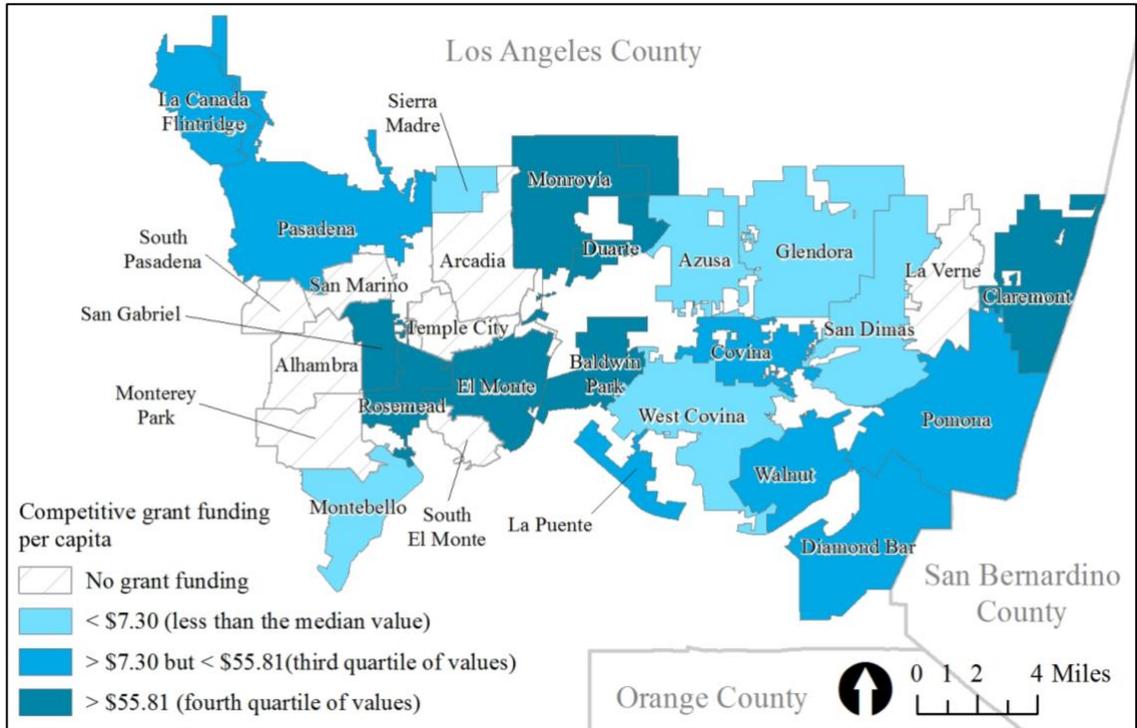


Figure 11. Map of competitive grant funding per capita

Figure 11 geographically illustrates the amount of competitive grant funding cities have obtained from July 1, 2000, to June 30, 2015, through the funding programs examined by this study. This map can be compared with Figures 12-16, each showing the spatial distribution of an independent variable. These allow for a more detailed comparison among the sampling of cities.

Figure 12 shows “Park Need” as identified through the 2016 Los Angeles Countywide Comprehensive Parks and Recreation Needs Assessment. In comparing this information to Figure 11, the cities with very high need, such as Baldwin Park and El Monte, are shown as being among the most successful in obtaining competitive grant funding. Under the notion of compensatory equity, this phenomenon is expected. Yet, cities with very low or low “Park Need,” such as Claremont, Duarte, and Monrovia, are among the most successful in obtaining grant funding. More so, many cities with high to

moderate “Park Need” have received little or no assistance. For instance, Alhambra, La Puente, and Temple City are identified as having a high need but have obtained no grant funding. These anomalies are consistent with the service provisioning disconnect theory described within the research hypothesis.

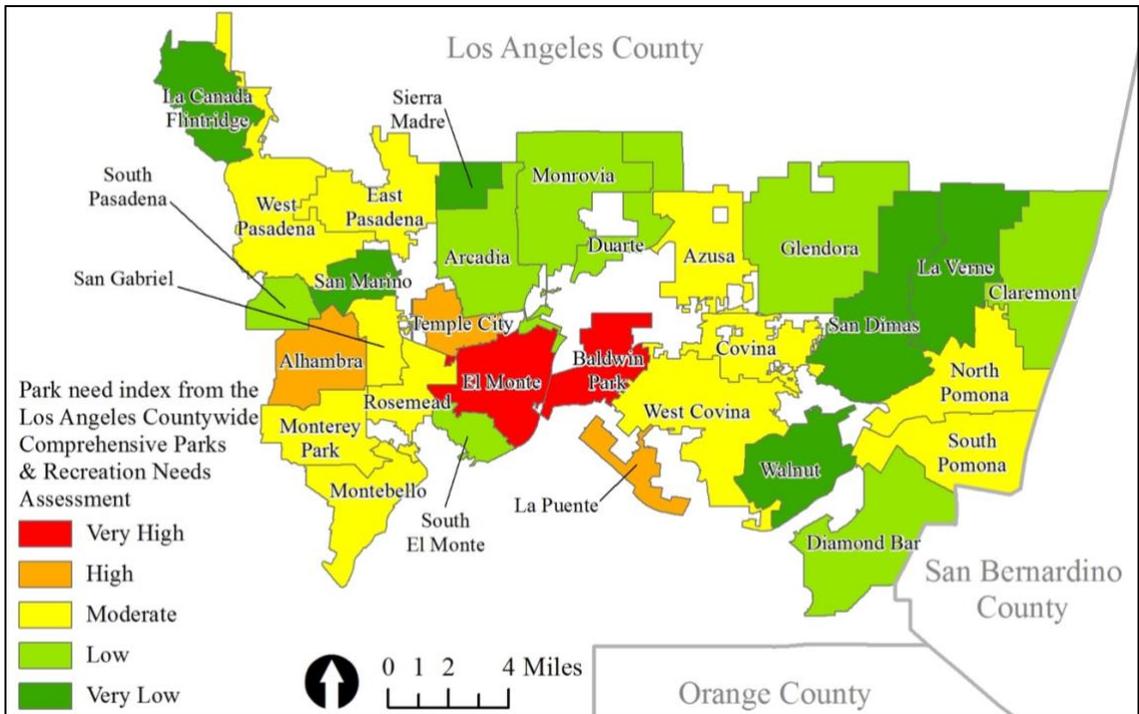


Figure 12. Map of Los Angeles County park need index

Source: Los Angeles County; Department of Parks and Recreation; *Los Angeles Countywide Comprehensive Parks and Recreation Needs Assessment*; 2016.

Figure 13 illustrates the distribution of “Rough Land Use.” As expected, the map shows a recognizable pattern associated with housing age. The classifications that are related to older housing are concentrated in the western part of the San Gabriel Valley, closer to downtown Los Angeles. As shown in Figure 11, many older communities are less successful in obtaining competitive grant funding. This could potentially have an association with the amount of land available for park development.

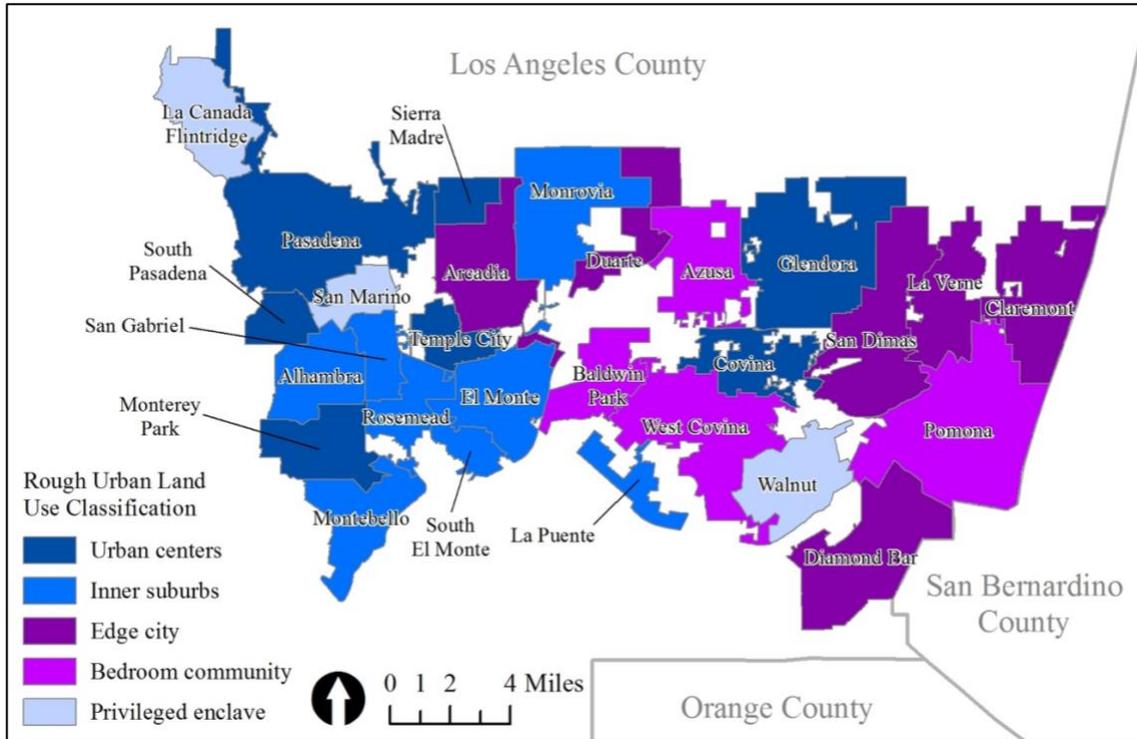


Figure 13. Map of rough urban land use index

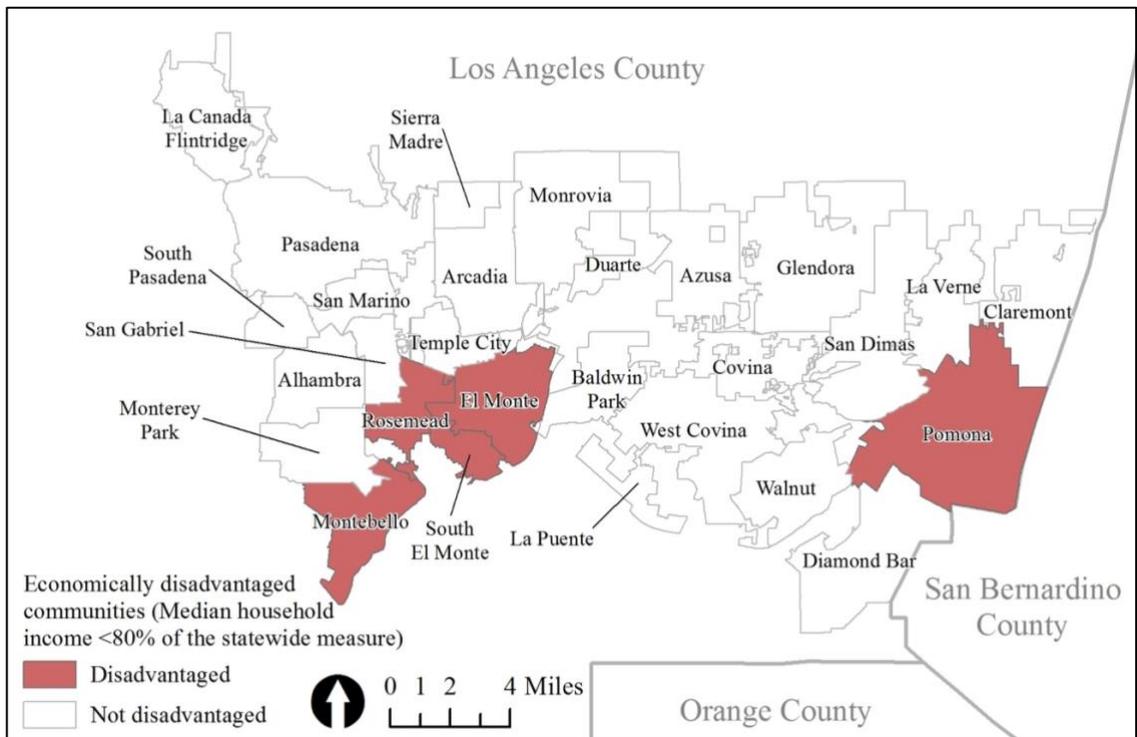


Figure 14. Map of economically disadvantaged communities

Figure 14 identifies five cities identified as “Economically Disadvantaged Communities.” These cities include Baldwin Park and El Monte. In Figure 11, the two cities are also shown as being among the most successful in obtaining competitive grant funding for park and recreation improvements.

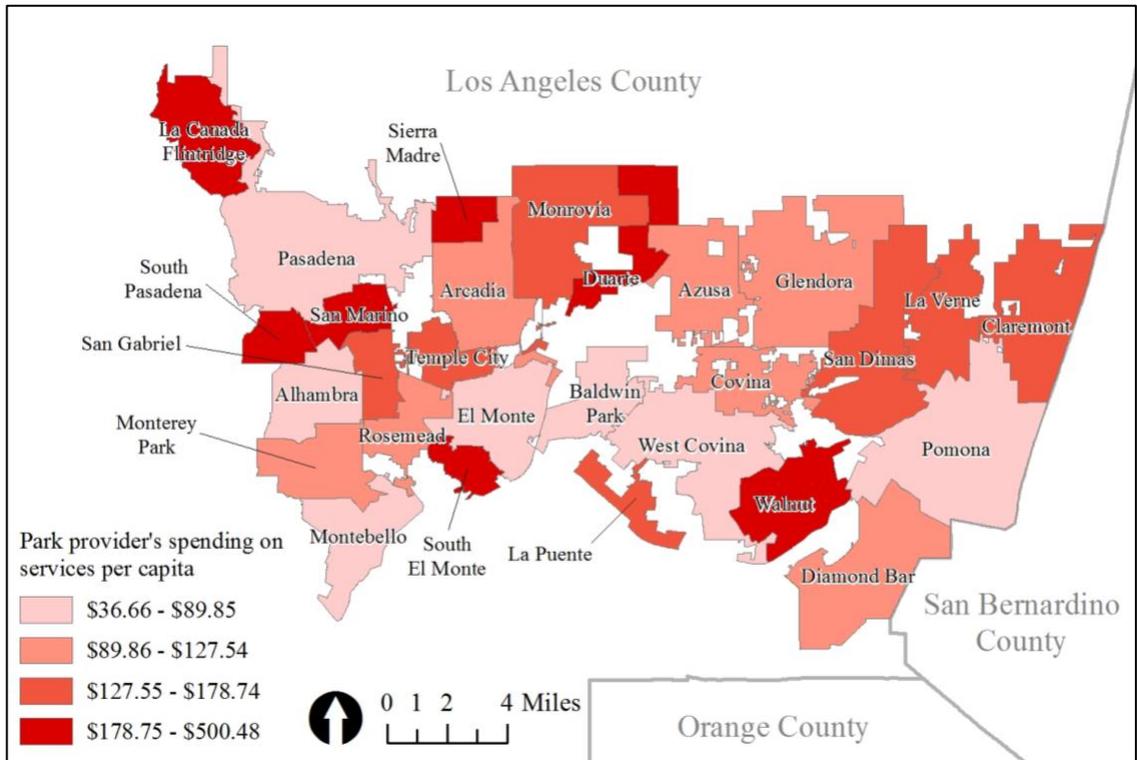


Figure 15. Map of park providers’ spending on services per capita

Figure 15 illustrates average “Park and Recreation Spending” from state fiscal years 2003 to 2014, as reported by the California State Controller's Office. The map depicts the annual spending values through a quartile-based classification scale. The differences in spending are considerable. A visual comparison with Figure 11 reveals no clear relationship. In comparison to Figure 12, a pattern can be identified between low “Park and Recreation Spending” and the higher levels of “Park Need,” and between high spending and lower levels of need.

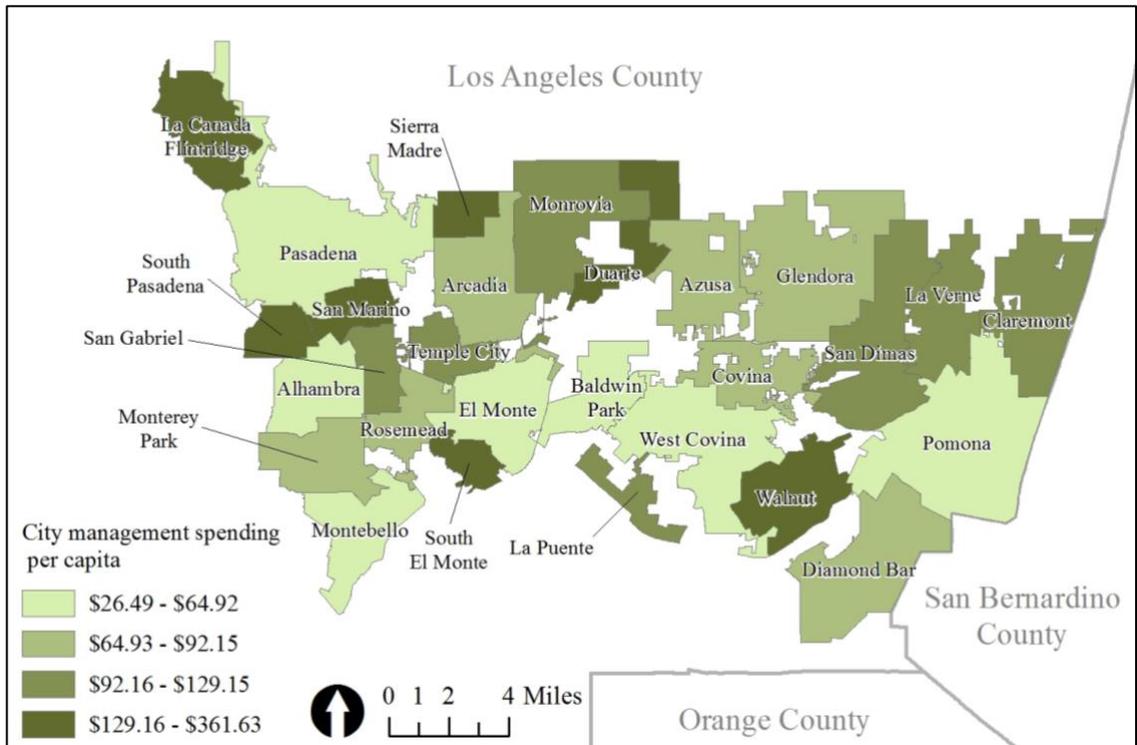


Figure 16. Map of city management spending per capita

Figure 16 shows the geographical distribution for average “City Management Spending” from state fiscal years 2003 to 2014, as reported by the California State Controller's Office. As with Figure 15, the map depicts the average spending values by quartile. Unexpectedly, this map display also mirrors Figure 15.

The second portion of this section demonstrates the relationship between the dependent and independent variables. The relationships indicate whether these independent variables have a positive, negative, or no relationship with “Competitive Grant Funding.” The strength of these relationships can lend support to the initial theoretical framework, the research hypothesis, or alternative theories.

The output models in Table 7 reveals the relationships that eight variables have with “Competitive Grant Funding.” Table 7 also reveals whether statistical significance

exists among these relationships. Model 1, which measures population age and ethnic background, shows that none of the explanatory variables have a relationship with “Competitive Grant Funding.” Model 2 enters “Park Need” and also shows no statistically significant relationship with the dependent variable or the previously measured independent variables. Similarly, Model 3 adds in “Park and Recreation Spending” and reports no statistically significant relationship. Finally, Model 4, which enters “Economically Disadvantaged Communities” and “Rough Urban Land Use,” reveals five variables (percentage of population over 64, percentage of population that is Latino, “Park Need,” and “Rough Urban Land Use”) that have a relationship with “Competitive Grant Funding” at a 90 percent confidence level.

The variation of each model is explained by looking at the adjusted R^2 . In Model 1-3, the adjusted R^2 is less than 1 percent, which is very low. In Model 2, the addition of “Park Need” to the prediction did not lead to a statistically significant increase in the adjusted R^2 . Similarly, adding “Park and Recreation Spending” in Model 3 did not lead to a statistically significant increase in the adjusted R^2 . However, the full model of demographic variables, “Park Need,” “Park and Recreation Spending,” and “Rough Urban Land Use” to predict “Competitive Grant Funding” (Model 4) was statistically significant at a 90 percent confidence level, $R^2 = .75$, $F(14, 12) = 2,393$, $p < 0.10$, adjusted $R^2 = 0.44$. In other words, Model 4 is by far the strongest model, showing that 44 percent of the data variability is explained by the full set of variables.

The direction of relationships observed in Model 4 is suggestive of whether these variables have a positive or negative relationship with “Competitive Grant Funding.” As shown in Model 4, “Competitive Grant Funding” had a negative association with two

demographic variables, the percentage of the population over 64 years old and the percentage of the population that are Latino. “Park Need,” as reported by the Los Angeles Countywide Comprehensive Parks and Recreation Needs Assessment, reveals that very high need has a positive relationship with “Competitive Grant Funding.” In contrast, very low, low, and high need have a negative relationship. The model also shows a negative relationship between “Competitive Grant Funding” and the urban center and bedroom community classifications for “Rough Urban Land Use.”

Table 7. Hierarchical multivariate regression outputs

Variable	R ²	Adj. R ²	R ² Change	Sig. F-Change	Unstand. Coefficients	Sig.	VIF
Model 1-Demographics							
(Constant)	—	—	—	—	1.25	0.71	—
Prec. Pop. Under 18	—	—	—	—	-0.49	0.96	2.93
Prec. Pop. Over 64	—	—	—	—	-5.67	0.52	3.23
Prec. Pop. Latino	—	—	—	—	0.32	0.77	2.78
Prec. Pop. Asian	—	—	—	—	0.55	0.65	2.44
Prec. Pop. Black	—	—	—	—	11.48	0.16	1.80
	0.19	0.01	0.19	0.42	—	—	—
Model 2-Demographics and Park Need							
(Constant)	—	—	—	—	1.20	0.73	—
Prec. Pop. Under 18	—	—	—	—	1.01	0.91	3.13
Prec. Pop. Over 64	—	—	—	—	-3.15	0.74	3.47
Prec. Pop. Latino	—	—	—	—	-0.57	0.70	4.69
Prec. Pop. Asian	—	—	—	—	0.14	0.92	3.10
Prec. Pop. Black	—	—	—	—	11.54	0.19	2.00
Very Low Park Need	—	—	—	—	-0.52	0.42	2.76
Low Park Need	—	—	—	—	-0.26	0.58	1.87
Moderate Park Need	—	—	—	—			
High Park Need	—	—	—	—	-0.42	0.47	1.29
Very High Park Need	—	—	—	—	0.96	0.19	1.36
	0.33	-0.01	0.14	0.48	—	—	—

Variable	R ²	Adj. R ²	R ² Change	Sig. F- Change	Unstand. Coefficients	Sig.	VIF
Model 3-Demographics, Park Need, and Service Providers Spending							
(Constant)	—	—	—	—	1.26	0.72	—
Prec. Pop. Under 18	—	—	—	—	-0.69	0.94	3.20
Prec. Pop. Over 64	—	—	—	—	-4.86	0.61	3.56
Prec. Pop. Latino	—	—	—	—	-0.44	0.76	4.72
Prec. Pop. Asian	—	—	—	—	0.48	0.73	3.25
Prec. Pop. Black	—	—	—	—	15.11	0.11	2.27
Very Low Park Need	—	—	—	—	-0.93	0.22	3.61
Low Park Need	—	—	—	—	-0.44	0.39	2.06
Moderate Park Need	—	—	—	—			
High Park Need	—	—	—	—	-0.44	0.45	1.29
Very High Park Need	—	—	—	—	1.13	0.13	1.42
Park Serv. Spending	—	—	—	—	0.01	0.26	2.72
City Mgmt. Spending	—	—	—	—			
	0.38	0.01	0.05	0.26	—	—	—
Model 4- Demographics, Park Need, Service Providers Spending, and Land Use							
(Constant)	—	—	—	—	5.25	0.14	—
Prec. Pop. Under 18	—	—	—	—	-1.05	0.91	5.85
Prec. Pop. Over 64	—	—	—	—	-15.92	*0.09	5.78
Prec. Pop. Latino	—	—	—	—	-2.48	*0.08	7.06
Prec. Pop. Asian	—	—	—	—	-1.55	0.28	5.74
Prec. Pop. Black	—	—	—	—	11.78	0.15	2.89
Very Low Park Need	—	—	—	—	-3.12	***0.00	9.29
Low Park Need	—	—	—	—	-1.97	***0.00	4.93
Moderate Park Need	—	—	—	—			
High Park Need	—	—	—	—	-1.00	*0.08	1.89
Very High Park Need	—	—	—	—	1.06	*0.08	1.45
Park Serv. Spending	—	—	—	—	0.01	**0.02	3.41
City Mgmt. Spending	—	—	—	—			
Economically Dis.	—	—	—	—	-0.32	0.51	2.36
Urban Center ULU	—	—	—	—	-1.03	*0.05	3.03
Inner Suburb ULU	—	—	—	—	0.73	0.29	5.31
Edge City ULU	—	—	—	—			
Bedroom Com. ULU	—	—	—	—	-1.45	**0.02	2.53
Privileged Enc. ULU	—	—	—	—	0.80	0.43	6.71
	0.75	0.44	0.37	**0.03	—	—	—

Note 1: *, **, *** Correlations are significant at the 0.10, 0.05, and 0.01 levels respectively.

Note 2: Prec. = percent; Pop. = population; Park Ser. Spending = Park and Recreation Spending; City Mgmt. Spending = City Management Spending; Economically Dis. = Economically Disadvantaged Communities; ULU = Rough Urban Land Use; Com. = Community; Enc. = Enclave; Adj. = Adjusted; Unstand. Coefficients = Unstandardized Coefficients. Sig. = significance; — = not applicable.

Note 3: Dependent variable was logarithmically transformed (\log_{10}) to convert a strongly positive skew to linear normality.

Note 4: City Mgmt. Spending was removed due to multicollinearity with Park Serv. Spending.

Note 5: Moderate Park Need was omitted as a reference category for the variable. Edge City ULU was omitted as a reference category for the Rough Urban Land Use Classification.

Discussion of Findings from Quantitative Component

The use of sequential multiple regression was specifically selected to explore the contributions of suspected independent variables in predicting “Competitive Grant Funding.” Many of the suspected predictors were theorized to be indirectly associated with competitive grant funding. Results produced outcomes that were both unexpected and expected, with different levels of statistical significance for each variable and model.

Model 1, which predicted associations with demographic variables, and Model 2, which entered “Park Need” classifications, are very weak and demonstrate a lack of statistical significance. Under the “Compensatory Park Development Funding Theory,” these indicators would be expected to partly predict “Competitive Grant Funding”. As such, the lack of a relationship within both models suggests a more complex and non-linear relationship.

Model 3 enters into one of two fiscal variables, “Park and Recreation Spending.” With this addition, the model still failed to identify a statistically significant relationship among these variables. Notably, the other fiscal variable, “City Management Spending,” was dropped from the models due to multicollinearity with “Park and Recreation Spending.”

Model 4 introduces a final set explanatory variables, “Economically Disadvantaged Communities” and the classifications for “Rough Urban Land Use.” These explanatory variables contributed to an R^2 change of 37 percent. With two of the index classifications for “Rough Urban Land Use” shown to have a statistically significant relationship with the dependent variable, this R^2 change suggests that land use greatly contributed to the perdition. This could be due to the prevalence of land use problems involved in developing new recreational facilities. For instance, land availability may be greatly limited within inner city landscapes. This may serve as a competitive disadvantage as many of the state grant programs included in the study prioritize development or establishment of new parks that include an environmental enhancement or conservation component. As an additional example, park service providers in more densely built out communities may be challenged to secure locations for new park and recreation facilities. These challenges could include competition with developers to secure land and the financial burden of higher real estate prices.

Model 4 also entered in “Economically Disadvantaged Communities,” which showed the unexpected result of having no statistically significant relationship with the dependent variable. Due to the emphasis that many competitive state grant programs put on prospective grantees to demonstrative their need in reference to this attribute, the inability of the model to observe a statistical relationship is surprising. It may be the result of a data sampling issue. In other words, the sample may be too small. Notably, only four cities met the definition of being disadvantaged, including Baldwin Park and El Monte. As seen in Figures 11 and 12, both cities are among the most successful in

receiving grant funding and are the only cities in the sample identified as having very high “Park Need.”

The results from Model 4 lend some support for the “Compensatory Park Development Funding Theory” that is described within the theoretical framework for this study. “Competitive Grant Funding” was found to have a negative association with very low and low “Park Need.” Moreover, a weak positive association was established with very high need. This positive association is consistent with a compensatory equity approach.

On the other hand, other results provide support to the research hypothesis, that there is a disconnect between granting organizations seeking that seek to provide compensatory equity and park providers that serve communities with a funding need for park and recreation facilities. “Competitive Grant Funding” had a weak positive statistically significant relationship to “Park and Recreation Spending.” This could be the result of variation in the administrative recourses available to parks departments and other service providers to plan projects, prepare grant proposals, and manage grant agreements. Additionally, “Competitive Grant Funding” had a weak negative relationship with high “Park Need.” This result appears contradictory to the notion of compensatory equity. Finally, the dependent variable had weak negative relationships with the percentage of the population over 64, as well as the percentage of Latinos residing in a community. This is suggestive of potential age discrimination and environmental racism, which could be a direct or indirect product of competition-dominated grant contracting processes.

While there is likely no one single explanation for some of the results, because city governments act differently as they respond to varying funding levels, land use conditions, and community preferences, some of the results from Model 4 are consistent with the underlying operational theory of the research hypothesis. In other words, these results do not eliminate the plausibility that state granting agencies are prioritizing accountability in the administration of grant funds in a manner that provides a disadvantage to park service providers in areas of high to moderately high needs. This can be contrasted with the negative relationship observed between “Competitive Grant Funding” and high, low, and very low “Park Need.”

CHAPTER 5. FINDINGS – QUALITATIVE DATA

This chapter presents and discusses responses to the areas of questioning included in the semi-structured interviews. These responses provided useful information in regards to competitive grant pursuits and administrative behaviors of cities as related to park and recreation development. Patterns and shared attributes are then discussed, include possible connections to theory presented in the research frameworks.

A total of five telephone interviews were conducted with park directors. Interviews averaged 23.5 minutes in length with a range of 6.6 minutes. Data were obtained from interviews via transcription. Interviews were manually transcribed by the primary investigator. The transcription process excluded all personally identifiable information and trivial expressions such as uh, uhm, etc. Data analysis was initiated with an open reading of the interview transcripts. Key codes, associated words, and phrasing were identified in order to isolate reoccurring concepts.

Transcripts were then assigned to one of two groups. Two directors working for the more successful cities were assigned the designation of Group A and the other three were given the designation of Group B. A search was conducted with the aid of a KWIC index in order to determine relevant contextual information surrounding key codes, which included segments expressing activities of city administrative staff, capital park improvement objectives, perceptions about competitive grant programs (including both state-administered and other grant programs), strategies and tactics used to compete for grant funding, and difficulties faced in developing new facilities. This inductive investigation of the transcripts assisted in the development of topical categories used to organize the presentation of results.

Table 9 presents coded topics which were overarching and could not be compared or contrasted among the two groups of participants. These observations offer insights into the administration of municipal parks departments and their practices. For instance, two principal types of project difficulties were identified: funding for capital projects and the availability of land. All five directors stated that funding was a substantial challenge. Three of the directors further indicated that they were challenged to find space for new parks or facilities, describing efforts to secure space as equally or more difficult than obtaining project funding.

Project objectives were another topical area identified as having a substantial commonality in responses. For instance, all five directors identified that the primary objective of current park and recreation development projects was to rehabilitate, replace, or enhance existing facilities. Development of new parks and facilities was described as less common, and more contingent on outside funding. In describing how most projects were entered into the city's capital improvement plans, three directors described a similar procedure. It involved prioritizing an informally maintained list of known operational issues and deferred maintenance. A separate assemblage of three directors identified that their project prioritization process involved review and input from a city commission (e.g. parks and recreation commission or community services commission).

Several commonalities were identified among the actions associated with preparing grant proposals and applying for funding assistance. All of the directors identified demographics as an important consideration in judging potential success for any need-based competitive funding program. Among the coded responses, all five directors specifically mentioned that having areas of "low income" or "lower income"

was specifically advantageous to successful grant proposals. In deciding whether to prepare a grant proposal for a specific opportunity, four of the directors identified that grant funding had successfully been obtained for facilities sited within areas of the community that had lower income. An additional commonality was the involvement of the city manager in deciding when it was advantageous to apply for funding through a competitive grant program. Or rather, city managers are involved in evaluating if the investment of administrative effort and time for the preparation of a grant proposal would be advantageous and worth the risk of potentially not receiving a funding award. Lastly, four directors identified that their staff was not typically involved in grant writing. Instead, they wrote grants themselves or used a professional consultant to prepare proposals for large and more complex projects.

A final topic identified as having commonalties spanning across the separate interview groups is that of compatibility between the expressed objectives of various grant programs and the aims of local capital improvement projects related to parks. Within the topic, there was a split in responses. Four directors acknowledged that program objectives varied and that some programs are less relevant to their needs than others. A subset of two directors further remarked that programs are often viewed as incompatible with their proposed project. They expressed frustration with many state granting programs that had more specialized objectives and were less relevant to the priorities for that city. This can be compared to the more optimistic statements from two other directors, suggesting that projects could be creatively modified to better align with the objectives of a grant project.

Table 8. Common observation codes, representative quotes, and frequency

Observation Code	Representative Quote	Director	Percent
Project difficulties: funding is a principal challenge	Well, the obvious one is always funding. You know, most cities the budgets are really tight when it comes to redevelopment funds that were taken away from us recently.	Director 1 in Group A	100%
Project difficulties: availability of land for new facilities is a principal challenge	In terms of creating new facilities the city is probably close to what you would consider landlocked. Meaning that there is no land left to develop. The very few open spaces that are available are already planned for development, for housing and/or protected land. So that would be the first obvious challenge, there is nothing and nowhere to go.	Director 2 in Group B	60%
Project objectives: most capital improvement projects are rehabilitation, replacement, or enhancements to existing facilities	The rest of them that are coming up are going to mainly be improvements or rehab of existing infrastructure such as parking lots, playgrounds. And I don't know if you would consider that in the CIP but for our purposes, in our department, that would be our extent of it. We have facilities, sports fields, parking lots is a big one, pathways in the parks, lighting and playgrounds.	Director 2 in Group B	100%
Project objectives: park staff maintains informal project lists	Well, internally I keep a deferred projects list on a timeline that extends up to 20 years. So, I'll put in there, for example, if there's any HVAC air conditioning units that are, you know, over 10 years old. And then I'll put an estimation that in, just as an example, in 5 to 10 years we need to replace those. So, we'll put in an estimate for replacement and installation cost. And so, we keep this long list.	Director 1 in Group A	60%
Project objectives: park commission is a driver for project prioritization	And we review that annually with our parks and recreation commission, and say we know these are the things maintenance wise that needs to be repaired and these are the projects we've had on the scope of work for a long time just to enhance the park or facility. Then we ask the commission to help us with prioritizing.	Director 3 in Group B	60%

Observation Code	Representative Quote	Director	Percent
Applying for grants: demographics as an important consideration for success in obtaining grants	And we go through all of that and we've been very fortunate because of historically the demographics in the City, we were able to demonstrate that we have a lower income level and that's how we have a lot of the facilities that we have here in town. Like a senior center, like a teen center. But the demographics have changed and we're a little bit more affluent now, and it becomes a little bit more difficult for us to use that, to hang our hats on that.	Director 1 in Group A	100%
Applying for grants: decision to apply involves city manager	I think the decision to apply for a grant is made collectively. I think, um, I might do the initial vetting and propose it. And it would go to the City Manager and that's probably where the decision would be made. If grant funds were awarded it would be taken to the Council for acceptance.	Director 1 in Group B	100%
Applying for grants: on-call grant writing consultant used for grant proposals with larger scopes	In the past, the City had on retainer a grant writer. We also have a few consultants the City retains for other purposes that can assist us with grant writing. So, the way it works, at least for our department, I can tell you is we would either write the grant ourselves depending on the scope of it. The larger scope ones we use the consultants because our department doesn't have a specific grant writer.	Director 2 in Group B	80%
Program compatibility: projects are tailored to grant opportunities	I think we're going to use what they have available and I think every city, if you talk to other cities and it's no, then they must work for a perfect city that doesn't need any improvements. Because the same money can be used for a lot of things, you know. I guess it all depends about how you think about it and how you apply it. We'll find a way to use it.	Director 2 in Group B	40%
Program compatibility: many state program objectives don't fit local project objectives	A lot of the programs recently have been geared toward natural habitats, trails, and stuff and for a lot of our projects it's like we just need playground equipment. I mean, you know. You can't always align with all of those natural resources. And in our community, we gotten some funds, we've done some riverside trails. But our community is so developed we just need some basic park amenities...	Director 2 in Group A	40%

In addition to the overarching commonalities and opinions shared by the participating directors, similar behaviors were observed within each group. These inter-group consistencies allow for comparisons between Group A and Group B cities. Such comparisons help to lend support to the research hypothesis, alternative hypothesis governed by the “Compensatory Park Funding Equity Theory,” or other theory by supporting or contradicting suspected causal relationships related to “Competitive Grant Funding.”

When evaluating grant funding opportunities, three directors implied that the size of a potential grant award was an important factor. If the administrative burden associated with a grant was too great, a perception existed that the net subsidy provided by a grant could be diminished. As reported by one director:

We have to evaluate the cost, true cost of implementing grant programs because there are costs that are not associated with the grant budget that need to be taken a look at. For instance, if it takes you, you know, \$25,000 worth of time to track and monitor all the things you need for the grant proposal and you're only getting \$30,000, that's a problem you know. And so that has to be a good balance.

Director 1, Group B

However, several directors indicated that grants with larger funding amount typically cover a portion of a project budget and require grantees to commit to a proportional match of local funding or resources. The ability for cities to afford these matching commitments appeared to be varied. In comparing comments, Group A directors indicated their cities were fortunate to be in a position to seek larger grants because they had local funding available for matching purposes. One identified the availability of general fund reserves while the other notes that developer fees were obtainable for projects at the discretion of city council. As reported by one director, grant programs were viewed as opportunities to leverage existing city resources:

The selling point to the City Council when we ask for the additional money was that you only have to pay for 25% of this project. If you had to pony up the full amount, you'd pay nearly half a million dollars.

Director 1, Group A

In contrast to Group A, one of the directors in Group B identified that their city did not have a discretionary budget available for park and recreation facilities. They described match requirements as discouraging or inhibiting factors:

Unfortunately, I guess I could say that the ones we're into now are contingent on 100% grant funding. We don't go after very many that need matching funds unless we have a pool of money like... So yeah, mostly we look to grants for complete funding.

Director 2, Group B

Another commonality observed among Group A directors was proactive planning to identify current park and recreation priorities. Both directors further remarked that they anticipated proposal submission to competitive grant programs that were being developed for the new countywide park funding mechanism; the Safe, Clean Neighborhood Parks and Beaches Protection Measure of 2016, which is also referred to as Measure A. One Group A director described efforts to complete and adopt a parks system master plan while the other Group A director reported:

Like right now we're, we're preparing to apply for funding from the recent measure that was passed by voters a year ago, Measure A. And to do that we have to conduct a needs assessment for ourselves. We conducted a needs assessment about 2 years ago, through the county, where our top 10 priorities were established, but since then, you know, there are new priorities for what we think we need. So, we're going through a full effort right now, surveying residents based on that original top 10 priority and any new realities that have occurred since then.

Director 1, Group A

All five directors indicated that local demographics played an important role in how well their competitive grant proposals fared. In comparing these comments, the directors in Group B independently contributed a lack of success in obtaining funds to

income levels that were relatively low, but not low enough. They shared a sentiment that the need-based focus of many grants diminished their competitiveness. As stated by one director:

I think we do compete well as far as the merits of the projects. Our performance, I think where we suffer a little bit, is in our demographics. We're sort of on a bubble there. We're not really high and we're not really low. ...Competitive is always difficult because the criteria is not the same for everyone. I mean the criteria are the same but it doesn't level the playing field because if you skew it for disadvantaged not everyone meets that.

Director 3, Group B

Other Group B directors contributed their lack of success to a combination of moderate income demographics and funding shortfalls to fulfill local matching requirements:

I think sometimes people think we're not competitive because some of our neighbors have, you know, "better demographics" meaning that those low-income areas have a better chance and they may or may not have matching funds that make their applications look more appealing.

Director 2, Group B

As a final comparison, there was a distinction in management approaches to capital improvement projects. Directors in Group B stated that their department primarily used internal staff to manage projects, with assistance from other departments and specialized consultants brought in only when needed. As reported by one director:

I manage projects myself, or the landscape maintenance manager, or the facilities manager. And it's divided up by whatever makes sense. When we got the playground, the park maintenance manager did it. Now we got a building being built, the facilities manager is taking the lead. But all three of us are typically involved in all the projects, it's just who takes the lead and the rest of us tag out when they need help, or aren't going to be here or something like that. We all probably fall short because we're not project managers or construction people, but we're able to manage a project because we pull expertise; especially when we need experts to deal with the details of problems.

Director 3, Group B

This method stands in contrast to the approaches described by the two directors in Group A, which similarly described project management as provided by specialized staff housed in other city departments. Additionally, as a contrast to Group B, one director described that it was their standard practice to bring in a construction management consultant for larger projects:

I think depending on the size of the project, I'd say for another smaller scale project that we did where we installed some picnic shelters at one of our existing parks and we did not hire a project, like a construction manager, on that but for our larger scale project we would. But Public Works has kind of played the project manager role, and we hire a construction manager that does the accounting roll and works directly with the contractors, you know, submitting change orders on those things, that kind of stuff.

Director 2, Group A

Discussion of Findings from Qualitative Component

This section discusses the results of a pattern analysis which involved analyzing the latent content within the collected data (Gaber and Gaber 111). Interpretations of those patterns are also offered in order to deduce more refined theory. Among the information provided through the interview process the most significant information was seen as the inconsistent abilities of prospective grantors to provide matching funds, varying practices and degrees of active park planning, differing ability to credibly demonstrate the capacity to carry out larger projects scopes, and perceptions and stigmas surrounding competitive grant programs and program compatibility.

One of the patterns identified through the latent content analysis is linked to a common requirement of competitive state grant programs. Applicants are required to commit themselves to a matching contribution. This matching commitment is typically in the form of project funding. Among the 14 programs reviewed for the first sequence of research, 10 required matching funds or considered the proportional size of the

applicant's contribution as a factor when scoring proposals. The four remaining programs did not require matching and prioritized projects in critically underserved areas.

This strategy of requiring or prioritizing proposals with a match may represent a policy failure as it represents a barrier to cities with tighter budgets. One director from Group B partly contributed their lack of success to an inability to accommodate local matching requirements. The comment is consistent with literature that has shown that cities with additional resources are willing to allocate extra funding disproportionately to park and recreation uses (Joassart-Mercelli 1187-1188). Within the context of this statement, the director further described that they tended to seek private foundation grants that supported smaller projects scopes, such as the replacement of play equipment, as these programs did not typically require a matching commitment.

In comparison, both members of Group A identified success in leveraging their city council to discretionarily allocate local funding to meet the matching requirements of competitive grant opportunities. These actions allowed them to seek more ambitious project scopes than would be possible without the additional grant funding. They further show how competitive programs with equity-focused policies favoring grant awards to under-served low-income communities can still create barriers to resource access if they have certain accountability-focused polices (Collins and Gerber 1131).

Other identified patterns help to pinpoint the theoretical relationship between "Competitive Grant Funding" and park service providers' administrative capacities. For instance, comments made by the two directors in Group A suggest that the relationship partly involves actively planning for park facilities. This was seen through the latent content analysis in the description of activities such as park system master planning and

community engagement to assess park and recreation related needs and preferences. One director in Group A stated that their city was completing a parks and open space master plan while the other mentioned that they were actively engaging with stakeholders to identify community needs and preferences. In contrast, none of the Group B participants described any similar planning activities as being involved in their process for identifying park development projects.

Collins and Gerber identified that demonstrated administrative capacity by grantees can offer grantors a sense of improved accountability in the implementation of a grant-funded project (1131-1132). Having the resources for staff planners or consultants to undertake park planning efforts is likely consistent with that type of administrative activity. Specifically, this may allow prospective grantees to credibly and successfully put forth ambitious projects.

An additional pattern related to administrative capacity was seen through divergent approaches to project management. This is potentially significant as several of the state grant programs reviewed for this thesis evaluated project management as a scoring criterion. In some programs the prospective grantees stated approaches to project management were evaluated while other evaluation approaches considered the performance of local agencies in previously completed projects that received financial assistance from the administering state agency.

In support of this theory, a comparison of statements made between Group A and Group B directors suggest that cities that are more successful in obtaining grant funding are typically also more reliant on project management services from specialists held in another city department. They are also potentially more able to afford the services of a

consulting construction manager that can provide greater efficiencies through the administration of a public works contract. These standard practices are likely to more often produce preferable outcomes than the strategies described by Group B directors where projects are more commonly managed with internal staff that may or may not have as much relevant professional skills and knowledge.

Comparison of interview statements also identified patterns related to perceptions about their city's competitiveness under need-based grant programs, including observations about program compatibility. Several directors described that "good demographics" were very advantageous to receiving funding through need-focused competitive grant programs. For example, it was commonly reported that having low-income residents served by a proposed park and recreation facility improvement was among the most important drivers for a successful project proposal. Regardless of the accuracy of these statements, future compensatory equity-focused grant programs may be affected by an existing stigma, particularly among service providers for moderately needy and moderately low-income communities.

As a final comparison, the pattern analysis identified varying perceptions about the compatibility of grant program objectives with local priorities. Need-driven grant programs reviewed for this thesis often had specialized focuses. Based on statements from two directors, these focuses may diminish compensatory equity due to the relevance of these focuses on differing land use conditions. For instance, programs focusing on recreational trail development would likely be more suitable to cities that have conserved open or available linear right-of-ways, such as along flood control channels.

CHAPTER 6. CONCLUSION

The award of park development funding from competitive state grant programs varies among eligible park service providers due to complex internal and external factors, which in turn affects compensatory equity outcomes and the behaviors and perceptions of local park service providers. As previously stated, some cities have received no assistance, and some have received relatively little, while others have received a substantially larger benefit. Yet beyond identifying these groups and discussing associations with explanatory variables, this thesis focused on developing solution-based theories to support future refinement and changes to the policy approaches. While regression modeling showed that many explanatory variables did not associate with the dependent variable, it did illustrate that ‘very high park need’ had a weak positive relationship with grant funding allocations. It also showed that communities with ‘high park need’ had a weak negative relationship. This can be attributed to differences in land use and variation in the amount of local resources allocated to parks. Additionally, several trends emerged from cross-sectional interviews with city park directors that help provide context for the policy recommendations presented in this chapter.

Thesis Statement

The thesis statement introduced in the first chapter stated that outcomes from competitive grant programs were an important topic to analyze as the methods used by these programs to distribute funding may be ineffective at delivering compensatory investments in areas of critical need. Study results do not directly validate this assertion. Instead, the study showed that grant subsidies tend to reach communities with the highest park needs. Yet the delivery of subsidies drops considerably for communities with fairly

high need, particularly in comparison to the amount of resources that have been provided to cities with “moderate park need.” Within the study population, internal factors such as land use patterns and local spending on park services were shown to be involved in this unexpected relationship. Additionally, several potential barriers to compensatory equity were identified through cross-sectional interviewing. These further explain this recourse distribution pattern.

The study also garners some support for the research hypothesis that subsidies for park and recreation development projects increase with park service providers’ administrative capacity. While “very high need” cities were shown to typically compete well for grant funding, it was observed that many “high need” cities have not competed for park grants or competed but have not been successful, or have competed and received less than cities with “moderate need.” This provides evidence for the previously described theory of a *compensatory equity service provisioning disconnect*. To a limited extent, this research suggests that state agencies may prioritize accountability over equity through the process of scoring competitive grant proposals.

Policy Recommendation

There are several recommendations stemming from the results that policy makers and grant administrators can take to improve their equity performance. The first recommendation is for grant administrators to work with local governments to cooperatively identify park needs and priorities. This means that administrators should consider supporting local park planning activities. More consistency in long-range park planning would help equalize the type and scale of project proposals. Furthermore, cities that have not historically participated in park planning would be better prepared to

compete for funding if they developed project proposals that directly related to meeting community needs and preferences. At the state level, this recommendation may be put into action through the granting of technical planning assistance and facilitation services, or through the offering of funding grants for park planning efforts.

A second recommendation is for grant administrators to remove matching requirements from programs that have a stated focus toward compensatory equity. This would help clarify the intent of these programs. These matching mandates represent a demand to cost share projects that muddles the focus of these grant programs. While this cost sharing allows grant resources to be distributed more broadly across a program area, such a tactic conflicts with the notion of compensatory equity as it creates a barrier for communities that are in need of subsidized resources. Eliminating matching contributions means that administrators may experience a reduction in accountability of program funds, but this trade-off improves compensatory equity outcomes.

The third recommendation is for state grant administrators to adopt alternatives to competition-dominated grant funding models. Aside from matching requirements, there appears to be a host of administrative burdens placed upon local services providers associated with the competitive nature of these programs. This includes processes involved in submitting grant proposals and documenting and reporting on the implementation of grant funded work. As identified by this research, consultant services are often brought in to aid in the preparation of grant proposals. This is just one example of the significant effort faced by the administrative staff of local service providers when seeking to advance a project through grant funding.

To accomplish this recommendation, it is further recommended that grant administrators adapt to the moderating hybrid grant contracting model described by Collins and Gerber (1130-1132). This means that a larger emphasis should be placed on the use of formulas and need-based criteria. They could also include pre-proposal submission processes in which applicants with the least competitive projects could be spared from expending administrative resources on the preparation of full proposals. By reducing the effort expended by local service providers to determine competitiveness, these steps may also address some of perception issues and stigmas that were identified through this research.

A combination of these strategies is certain to improve compensatory equity outcomes of the park-related grant programs available within the greater Los Angeles Region. Although this study did not find a definitive pattern of environmental racism in the award of grant funds, these recommendations are steps towards focusing resource subsidies more rigorously in line with the pursuit of environmental justice. Having a more accessible park systems throughout the region can help spread the full spectrum of benefits that are derived from public park space and recreational facilities. This is a significant component of creating a more livable and just metropolitan region.

Limitations and Future Studies

The scope of this thesis was a pragmatic exploration of the research topic. Therefore, the primary limitation associated with the study stems from the deductive stance in which conclusions were reached based on observed agreement among phenomenon, not with defensible methods that produced evidence of causal relationships. For instance, the sample frame for the qualitative portion of the research

was drawn from a convenience sample, an approach that significantly reduced confidence in the generalizability of the results over the greater Los Angeles Region.

Ideally, data for the quantitative portion of the study would have been collected from a broader sample or for the whole population within the region. While the data was longitudinal, the analysis was cross-sectional. It would have been preferable to analyze this data in a time series fashion so that more subtle trends within the data could be revealed. Another variable that was not controlled was the implication of the 2007-2008 global financial crisis. The financial crisis was an important event as it affected every aspect of the region and state economically, including the influx of local government revenues. Similarly, the State dissolved redevelopment agencies within the past decade. The implications of these agencies as tools to further park development objectives was not considered. Nevertheless, the results are noteworthy because the host of issues considered throughout the study provides an improved understanding of how competitive grant programs have performed. Results also provide insights into the actions of cities agencies as both grantees and park service providers.

This research identified several important associations that laid the foundation for future researchers. Communities identified as having high need for parks but fall short of being critically needy appear to be receiving negligible amounts of funding subsidies, particular when compared to moderately needy communities that have receive roughly similar if not higher rates funding. The cross-sectional interviews revealed a perception among some park directors that income demographics within their communities leave them unable to competitively for grant funding, particularly for project with more ambitus scopes. Therefore, further research should examine in detail the impacts that

local administrative capacity and grantsmanship have on grant award outcomes. Looking at this relationship would help further explain the implications of grant contracting on the delivery compensatory equity.

Furthermore, variation in land use and long-range park planning activities should be further studied. With the passage of Measure A and the likely approval of additional park-related state bonds, the trend of addressing disparities in park access and recreation facilities through indirect governance will likely continue and may grow in magnitude if more substantial funding streams are developed. As identified by this study, understanding the implications of these variables will help grant administrators improve their grant contracting mechanisms in a manner that more directly target environmental injustice. The first step may be pilot and closely monitor programs that comprehensively provide funding and technical assistance to support the full project development process, including park planning, project management and construction administration. However, care should be taken not to compromise local autonomy or variation in recreational preferences.

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