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Cityscape connections: National Park Service relevance and resilience in urban areas

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CITYSCAPE CONNECTIONS:
NATIONAL PARK SERVICE RELEVANCE AND RESILIENCE IN URBAN AREAS

A Dissertation Presented

by

Elizabeth E. Perry

to

The Faculty of the Graduate College

of

The University of Vermont

In Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy
Specializing in Natural Resources

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ABSTRACT

The National Park Service (NPS) strives to embody U.S. democratic ideals, conserving our collective stories and scenery for their intrinsic value and the enjoyment of current and future generations. However, although these places are conserved for all, they are not enjoyed by all. As with other conservation agencies, the NPS finds itself increasingly concerned with building relevance with diverse potential stewards. In cities, where 80% of the U.S. population and 40% of the NPS portfolio is based, there is a prime opportunity to build relevance with large, diverse, and proximate audiences. Recognizing this opportunity, the NPS initiated its Urban Agenda as a centerpiece of its 2016 centennial. The Urban Agenda seeks to connect people with proximate NPS parks and programs, primarily by using collaborations as pathways to relevance. In doing so, the agency may become a more resilient and value-added component of these larger landscapes. However, connections between relevance, resilience, and collaborations, especially at the organizational level, have rarely been addressed.

This dissertation: 1) identifies perspectives on NPS relevance in the urban context; 2) examines the diversity of brokers and roles in facilitating relevance across collaborative networks; and 3) assesses areas of intra-NPS relationship-building for enhanced relevance. A multi-site, multi-methods evaluation was conducted. Detroit, Tucson, and Boston, all cities with Urban Agenda investment but representing different proximities to physical NPS parks, were selected as cases. Qualitative in-depth interviews with NPS staff and community partners were paired with quantitative social network analysis. The first phase of research identifies areas of commonality and difference among perceptions about relevance. Qualitative inquiry found that, across cities, NPS staff tended to conceptualize relevance in agency-focused ways while community partners conceptualized it on broader scales, both in audiences and goals. These differences in scale may be complementary, though, with the NPS further enhancing its relevance by recognizing the larger context and embedding its perspectives within this context. The second phase of research quantitatively examines collaborative network composition and potential, especially regarding network and broker diversity. Study results suggest that building the breadth and depth of a network, as well as targeting specific areas of desired growth, are ways to effectively build network resilience and further connections for relevance. The third phase of research examines relationships among parks, programs, and offices of the NPS. Combining qualitative and quantitative methods, this inquiry found that relationships between parks are most numerous and supported by institutional structures. However, connections to and within programs are a desired area for further connection. All relationship-building structures and language must emphasize the utility of internal connections for external relevance. Balancing relationship types while being inclusive of non-park groups may be essential in promoting organizational resilience and relevance. This evaluation contributes to theoretical understanding about and indicators of relevance and resilience. Together, results from these three phases of study can help the NPS understand specific relevance considerations in urban areas, efficiently use their resources to enhance relevance, and continue to strive toward our democratic ideals.
DEDICATION

In Memoriam

Daniel A. Sarr, Ph.D.

1964 – 2015

Scientist and Storyteller
ACKNOWLEDGEMENTS

The path to this dissertation was sometimes harrowing but ultimately exhilarating.

Many have helped make the trek possible and worthwhile.

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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEDICATION</td>
<td>ii</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>iii</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>ix</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>x</td>
</tr>
<tr>
<td>CHAPTER 1: INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>CHAPTER 2: LITERATURE REVIEW</td>
<td>6</td>
</tr>
<tr>
<td>2.1 The Urban National Park Service Presence and Relevance</td>
<td>6</td>
</tr>
<tr>
<td>2.1.1. Urban Parks</td>
<td>6</td>
</tr>
<tr>
<td>2.1.2. National Park Service Programs</td>
<td>8</td>
</tr>
<tr>
<td>2.1.3. National Park Service Collaborations in Urban Areas</td>
<td>9</td>
</tr>
<tr>
<td>2.1.4. National Park Service Urban Agenda as a Plan for Enhanced Relevance</td>
<td>10</td>
</tr>
<tr>
<td>2.2. Resilience</td>
<td>13</td>
</tr>
<tr>
<td>2.2.1. Resilience Theory</td>
<td>13</td>
</tr>
<tr>
<td>2.2.2. Resilience in Practice in NPS and Urban Areas</td>
<td>15</td>
</tr>
<tr>
<td>2.3. Summary of Literature Gaps and Intended Contributions</td>
<td>18</td>
</tr>
<tr>
<td>CHAPTER 3: RELEVANT TO WHOM? PERSPECTIVES ON NATIONAL PARK SERVICE RELEVANCE IN URBAN AREAS</td>
<td>22</td>
</tr>
<tr>
<td>3.1. Abstract</td>
<td>22</td>
</tr>
<tr>
<td>3.2. Introduction</td>
<td>23</td>
</tr>
<tr>
<td>3.2.1. Urban Opportunity for Relevance</td>
<td>23</td>
</tr>
<tr>
<td>3.2.2. Urban Parks and Relevance</td>
<td>25</td>
</tr>
</tbody>
</table>
3.2.3. NPS Plans to Enhance Relevance .......................................................... 28

3.3. Research Objectives .................................................................................. 29

3.4. Methods .................................................................................................... 30

3.5. Findings .................................................................................................... 32
3.5.1. Perspective defines relevance ............................................................... 32
3.5.2. Audience defined as sub-communities or communities ......................... 34
3.5.3. Goal defined as NPS or city improvements ........................................... 36

3.6. Discussion .................................................................................................. 43
3.6.1. Integrated Relevance: Relevance for Agency and Context Goals .......... 47

3.7. Limitations and Future Research ............................................................... 49

3.8. References ................................................................................................ 50

CHAPTER 4: BROKERS OF RELEVANCE IN PRESENT AND POTENTIAL NATIONAL PARK SERVICE URBAN COLLABORATIVE NETWORKS .......... 59

4.1. Abstract .................................................................................................... 59

4.2. Introduction ................................................................................................ 60
4.2.1. Relevance as a Resilience Threshold and Network Goal ....................... 60
4.2.2. Brokers’ Role in Facilitating Network Relevance and Resilience .......... 63
4.2.3. The U.S. National Park Service’s Urban Agenda .................................. 67

4.3. Research Questions .................................................................................... 68

4.4. Methods .................................................................................................... 68
4.4.1. Data Collection ....................................................................................... 68
4.4.2. Data Analysis ......................................................................................... 70

4.5. Results ...................................................................................................... 71
CHAPTER 5: INTERNAL COLLABORATIONS FOR EXTERNAL RELEVANCE: NATIONAL PARK SERVICE ORGANIZATIONAL RESILIENCE IN URBAN AREAS ................................................................. 94

5.1. Abstract .................................................................................................................. 94

5.2. Introduction .......................................................................................................... 95

5.3. Conceptual Foundation ....................................................................................... 96
  5.3.1. The Relevance of Resilience .......................................................................... 96
  5.3.2. Organizational Resilience – Bonds, Bridges, and Other Structures .......... 98
  5.3.3. Relevance, Resilience, and the National Park Service .............................. 100

5.4. Research Questions ............................................................................................. 102

5.5. Methods ............................................................................................................... 102

5.6. Findings ............................................................................................................... 105
  5.6.1. Bonds ............................................................................................................. 106
  5.6.2. Bridges ........................................................................................................... 108
  5.6.3. Homophily ..................................................................................................... 110
  5.6.4. The Potential of Programs ........................................................................... 110
  5.6.5. Institutional Rigidity ...................................................................................... 112
  5.6.6. Addressing Institutional Rigidity ................................................................. 114

5.7. Summary ............................................................................................................. 116

5.8. Discussion ............................................................................................................ 117

5.9. Limitations and Areas for Future Research ..................................................... 122
## LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 1. Typology of Urban Agenda model areas, with main goals and pilot sites.</td>
<td>20</td>
</tr>
<tr>
<td>Table 2. National Park Service (NPS) presence in case study locations.</td>
<td>56</td>
</tr>
<tr>
<td>Table 3. National Park Service (NPS), community organizations, and overall interviewee characteristics in case study locations.</td>
<td>56</td>
</tr>
<tr>
<td>Table 4. Gould and Fernandez (G&amp;F) brokerage role descriptions.</td>
<td>88</td>
</tr>
<tr>
<td>Table 5. NPS Urban Agenda organizational categories by percent of roster list for each site.</td>
<td>88</td>
</tr>
<tr>
<td>Table 6. Descriptive statistics for present and potential NPS urban collaborative networks in each site.</td>
<td>88</td>
</tr>
<tr>
<td>Table 7. Average number of triads for each G&amp;F brokerage role by organizational category in present and potential NPS urban collaborative networks in each site.</td>
<td>89</td>
</tr>
<tr>
<td>Table 8. Percent capacity (%) in G&amp;F brokerage roles for each organizational category in NPS urban collaborative networks in each site.</td>
<td>90</td>
</tr>
<tr>
<td>Table 9. Participants by National Park Service group and city for each data collection method.</td>
<td>129</td>
</tr>
<tr>
<td>Table 10. National Park Service network and group-level density and homophily measures for actual and potential directional networks of relationships in each model city.</td>
<td>129</td>
</tr>
<tr>
<td>Table 11. National Park Service relationships external to the roster list provided, listed by group and city.</td>
<td>129</td>
</tr>
<tr>
<td>Table 12. Connections between the National Park Service Urban Agenda goals and the concepts of relevance and resilience.</td>
<td>147</td>
</tr>
<tr>
<td>Table 13. Reflection questions for managers when considering how to infuse resilience into multiple scales of relevance.</td>
<td>147</td>
</tr>
</tbody>
</table>
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 1. Map of urban national park units in the continental United States (Brash, 2012)</td>
<td>21</td>
</tr>
<tr>
<td>Figure 2. Model of National Park Service (NPS) relevance, with agency-focused goals and audiences</td>
<td>57</td>
</tr>
<tr>
<td>Figure 3. Model of National Park Service (NPS) relevance, with context-focused goals and audiences</td>
<td>57</td>
</tr>
<tr>
<td>Figure 4. Model National Park Service (NPS) relevance, integrating agency and context-focused goals and audiences</td>
<td>58</td>
</tr>
<tr>
<td>Figure 5. NPS present urban collaborative network in Detroit. Actors colored by organizational category and sized by quartiles of percent capacity of all G&amp;F brokerage roles, with larger actors representing lower percent capacity and more potential for brokerage</td>
<td>91</td>
</tr>
<tr>
<td>Figure 6. NPS present urban collaborative network in Tucson. Actors colored by organizational category and sized by quartiles of percent capacity of all G&amp;F brokerage roles, with larger actors representing lower percent capacity and more potential for brokerage</td>
<td>92</td>
</tr>
<tr>
<td>Figure 7. NPS present urban collaborative network in Boston. Actors colored by organizational category and sized by quartiles of percent capacity of all G&amp;F brokerage roles, with larger actors representing lower percent capacity and more potential for brokerage</td>
<td>93</td>
</tr>
<tr>
<td>Figure 8. Present and potential National Park Service networks in Detroit, Tucson, and Boston</td>
<td>130</td>
</tr>
<tr>
<td>Figure 9. Envisioning internal and context collaborations as a process toward relevance, rather than three equal-weighted goals of the National Park Service's Urban Agenda (left). Relevance is also layered collaborative interaction (NPS, partners, and public) (right)</td>
<td>147</td>
</tr>
<tr>
<td>Figure 10. Overarching conceptual framework for the process of relevance and resilience, incorporating layered audiences and goals</td>
<td>148</td>
</tr>
<tr>
<td>Figure 11. Interactive, Internet-based social network analysis data collection tool</td>
<td>180</td>
</tr>
</tbody>
</table>
Figure 12. Social network analysis scale definitions available to participants. Based on collaboration levels in Frey et al., 2006.
CHAPTER 1: INTRODUCTION

National parks protect vital natural, cultural, and recreational resources and use these resources to tell many of America’s most iconic stories (Manning, Diamant, Mitchell, & Harmon, 2016; Nash, 2001; Runte, 2010). Established for conservation, enjoyment, and appreciation, these spaces embody the democratic ideals of the United States and provide opportunities for all people to engage with their lands and their histories. Although national parks across the country provide these opportunities, the ability to engage large, diverse, and proximate communities is unique to national parks in urban settings. Over the past decades, the National Park Service (NPS) has responded to this opportunity with innovative approaches to connect these communities to their local NPS units (NPS Advisory Board, 2012). Furthermore, the NPS has utilized additional partnership connections and programmatic capabilities to not only engage the audience more deeply with site-based NPS units but also to expand the idea of what a park is and how people may connect with other geographies, themes, and experiences. This dual approach of focusing on NPS sites and expanding connections to the cityscape level (and beyond) is an inventive means to engage audiences and stewards in a manner that transcends park administrative boundaries.

A centennial NPS initiative, the Urban Agenda, expands upon this dual approach and prioritizes urban areas for further NPS investment. This initiative adds to a growing urban investment by other federal land management agencies, including the Forest Service and the Fish and Wildlife Service, as well as urban-centric civic organizations (e.g., 100 Resilient Cities). The NPS has recognized that linkages between relevance and national parks are not equal across geographic and social landscapes, with urban areas
and communities identified as a particularly underrepresented setting and audience (NPS Advisory Board, 2013). This underrepresentation diminishes the democratic nature of the national park system and presents a context where these linkages could be strengthened, especially as the NPS embarks on a second century. The Urban Agenda seeks to utilize pilot model urban areas as part of a forward-looking approach to address this underrepresentation. Staff in these model urban areas intend to create and continuously refine a strategic and sharable practice (i.e., a living document) of building and sustaining coherent systems of urban presence and relevance. This practice offers ways in which the NPS portfolio of parks, partnerships, and programs could be better coordinated for collaborative benefits and better integrated into the urban cityscape for use by their audience, the American public. Framed around three goals – Relevance for all Americans, Culture of Collaboration (with partners), and OneNPS (internal culture of collaboration) – the Urban Agenda explicitly centers on collaborative connections to enhance relevance. Examples of indicators of relevance and collaboration, furthermore, could be shared and adjusted in place-based contexts among cityscapes and expanded throughout areas with NPS presence.

Despite the importance of innovative, collaborative, relevance-enhancing tactics in the NPS’ urban portfolio, this area has received limited research attention. With the NPS’ investment in the Urban Agenda, assessing the tactics used in the model urban areas at the beginning of the initiative may provide valuable baseline information on the current presence of and potential for relevance-enhancing relationships. Baseline information in these realms may assist the NPS with clearer understanding of where existing success stories are present and where efforts of the Urban Agenda may be
focused to improve the NPS’ integration into the cityscape. It may also provide an initial
data set for comparison to evaluate the initiative’s success and contributions over time.
More comprehensive knowledge about relationships within the NPS’ parks, programs,
and external partnerships would aid in understanding the dynamics of how innovative
practices start, are perpetuated, and may be encouraged throughout the agency. Without
such knowledge, the NPS risks a missed opportunity to engage with diverse,
deresented, and local stewards and a loss of understanding of how to cultivate and
sustain stewardship connections.

It is inherent in the democratic ideal of the NPS, and explicit in the NPS’ vision
for the next century of parks, that national parks are open and welcoming for all people.
Urban national parks provide a rich setting in which to investigate the success of a variety
of innovative approaches to reach this democratic ideal (Young, 1996). These setting are
well-poised in part because of their close proximity to large and diverse populations, need
to scale up engagement opportunities beyond their administrative boundaries, and
integration of partnerships and programs in this expansion. A program of research related
to these ideals and attributes would not only aid management of individual NPS units but
also provide case studies and strategies that could be adopted Service-wide. Specifically,
related research aimed at providing knowledge and recommendations on how urban NPS
parks, partnerships, and programs, in the context of the Urban Agenda’s primary goals,
could enhance urban NPS relevance with surrounding communities could advance sound
management practices.

Therefore, research is needed to investigate under-examined topics pertaining to
how the NPS defines and collaboratively engages in relevance (internally and externally).
Such a program can support NPS managers and community partners in their actions to better connect the parks and programs to people. This research examines perspectives, strategies, and connections that cultivate and sustain connections with urban communities to address a fundamental question:

*What are present and potential ways in which the NPS collaboratively strives for relevance and resilience with urban communities?*

As the NPS seeks relevance, they are also seeking resilience, or the ability to maintain a core character while adapting to changes. By anticipating the loss of relevance (or the impediment of its current nonexistence) as a systems change, and seeking adaptive strategies to mitigate this disturbance, the NPS aspires to enhance its organizational resilience. A more resilient and responsive NPS may also contribute to a more resilient cityscape by investing in the conservation and continuity of America’s scenery and stories. Using resilience as the primary lens of this work, with relevance loss as a disturbance, can identify key themes on the intersection of these two increasingly vital concepts. Results from a complementary set of multi-methods investigations will be directly useful to NPS managers and community partners, as well as to the theoretical development of understanding how urban parks, partnerships, and programs function as centers of innovation in connecting people to place.

This dissertation consists of five parts. Chapter 2 is a comprehensive literature review summarizing research on urban parks, programs, and park-related collaboratives and the intersections of these contexts with relevance and resilience. The remaining chapters are four journal article format papers, which result from a program of multi-methods research in three pilot model cities (Detroit, Tucson, and Boston). The first paper (Chapter 3) qualitatively examines how “relevance” is differentially interpreted by
NPS staff and community partners and how viewing these interpretations as complementary may lead to an enhanced model for greater, integrated relevance. The second paper (Chapter 4) quantitatively focuses on areas of brokerage and potential for further connection among NPS entities and community partners. The third paper (Chapter 5) examines the intra-NPS culture of collaboration by qualitatively and quantitatively detailing relevance-focused relationships among parks, programs, and offices. Finally, the last chapter of this dissertation (Chapter 6) serves as a journal article and conclusion, summarizing the research study and primary conclusions from the three prior papers as well as suggesting theoretical and management implications on enhancing urban relevance in resilient ways.
CHAPTER 2: LITERATURE REVIEW

2.1 The Urban National Park Service Presence and Relevance

2.1.1. Urban Parks

Over half of the world’s population lives in urban areas (Department of Economic and Social Affairs, 2008). This proportion is even higher in the U.S., with over 80% living in urban areas (Brash, 2012; U.S. Census Bureau, 2010). Publicly available natural, historical, and cultural areas, predominately in the form of parks, have the ability to connect with a majority of the country’s population in a proximate setting. These spaces also have the ability to contribute to the well-being of all people, and especially these urban populations for whom contact with nature may be more limited in their immediate surroundings (Irvine, Warber, Devine-Wright, & Gaston, 2013; Keiter, 2010; Young, 1996). As the NPS’ mission is both to conserve places of natural and historic significance and to provide for the public enjoyment and appreciation of these places (National Park Service Organic Act, 1916), this agency is in a position to connect the people of the U.S. to their environs through parks on a national scale. Although all national park units in the system are considered equally important to telling the story of America and connecting people to the natural and cultural fabric of the country, urban national parks (Figure 1) have the unique ability to foster these connections in proximity to the greatest number of people (Diamant, 2000, 2011; Hamin, 2001). Indeed, this ability has been long-recognized, beginning with the NPS site designation of the nation’s capital in the 1930s and later with the concerted effort to create NPS units in and near urban areas beginning in the 1960s (e.g., Gateway National Recreation Area, Cuyahoga Valley National Park, Santa Monica Mountains National Recreation Area, Golden Gate National Recreation
Area) and the explicitly stated focus of Secretary of the Interior Walter Hickel of “parks for the people, where the people are” (Rothman, 2004, p. 34). This stress on the urban setting being a prime conduit in which to connect people and parks continues today, including a specific emphasis in the vision for the second century of the NPS, *A Call to Action* (NPS, 2013).

Much of the literature on relevance and urban parks centers on the visitor level. Four main areas of research have been detailed in the literature:

- **Access to urban parks** (e.g., Byrne, 2012; Byrne, Wolch, & Zhang, 2009; Peschardt, Schipperijn, & Stigsdotter, 2012a; Schuett & Bowser, 2006; Stodolska, Acevedo, & Shinew, 2009)
- **Physical activity within urban parks** (e.g., Byrne, 2012; Harnik et al., 2014; Irvine et al., 2013; Korpela, Ylen, Tyrvainen, & Silvennoinen, 2010; Peschardt et al., 2012a)
- **Motivations and benefits of visitation** (e.g., Brash, 2012; Byrne, 2012; Byrne et al., 2009; Chiesura, 2004; Irvine et al., 2013; Korpela et al., 2010; Low, Taplin, Scheld, & Fisher, 2002; Marin, Newman, Manning, Vaske, & Stack, 2011; Plumb, Wilson, Plumb, & Ehrlich, 2014; Schuett & Bowser, 2006; Taplin, Scheld, & Low, 2002; Taplin et al., 2002; Watts, Miah, & Pheasant, 2013).
- **Visitor demographics** (e.g., Andereck & Knopf, 2007; Arnberger & Brandenburg, 2007; Byrne, 2012; Byrne et al., 2009; Richardson & Mitchell, 2010)

Each has examinations of differences based on societal groups (e.g., race/ethnicity, age cohort, socio-economic class) and city structure (e.g., distance to parks, distribution of parks, quality of parks), highlighting social and environmental justice concerns (Ferreira, 2012; Knowles & Long, 2012; Santucci, Floyd, Bocarro, & Henderson, 2014; Schuett & Bowser, 2006). Studies are scarce on what park managers identify as relevant narratives to present to visitors and if these narratives align with those that the community identifies as important.
2.1.2. National Park Service Programs

The NPS manages programs that stretch across and beyond park boundaries to support the NPS mission. Program creation and consolidation under the NPS gradually increased over the last century, with a number of programs being created especially in the 1960s-1970s and 1990s. The agency administers 52 non-park based programs (U.S. Office of Policy, 2013).

Although NPS programs are an important component of reaching communities beyond the administrative boundaries of national parks, they have garnered relatively little attention in the scientific literature. The NPS has used programs to expand upon the system of biologically significant areas of the U.S., and the involvement of communities in protecting these areas, such as through its National Natural Landmarks Program (Gibbons, 2000) and Rivers, Trails, and Conservation Assistance Program (Miller, 1995). The NPS has emphasized the Rivers, Trails, and Conservation Assistance Program as the most strategically poised program in urban areas, due in part to this program’s historical success in these places (Knowles & Long, 2012; NPS Advisory Board, 2012). Narratives on changes in implementation of historic or cultural preservation programs indicate an increasing (though not complete) receptiveness toward public involvement, advancements in technology, and decentralization of historic nomination processes (Bearss, 1987; Maynard, 1998; Perschler & Hall, 2007; Praetzellis & Praetzellis, 2011; Spude & Rogers, 2005; Striegel, 2003).

Programs in urban areas have received particularly sparse attention in the scientific literature. However, they have had a long and adaptive urban presence. Historic programs, for example, originated in the 1930s primarily to administer cultural resource
projects in city, county, and state parks enrolled in the New Deal’s Emergency Conservation Works (Bearss, 1987). These programs continue to evolve, in ways such as emphasizing heritage archeology and restorative justice with cultural resources management surrounding the Cypress Freeway Project in West Oakland, California (Praetzellis & Praetzellis, 2011), and using advanced mapping technology to reconstruct Revolutionary War battlefields and historic landscapes obscured by urban features in Boston (Maio, Tenenbaum, Brown, Mastone, & Gontz, 2013). The NPS has increasingly recognized the importance of public involvement and community-based approaches in urban settings, such as lending programmatic assistance to establishing memorials to those lost in terrorist incidents in Oklahoma City and New York City (Linenthal, 2006). To heighten its presence in urban areas, there are calls from NPS partners for the NPS to complement or supplement urban NPS units (present and proposed) with program offices (Knowles & Long, 2012). These program offices could extend the NPS regional offices into additional cities, house more than one program, and provide a gateway to a broader range of NPS functions (Knowles & Long, 2012). Though understudied, NPS programs facilitate relationships with urban populations through multiple means and continue to look for new means to do so.

2.1.3. National Park Service Collaborations in Urban Areas

NPS parks and programs in urban settings are involved in partnerships with local communities. Often, these partnerships leverage resources to create successful connections between parks and people via nontraditional approaches (Economides, 2004). Examples are found in as wide-ranging contexts as NPS-city collaborations in San Antonio, Texas, to extend city bike trails and bike sharing programs to San Antonio
Missions National Historical Park (Sherwood & Murphy, 2014); joint land ownership in Santa Monica Mountains and Golden Gate Recreation Areas (California) (NPS Advisory Board, 2014; Rothman, 2004); and programs such as Park Prescriptions that emphasize parks as places to engage in healthy behavior (e.g., physical activity, meditation, time away from screens) (Baur & Tynon, 2010; Institute at the Golden Gate, 2010; Liechty et al., 2014; Tardona, Bozeman, & Pierson, 2014). In responses to A Call to Action (NPS, 2013), the NPS has further emphasized the importance of addressing challenges and engaging urban communities through partnerships.

### 2.1.4. National Park Service Urban Agenda as a Plan for Enhanced Relevance

To “enhance relevance pathways,” the NPS aims to build its capacity to reflect America’s diversity and engage local communities. An urban parks and programs affinity caucus convened in 2012 to share preliminary urban knowledge, success stories, and known areas for improvement (NPS, 2012). The goals of this community of NPS urban practitioners were to discuss the role of urban areas in relation to the NPS centennial, identify ways to improve organizational relevance, and develop a plan for an established community of practice (Knowles & Long, 2012; NPS, 2012). This caucus recognized the opportunity that growing, diversified urban centers provide for broadening the networks and constituencies of the NPS (NPS, 2012).

An outgrowth of this 2012 urban caucus is the NPS’ Urban Agenda. The NPS initiated this landmark initiative in April 2015 (NPS Stewardship Institute, 2015). The Agenda follows up on a pledge the NPS made to the American people in its recent report, A Call to Action (NPS, 2013). A Call to Action challenged the NPS to become a more flexible and adaptive organization. Action #31, Destination Innovation, explicitly
recognizes the need for accelerated sharing of ideas and peer-to-peer collaboration to foster innovation, collaboration, and entrepreneurship. The Urban Agenda integrates these action items into NPS planning by recognizing the fundamental importance of healthy and livable cities, and their populations, to the well-being of the nation, and detailing pathways toward this health in the Agenda’s three principles (NPS Stewardship Institute, 2015).

The three principles of the Urban Agenda are to be relevant to all Americans, nurture a culture of collaboration, and activate “OneNPS.” Relevance to all Americans is a complex principle. To address relevance (including diversity and inclusion measures), the NPS is reworking its strategy to encompass a multi-dimensional approach in its parks, partnerships, and programs (NPS Stewardship Institute, 2015). Increasing relevance has been a long-noted need of the NPS (McCown et al., 2011; Santucci et al., 2014). Urban Agenda approaches to promote relevance include examining and reimagining how to engage future stewards and how to expand the notion of what a park is. Nurturing a culture of collaboration reaches beyond administrative boundaries to work routinely in partnership, fostering respect, strong relationships, and shared goals (NPS Stewardship Institute, 2015). Activating “OneNPS” is a means of emphasizing all NPS parks and programs and engaging the entirety of the NPS (NPS Stewardship Institute, 2015), as opposed to individual parks and programs operating as more isolated entities. This relates to the NPS working as a system of parks and programs and connecting this system with the American public (Knowles & Long, 2012).

To promote these goals, the Urban Agenda is complemented by a suite of pilot model areas, each of which is supported by an Urban Fellow. A primary component of
the Urban Agenda is the identification and investment in model urban areas. NPS Regional Directors recommended model areas that were well-poised with NPS leadership and buy-in; ready and committed to testing new ways of working; had existing good relations with local government and partners; and illustrated interest and stewardship for historic, natural, educational, and recreational resources (NPS Collaborative for Innovative Leadership, 2014). In selecting areas from these recommendations, the NPS examined where strong partners and programs (local, state, and/or federal) existed. Areas considered for selection were classified into three categories: NPS physical park presence (i.e., urban-embedded), NPS physical park presence adjacent to the city (i.e., urban-adjacent), and without a NPS physical park presence (i.e., programmatic-only presence) (NPS Collaborative for Innovative Leadership, 2014; NPS Stewardship Institute, 2015) (Table 1). Considering these criteria, 10 pilot urban model areas were selected (Table 1). These model areas were envisioned to provide linkages among national and regional resources and local settings (NPS Stewardship Institute, 2015).

For the NPS to advance its relevance goals and position itself to be an active partner in urban areas, it integrated an Urban Fellows program into the deployment of the Urban Agenda (NPCA Center for Park Management, Institute at the Golden Gate, & NPS, 2014). An Urban Fellow for each model city area was hired in early 2015. The Urban Fellows were expected to serve as both a catalyst and “intertwine” between parks, programs, and partners (NPS, 2015). Supported by a NPS Site Host (NPS leadership staff working in the area, such as a park superintendent), they worked with partners across sectors, particularly in the realms of economic vitality, historic preservation, outdoor recreation, health, connections to youth, connections to educational opportunities, urban
design, and sustainability. Goals for the two year fellowship included repositioning and enhancing the NPS role and brand; launching new initiatives aimed at enhanced relevance; developing talented and experienced leaders; and evaluating, learning from, and adapting the NPS Urban Agenda strategies (NPCA Center for Park Management et al., 2014).

2.2. Resilience

2.2.1. Resilience Theory

The Urban Agenda and its three principles may be viewed through the lens of resilience. Although resilience began as a primarily ecological concept, it has evolved to encompass whole, complex social-ecological and social systems (Gunderson & Holling, 2002). These systems are characterized not just by biotic-abiotic interactions, but also the symbolic constructions and reflexivity possessed by human actors (Dwiartama & Rosin, 2014). Thus, the resilience, or durability, of a system and its components is also influenced by human agency and social capital. Resilience can be further elaborated as the capacity of a system to absorb disturbances; reorganize while changing; and still retain primarily the same functions, structures, identity, and feedbacks (Walker & Salt, 2006, 2012). In complex systems, there are multiple scales of systems and resilience (i.e., panarchy, Gunderson & Holling, 2002). Relationships between actors (human and non-human) on these multiple scales can be described and modified in ways that build resilience (Dwiartama & Rosin, 2014). The relationships can also be used to identify system thresholds and system shocks that can lessen resilience (Walker & Salt, 2006).

Most systems proceed through cycles of four phases in a cycle of adaptive change: rapid growth, conservation, release, and reorganization (Gunderson & Holling,
How the system functions differs from phase to phase, depending on the strength of its connections, flexibility, and resilience (Walker & Salt, 2006). Resilience is a complementary consideration in this cycle, with generally less resilience as systems become more connected and resources become more bound. Resilience can also be thought of as an overall feature, with areas of the cycle having more or less resilience but an overall resilient system being able to go through iterations of the adaptive cycle while staying intact and maintaining its essential properties. A resilience practice is the describing of the system, assessing of its resilience, and managing for its enhanced resilience (Walker & Salt, 2012).

Although sudden/abrupt disturbances are commonly considered opportunities of change (i.e., resilience thresholds), incremental/gradual disturbances such as the eventual rather than instantaneous loss of relevance can be considered a precursor resilience threshold (Ponomarov & Holcomb, 2009). In precursor resilience contexts, potential disturbances are known and may be circumvented through foresight (Boin & van Eeten, 2013; Comfort, Sungu, Johnson, & Dunn, 2001; Foster, 1993). Ways in which to build precursor resilience are found in multiple contexts. Organizations that can pre-emptively address these disturbances, adaptively changing to provide points of engagement with the public, are better suited to sustain momentum toward relevance as a goal instead of a disturbance. Networks of multiple organizations that share this common goal may be well-positioned to incorporate new, diverse, or more widespread expressions of relevance (Page, Stone, Bryson, & Crosby, 2015; Vangen & Huxham, 2012). Collaborative networks have increasingly been used as a means to steward natural and cultural resources, especially in parks and protected areas (e.g., Belaire, Dribin, Johnston, Lynch, 2002).
& Minor, 2011; Enqvist, Tengo, & Bodin, 2014; Hamin, 2001; Holman, 2008; Kazmierczak, 2013), and brokers within these networks may facilitate connections for relevance and resilience. On a smaller scale, the interpersonal relationships within an organization may also suggest its ability to share knowledge, mobilize resources, and respond to opportunities and threats (Morgan, 2006; Ryu, 2017; Yang & Maxwell, 2011). However, in both contexts, the parsing of these relationships and their meaning for relevance and resilience has been of limited focus in the literature.

2.2.2. Resilience in Practice in NPS and Urban Areas

Urban revitalization efforts are attempts at positive, adaptive changes to reverse urban abandonment and decay. These efforts routinely involve the promotion of parks, historic restoration, and cultural interpretation (Johnson, Glover, & Stewart, 2014). Parks have the ability to transform urban spaces into urban places, drawing people in to experience special features and activities that reflect a city’s image and personality (Economides, 2004). It is vital, however, to not just market these areas as destinations for tourists, but to ensure these areas are accessible and inviting for locals as well (Johnson et al., 2014). To do so, these areas need to be viewed as places for everyday leisure (Francis, 2006; Johnson & Glover, 2013; Johnson et al., 2014). The NPS has recognized that the revitalization of urban neighborhoods and industrial infrastructure, more so than preserving areas and structures in museum-like states, may be the most appropriate involvement for the agency in urban revival efforts (Knowles & Long, 2012). Integrating urban parks and related programming into everyday life for urban residents contributes to the relevance of these areas to the locals’ lives and to the resilience of these people-park connections over time.
Innovative approaches suggest a burgeoning resilience of relevant park-people connections in urban areas. The Los Angeles Urban Rangers, for example, have adopted the NPS ranger persona to engage urbanites with local protected areas (city, county, state, and national parks) (Bauch & Scott, 2012). This expands upon the prominent/prevalent notions of what a park is (i.e., not only remote, pristine, natural settings) and heightens the visibility and accessibility of parks within the city boundaries. The growing emphasis on the connection between urban national parks and health also exemplifies innovative strategies to enhance park-people connections and resilience. In a survey of visitors to urban and non-urban NPS units with health-focused programming, 90% of NPS and community partners agreed this new area of focus in national parks was appropriate for the NPS to expand its relevance connections (Wong & Higgins, 2010). This illustrates a ripe exploitation phase with resources coalescing around an innovative, cross-discipline recreation and health idea. Other examples include using greenways to promote social-ecological systems connectivity in a city and the flourishing of temporary “pop-up” parks as a creative and non-permanent use of space (Searns, 1995; Wilson, Tierney, Kim, & Zieff, 2012). Measures such as this allow for the repurposing of common spaces for greater park-people connection in a means less cumbersome than creating a large polygon or spatially permanent park.

Although institutions provide stability and structure needed for development and growth, at times the rigidity of policies and perceptions of policies can detract from overall resilience and ability to adapt. The NPS exhibits this resilience-detracting rigidity. As managers of 417 park units across the country, as well as programs and offices, the NPS is tasked with considering its mission and policies as well as the site-specific context
of each entity in its portfolio. Context-specific actions in one unit, however, are often discarded if these actions are perceived to be inappropriate for application in all units (Knowles & Long, 2012; NPS Advisory Board, 2012; Rothman, 2004). This rigidity is especially obvious in urban settings, where the integrity of the site, resources, or community interactions differ from those in more rural or wilderness settings (Rothman, 2004). Encouraging greater public use of NPS units in urban settings requires site-specific approaches that are at times at odds with management policies in other NPS units. The contentious issue of dogs in parks has long exemplified this (Rothman, 2004), especially in urban and urban-proximate NPS units (Tardona, 2012). The potential for entirely urban-appropriate management actions (e.g., allowing leashed dogs on urban trails) to set poor precedent in larger rural or wilderness national parks is perhaps the number one source of strife between the NPS and potential partners in urban areas (NPS Advisory Board, 2012). Although this source of strife does not seem insoluble, the NPS currently struggles with internal structures flexible enough to consider application of these measures in a means that does not set precedence across all NPS units.

In planning for the future of the NPS, building institutional capacity for enhanced systems planning is needed (Knowles & Long, 2012). The National Park System Advisory Board has recommended that the NPS pursue systems planning that is “expansive in scale, adaptive, and dynamic” (Knowles & Long, 2012, p. 34). This proactive outlook would enhance the agency’s capacity for flexibility and responsiveness. The envisioning of the next century of the NPS also highlights this need for adaptation, encouraging choice, flexibility, and creativity (NPS, 2013).
The Urban Agenda and all three of its goals are expressions of a desired resilience. The focus on urban areas indicates untapped potential in a niche and creative means by which to consolidate resources and fill this niche. The emphasis on relevance to all Americans is an objective to build and maintain connections within the system, even over changing conditions and disturbances. Nurturing a culture of collaboration fits with strengthening ties among actors throughout the adaptive cycle to understand the resources available, mobilize quickly in situations of opportunity, and respond collectively to disturbances in the system. Finally, activating “OneNPS” implies a need to assess and consolidate resources within the agency, creating intra-organizational knowledge and connections so that inter-organizational ties can be more efficiently facilitated.

2.3. Summary of Literature Gaps and Intended Contributions

In general, there is little extant synthesized understanding about the urban NPS presence (parks, partnerships, and programs). Furthermore, information is also scarce on how resilience theory could contribute to a greater understanding of these NPS entities, associations, and pathways toward relevance. Beyond the specific instance of the NPS, delving into these concepts provides an opportunity to extend understanding of relevance, intra and inter-organizational collaborations for relevance, and the resilience of these endeavors on multiple scales. Examining these concepts and contexts in a multi-methods, multi-case study format may also provide insight on productive ways in which indicators for the objectives of relevance and resilience can be formulated (Manning, 2011). Given this paucity of knowledge, research focused on this topic is warranted. This research thus addresses the fundamental question:

*What are present and potential ways in which the NPS collaboratively strives for relevance and resilience with urban communities?*
Using the Urban Agenda in Detroit, Tucson, and Boston as case studies and employing in-depth qualitative interviews and quantitative social network analysis approaches, each of the following chapters of this dissertation examines an aspect of this overarching question:

- Chapter 3: How is “relevance” interpreted by NPS staff and community organizations?
- Chapter 4: Who are facilitators of relevance in NPS-centered urban networks?
- Chapter 5: Where are areas of opportunity for increased relevance capacity intra-NPS?
- Chapter 6: Why is it important?

These questions are directed toward how the NPS functions in urban areas: connects people to its full portfolio, invests its diverse skill set, uses partnerships to enhance relevance, and embraces opportunities for further connection. They also contribute specific examples and potential indicators of how the NPS urban presence may impact cityscape resilience and how the Urban Agenda may enhance this resilience. Investigating this suite of questions is intended to provide information and knowledge useful to the specific model areas, to the Urban Agenda more broadly, to the NPS as a whole, and to theories of resilient, relevant community engagement with conservation agencies in non-traditional settings.
Table 1. Typology of Urban Agenda model areas, with main goals and pilot sites.

<table>
<thead>
<tr>
<th>Type</th>
<th>Main Goals</th>
<th>Pilot Model Areas</th>
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| Urban-embedded      | Develop strategies for alignment of park, program, and partner resources and focus on opportunities for community engagement, leveraging of resources, cooperative management, access and transportation enhancements | Boston (MA)  
                             New York City (NY)  
                             Philadelphia (PA)  
                             Richmond (CA)  
                             Richmond (VA)  
                             St. Louis (MO)  
                             Washington (DC)  |
| Urban-adjacent      | Explore new interpretations of the NPS role and engagement with these proximate areas and encourage community outreach and coordination of urban roles and agendas with partners | Jacksonville (FL)  
                             Tucson (AZ)  |
| Programmatic-only   | Coordinate and align programs with partners to complement and augment existing capacity and community connections                                                                                      | Detroit (MI)                                           |
Figure 1. Map of urban national park units in the continental United States (Brash, 2012).
CHAPTER 3: RELEVANT TO WHOM? PERSPECTIVES ON NATIONAL PARK SERVICE RELEVANCE IN URBAN AREAS

Target Journal: Environmental Communication

3.1. Abstract

Public “relevance” is a tantalizing necessity for conservation agencies. Diminished relevance may weaken stewardship of and ultimately support for these agencies and the resources they protect. The National Park Service (NPS) recognizes that expanded relevance is imperative to fulfilling the agency’s democratic mission of conserving sites and stories for the enjoyment, education, and inspiration of all Americans. In urban areas, with diverse local audiences, examining perceptions about NPS relevance may offer insight on relevance-enhancing approaches. The NPS’ Urban Agenda highlights NPS-partner efforts as a relevance-enhancing strategy. However, perspectives vary on the target audiences and goals central to these efforts. We interviewed NPS staff and local partners to explore these perspectives in Detroit, Tucson, and Boston, eliciting two types of relevance: agency and context-focused. Each functions on a different scale to engage audiences and pursue common goals. We propose that integrating these two types may promote actionable pathways toward greater relevance.

Keywords: relevance, National Park Service, urban, Boston, Tucson, Detroit, evaluation, collaboration
3.2. Introduction

3.2.1. Urban Opportunity for Relevance

Conservation agencies such as the National Park Service (NPS) have long recognized the need to identify and reach underrepresented audiences to build relevance and cultivate stewardship (Jarvis 2012; Keiter 2010a). With an ever-increasing urbanization of America – 80% of Americans now live in urban areas – and the diversity of Americans residing there, cities are now viewed as a critical geographic area for engagement (Brash 2012; U.S. Census Bureau 2010). Publicly available natural, historical, and cultural areas, predominately in the form of parks, have the ability to connect with and contribute to the wellbeing of the majority of the population in this proximate setting (Diamant 2000; Diamant 2011; Hamin 2001; Irvine et al. 2013; Keiter 2010a; Young 1996). As the NPS has a large but less recognized presence in urban areas, emphasizing this presence in ways meaningful to this large, local audience is at the forefront of NPS stewardship and engagement initiatives (e.g., A Call to Action and the NPS Urban Agenda [UA]) (NPS 2013; NPS Stewardship Institute 2015). This study examines perspectives on relevance from NPS staff and community partners in Detroit, Tucson, and Boston to examine what aspects have been identified as critical to enhanced NPS local, urban connections.

Despite the potential for urban NPS parks to connect with large local audiences, creating and enhancing connections between these places and populations, or forging relevance has been a tricky endeavor. Stewardship of America’s parks needs investment beyond solely the efforts of the NPS. Sustainable success entails members of the public
seeing themselves as stewards of these conserved resources and as participants in the conservation narrative (Eagles 2014). The impetus is on the NPS to enhance this broad sense of stewardship by continuously forging, strengthening, and adapting connections that resonate with shared goals of the public.

The action of building and sustaining these connections is that of seeking relevance. Relevance is an elusive, ideal state. As with other ideals like freedom, liberty, and justice, the importance is to reach for this goal, or as Aldo Leopold pronounces, “In these higher aspirations the important thing is not to achieve but to strive” (Leopold, 1972). Because the act of striving for relevance is of greater practical utility than achieving relevance, relevance may be considered as more of a journey than a destination, needing continual inputs and refreshments. As the NPS has conserved resources both for their intrinsic value and for the enjoyment of all people (National Park Service Organic Act 1916), it is imperative that the NPS continuously seek chords of relevance with intended audiences to reach for the agency’s democratic ideals.

Relevance, however, is a term always in need of a recipient: Relevance for whom or for what intent?

Gorayska and Lindsay (1993) offer a process-focused model of relevance, stating that when an actor and an audience share a common goal, the ways in which the actor aims to reach this goal can enhance its relevance to the audience. Without goals articulated, relevance is left hanging as a good but non-directional intention. Without audiences articulated, management plans may flounder for lack of specificity. This view of relevance requires goal alignment between the entities and elaborates on the idea of
preset goals, which may or may not be explicitly defined or focused on by the actors in the model. In this respect, it differs from technical articulations of relevance as an automatic, goal-independent cognition (Sperber & Wilson, 1987). For example, for the NPS (actor) to enhance its relevance to urban populations (audience), the NPS would need to recognize common goals with urban populations and then act on plans that work toward these goals. Given the importance of partnerships in meeting relevance goals for intended audiences, it is furthermore important to examine the congruence of these articulations between the NPS and its collaborators. Nuanced understandings of how explicit and overlapping goals need to be for relevance in organizational and collaborative efforts continues to be a topic of investigation (Lindenfeld et al. 2012; Shellabarger et al. 2012; Vangen and Huxham 2012). Despite its practical, process-focused nature, examining relevance as a concept has garnered little attention in the environmental social sciences.

3.2.2. Urban Parks and Relevance

The NPS, and conservation organizations more broadly, are faced with the issue of maintaining and increasing an invested base, community, or target audience, through growing relevance (Simon 2016). Managers from a variety of urban and urban-proximate NPS sites have identified understanding visitor needs and program delivery as a main issue to address to promote site visitation by a wider range of the population (Schuett and Bowser 2006). In the case of the NPS, the target audience for relevance initiatives has increasingly been racial/ethnic minorities. Racial/ethnic minorities are chronically underrepresented in national park visitation (Solop, Hagen, and Ostergren 2003; Taylor,
and even in national parks close to large urban racial/ethnic minority communities (Andereck and Knopf 2007; Arnberger and Brandenburg 2007; Byrne 2012; Byrne, Wolch, and Zhang 2009; Perry, Xiao, and Manning 2015; Richardson and Mitchell 2010). As U.S. demographics continue to shift and racial/ethnic minorities constitute greater portions of the population, creating and sustaining connections with these groups is vital to the long-term success of the NPS. Continued underrepresentation of these groups may narrow the stewardship base for national parks and their ideals.

Responding to this potential diminishment of relevance has been a priority of research on urban parks. Park relevance research has primarily focused on two areas: access to parks and motivations of visitors. Studies related to access are mainly concerned with state, county, and city parks (e.g., Peschar et al., 2012; Stodolska, Acevedo, & Shinew, 2009). These examinations often have overlays of how access factors/barriers differ based on societal groups (e.g., race/ethnicity, age, socio-economic class) and city structure (e.g., distance to parks, distribution of parks, quality of parks), highlighting social and environmental justice concerns (Byrne 2012; Byrne, Wolch, and Zhang 2009; Ferreira 2012; Knowles and Long 2012; Loukaitousideris 1995; Morath 2016; Perry, Xiao, and Manning 2015; Santucci et al. 2014; Schuett and Bowser 2006; Schuett and Bowser 2006; Stodolska, Acevedo, and Shinew 2009). It has been noted that 10 of the 50 most populous urban areas in the U.S. do not have a NPS units within a 50 mile radius (NPS Advisory Board 2012). Specific studies on access barriers to urban national parks have tended to focus on racial/ethnic differential rates of visitation, and to
Santa Monica Mountains National Recreation Area, the nation’s largest urban national park, in particular (Byrne, 2012; Byrne et al., 2009; McCown, Laven, Manning, & Mitchell, 2012).

Much of the other literature on relevance and urban parks centers on motivations and benefits (as a proxy for goals) as means of connecting the resource with a particular audience and providing relevance pathways for current visitors. For example, visitors to Cleveland’s Metroparks system reported motivations of learning, having autonomy, participating in activities, being social, enjoying nature, and improving health (Kyle, Mowen, and Tarrant 2004). Reported motivations in NPS and other urban park contexts are similar, with studies noting relaxing, appreciating nature, enriching understanding, escaping the city, experiencing a personal connection with the resource, enhancing wellbeing, and finding freedom often ascribed motivations to visitation (Brash 2012; Byrne 2012; Byrne, Wolch, and Zhang 2009; Chiesura 2004; Irvine et al. 2013; Korpela et al. 2010; Low et al. 2002; Marin et al. 2011; Plumb et al. 2014; Schuett and Bowser 2006; Taplin, Scheld, and Low 2002; Taplin, Scheld, and Low 2002; Watts, Miah, and Pheasant 2013). To enhance relevance, the NPS has tried to better understand these motivations and incorporate them into interpretation and site design. At Independence National Historical Park, for example, the NPS acknowledged that promoting a single-story meaning of the place contributed to underrepresentation of certain visitor groups and addressed these concerns through greater community participation in the planning process (Low et al. 2002; Taplin, Scheld, and Low 2002).
These veins of inquiry, however, are routinely focused at the visitor level. Studies are scarce on what park managers identify as relevant narratives to present and if these narratives align with those that the community identifies as important.

3.2.3. NPS Plans to Enhance Relevance

NPS plans to enhance relevance pathways focus on increasing the agency’s capacity to reflect America’s diversity and engage local communities. A foundational framework of the NPS, *Keeping Parks Relevant in the 21st Century* (Mitchell et al. 2006), identified means by which to achieve this: work with others to tell inclusive stories; engage in an ongoing dialogue with openness, sensitivity, and honesty; sustain community relationships; and create a workforce reflective of society. These remain priorities for the NPS in its quest for relevance (Jarvis 2012), although there appear to be notable barriers to implementation (including institutional support) (Morath 2016).

Further research on how to deeply engage diverse communities has continued the focus on racial and ethnic minorities and youth, with an emphasis on NPS-centered goals such as visitation, workforce diversity, and sites and stories represented in the National Park System (McCown et al., 2011; Schiavo, 2016).

In an attempt to move toward relevance with a fuller spectrum of the American population, the NPS initiated its Urban Agenda (UA) in 2015 (NPS Stewardship Institute 2015). The UA recognizes the fundamental importance of healthy and livable cities, and their populations, to the wellbeing of the nation (NPS Stewardship Institute 2015) and aims to critically examine the agency’s connections and contributions in urban areas. It also establishes relevance as an overarching goal to its work in reaching communities and
nurturing a culture of collaboration (internally and externally). To support this goal, the UA is complemented by a suite of 10 model areas, each staffed by an Urban Fellow. The Urban Fellows were expected to serve as a catalyst and intertwine between parks, programs, and partners. All 10 model areas have a NPS programmatic presence, or the non-park programs of the NPS that extend the agency’s mission and work beyond park boundaries (e.g., Rivers, Trails, and Conservation Assistance Program; National Historic Tax Credits; National Heritage Areas) (Table 2). These model areas are categorized into three levels representing an aggregating spectrum of NPS physical presence (i.e., park/parks) (NPS Collaborative for Innovative Leadership 2014; NPS Stewardship Institute 2015) (Table 2). First, in many cities, the NPS has a programmatic presence within the city and parks distant to the city. Second, in a subset of these cities, the NPS also has a park adjacent to the city. Third, in a subset of this subset of cities, the NPS also has a park within the city.

3.3. Research Objectives

The NPS has identified “Relevance to All Americans” as a main goal of their UA, yet aspects of relevance linkages have yet to be explored in detail. Given that relevance is a process where audience definition and goal alignment is critical, we sought to explore how audience and goal are interpreted by NPS and partner organizations in relevance-engagements across urban areas. This work was guided by three overarching questions:

- How is relevance conceptualized by the NPS and partners in urban contexts?
- What areas have been identified by the NPS and partners as opportunities for enhanced relevance?
- What model unites NPS and partner conceptualizations of relevance for enhanced impact?
3.4. Methods

Due to the evolving nature of the NPS’ UA, the complexity of the cityscape, the mercurial nature of relevance, the need for baseline information, and the desire of the NPS to utilize study processes and findings in meaningful ways, we designed a utilization-focused developmental evaluation (Patton 2008; Patton 2011). In this evaluation, our research explored elements of urban areas predetermined by the NPS. As such, this research is guided by intrinsic collective case study considerations (Stake 1995). Following the three-tier NPS categorization of physical park presence, three case study areas were investigated: Detroit, Michigan (parks distant); Tucson, Arizona (parks distant and adjacent); and Boston, Massachusetts (parks distant, adjacent, and within) (Table 2).

We used qualitative methods to evaluate relevance-related processes within the complex settings of these three cases (Patton 2002). “Quality” qualitative inquiry in evaluation relies on the researcher maintaining a clear sense of personal and professional identity, engaging stakeholders and developing trust, employing sound and systematic methodology, respecting and prioritizing the participant-articulated meanings over researcher interpretations, and skillfully facilitating to encourage learning (Goodyear et al. 2014). In this investigation, we used in-depth interviewing as a means to elicit information while adhering to quality considerations.

The lead author conducted 63 interviews with representatives of NPS park and program staff and a variety of partnering community organizations (21/site) (Table 3). The NPS Urban Fellows and Site Hosts were key informants in identifying and accessing potential participants. Interviews were conducted October 7 – November 27, 2015, and averaged 58 minutes. There was considerable variation in the interview time (ranging 25-
120 minutes), depending upon interviewee availability, but the majority of interviews were about an hour. Most interviews were conducted in-person; telephone interviews were conducted as an alternate, secondary means of data collection when in-person interviews were not feasible during the study period. Interviews followed a semi-structured format, guided by a set of topical questions on NPS relevance connections to, and aspirations for, the local community (Stake 2010). In keeping with the utilization-focused nature of this evaluation, we posed questions of value to the intended users (Patton 2014). Therefore, we included the NPS UA organizers in designing of the evaluation as a whole and in developing interview questions and recruiting participants in particular.

Transcriptions of the voice-recorded interviews were coded for themes of importance to the NPS and emergent concepts identified through the research process (interview notes and field memos). We used structural, descriptive, and versus coding as main approaches (Saldana 2013). The lead author conducted all code generation and application. Coding reliability was enhanced through expert consultation (e.g., code and overarching concept refinement) 26 times during the interview construction, fieldwork, and coding process, plus periodic sharing of process and results with the NPS. We refined the codebook 12 times: six times pre-coding (using field notes, initial transcription reads, and NPS questions of concern as a basis), four times during coding (deleting unused codes, merging similar concepts, and reorganizing codebook structure), and two times post-coding (final examinations of code and theme structure in relation to body of data and known pertinent questions).
During coding, particular themes and instances became pronounced. One set of these themes and instances related to how relevance takes life as a process, goal, and connection to specific audiences. In this work, we draw from coding structure related to these concepts. Illustrative quotes and examples have been chosen that represent the essence of a concept or a particular view or strength of opinion. For the sake of clarity and succinctness, these quotations have been lightly edited (e.g., speech idioms removed, minor grammatical errors corrected). Care has been taken not to alter the ideas expressed by interviewees. To maintain confidentiality, interviewees are referred to solely by urban area and general organization type.

3.5. Findings

Our findings highlight the different ways in which NPS and formal partners (i.e., agency-focused relevance) and civic and community organizations (i.e., context-focused relevance) perceive the audience and goal of NPS connections in Detroit, Tucson, and Boston. In this section, we provide detail on these different perceptions. Agency-focused and context-focused models of these perspectives on relevance are summarized in Figure 2 and Figure 3, respectively.

3.5.1. Perspective defines relevance

Relevance can seem as elusive as running toward the horizon. Unlike an endless run, though, it is not taken in vain. Progress can be made and ground covered, even if it seems impossible to cross a final finish line. Every participant expressed agreement with the importance of the NPS UA goal of “Relevance to all Americans.” Because relevance is inherently relational and depends on how a target audience is identified, a goal is
expressed, and plans are laid to reach that goal and audience, we heard the concept detailed in different ways. We found two main arteries for relevance: agency or context-focused. Agency-focused relevance defines the goal as delineated by NPS boundaries within a city and targets particular, known audiences for this goal. Context-focused relevance suggests city-wide goals, beyond NPS boundaries, and a wider range of audiences. In general, this difference was more pronounced between NPS and its formal partners (agency-focused) and civic and community organizations (context-focused) than the differences among the three sites. A formal NPS partner in Tucson, for example, voiced relevance as increasing NPS site visitors: “The Park Service, like many other institutions, has relied on people coming to their doors.” (T20) and that relevance is lost if people do not visit the parks. Contrastingly, an environmental group founder in Tucson centered relevance on expanding the conversation about the entire surrounding ecosystem: “The Sonoran Desert is kind of a ground zero in terms of climate change and especially with water drought, which is related – getting people to understand and appreciate this.” (T18). Expressions of relevance were present in the data concerning the NPS specifically or how the agency could contribute to the city generally.

Furthermore, two types of privilege concerning relevance were important to participants. First, there exists privilege in the ability to consider relevance in general. Although all interviewees were concerned with the topic of relevance, and what a relevant NPS would look like, many non-profit and commercial organizations plainly stated that only government agencies have “the luxury” of considering relevance and taking long paths to find it. Finding new audiences, new shared goals, and new pathways
to reach those goals, was present in all of these organizations’ actions; without the revenue from visitors or the backing of patrons, they would cease to exist. It was therefore frustrating to some participants that relevance has been a long-noted NPS discussion but the agency had taken only small steps forward. An official NPS partner in Boston summarized this frustration: “Sometimes [we] obsess a little too much about beating our breasts and saying ‘Are we relevant?’ rather than just getting out there and doing it.” (B19). Second, there exists privilege in assuming NPS relevance is a priority. NPS and partners alike stated that the relevance of the NPS was not a priority given more pressing issues facing communities. A NPS programs staff, for example, noted that many communities, including Detroit, did not have the financial capital to contribute to the Land and Water Conservation Fund (LWCF, a parkland conservation program). Instead, “They're all worried about paying their firemen and their policemen, and maintaining city hall and all those kinds of things versus going out and buying new parklands or improving the parklands.” (D13). Thus, the NPS assumes relevance of a park mission to an urban area, is slow to address relevance concerns, and may not be sensitive of the realities others face.

3.5.2. Audience defined as sub-communities or communities

NPS and formal partners often mentioned two local sub-communities as audiences for relevance initiatives: racial/ethnic minorities and youth. These two populations align with those focused on in the UA when the NPS details specific communities within “All Americans” as key audiences. Some participants mentioned additional groups (e.g., low income families, beyond the physically active, the “base” of
current/traditional visitors, LGBTQA+), but emphasis was primarily on these two.

Although interviewees recognized that no single initiative would be appropriate for reaching all minority groups, these groups were often mentioned together as a collective goal audience. A Detroit NPS programs staff member stated this when discussing minority-focused efforts of the Motor Cities National Heritage Area:

“‘Here is a service for you to enjoy.’ Getting that message out there is to create that inclusivity...We live in an urban area, minority is the majority situation, so the African American community, Latino community, Asian community need to understand that, because again based on the demographics that's not the group that's being served and drawn to traditional park settings.” (D09)

Other NPS staff echoed this emphasis on particular minorities, such as explicitly stating that there is “strong emphasis” on the Hispanic/Latino population in Tucson as a “target community” to reach because of the large number of residents but “glaring” underrepresentation in visitation to Saguaro National Park (SAGU).

Youth were similarly, and not always separately (e.g., youth of color, diverse school children), mentioned as a target audience for NPS relevance efforts. Indeed, with the NPS’ lauded interpretation and outreach skills, the focus on youth visitation to parks with the “Every Kid in a Park” initiative, and the ability for interested children to convince multi-generational families to visit parks, youth are a natural audience to identify. Based on evidence from two sites, working with teachers to integrate field trips into classroom learning experiences appears crucial to successfully engaging school-age youth. In Tucson, for example, a strong relationship with a local science-centered charter school has created opportunities for youth to conduct research in SAGU, from monitoring saguaro growth to pulling invasive buffelgrass to developing informational material for
the visitor centers. A desire in Boston to be more attuned to the needs of the public school system has led to phrasing of parks as “incredible out-of-class authentic teaching and learning” assets (B11) that “add value to education curriculum” (B08).

In contrast to the sub-communities mentioned by the agency, partner organizations were more apt to emphasize the entire local community as the audience for NPS relevance efforts, echoing the intent of the UA (i.e., “All Americans” within proximity). Because NPS focus has traditionally been on non-locals (i.e., tourists and destination visitors), respondents further elaborated that locals should be valued. Specifically, respondents noted locals should be valued as visitor and stewards of all cultural and natural resources, including but not limited to the NPS’. Although connections to destination visitors are at times easier to build due to the singular nature of their visit and the excitement of first-time engagements, keeping connections fresh (i.e., relevant) with local, repeat-visitation audiences is essential. Some stated that even the language of “visitor” implies tourists rather than locals. This is a distinction that The Freedom Trail in Boston is trying to move beyond, emphasizing the everyday leisure opportunities for locals along the trail. Seeing residents as visitors and stewards is an important broadening of the intended audience beyond destination tourists and a crucial audience with which to build relevance.

3.5.3. Goal defined as NPS or city improvements

The NPS and its formal partners tended to describe goals that relate to improvements in NPS diversity: more diverse visitation, workforce, and sites and stories (Figure 2). The definition of these goals as agency-focused aligns with NPS planning
documents. All three are also directly related to engaging racial/ethnic minorities and youth as audiences. Community partners expressed relevance goals differently, spanning beyond NPS boundaries to improvements for the cityscape. Three overarching goals were prominent: stable systems and infrastructure, functioning biophysical processes, and a strong identity of place (Figure 3). These context-focused goals appear to reflect the UA language of promoting livable cities and communities. This goal aligns with a majority of participants who indicated that for lasting relevance, the NPS should expand its UA to be a “value added” component of larger systems.

**Diverse park visitation.** Agency-focused relevance efforts routinely center on target audiences as visitors in NPS sites. We heard multiple times from NPS staff and formal partners that building the knowledge base about, the excitement for, and ultimately the visitation of NPS sites by racial/ethnic minorities and youth would constitute relevance success for the agency. Honing in on this idea of people in parks is one of the most common ways in which a relevant NPS was depicted. NPS employees remarked that leadership heavily emphasized this goal, making it clear that agency success hinged on “developing that next generation of park visitors and supporters” (T16), particularly diverse park visitors. To this end, particular events have focused on engaging these audiences in-park (e.g., school field trips, Discovery Camps in BOHA, Ironwood Rangers outings in SAGU). In Tucson, for example, an oft-mentioned symbol of success was Hispanic families repeatedly recreating in SAGU, with further success if these families also explored other, more distant NPS sites in their leisure time. Beyond parks, efforts to increase diverse participation in NPS programs on other lands was also
seen as meeting this goal. Canoemobile excursions sponsored by the Rivers and Trails Conservation Assistance program (RTCA) and similar kayak-based initiatives in the waterways of Boston and Detroit offer youth the opportunity to explore the natural resource and stories of the area via a method that few had tried before and participation was seen by agency interviewees as a resounding relevance success. Beyond this, difficulties imagining ways to engage specific populations on non-NPS lands loomed large in all sites, as NPS participants struggled to conjure events that had/could take place on alternate sites and still contribute to NPS visitation.

**Diverse workforce.** A second goal stated by the NPS was to increase the diversity of the NPS workforce. Despite perceived institutional barriers to hiring diverse talent that constrain candidate pools (e.g., “veterans first” policy, local versus national searches), NPS staff, working with partners, have found creative pathways toward a more diverse workforce. Diverse workforce recruitment in Tucson was structured around a partnership program between SAGU, Friends of SAGU, and AmeriCorps VISTA. This program, Next Generation Rangers, provides local young adults, with an emphasis on racial/ethnic minorities, with early-career NPS experiences.

“We focus our recruiting efforts on diverse youth…This is a way that we can actually increase our awareness to diverse audiences because not only are we recruiting and targeting diverse youth, but most of the programs that the Next Generation Rangers are doing are geared towards working with diverse youth or diverse people in the community.” (T03)

Although not technically NPS staff (they are paid through the Friends group), Next Generation Rangers gain on-the-job experiences that may help them be more competitive when positions open in the NPS. Similar programs in Boston tend to focus on high
school-aged children, synchronizing park-based experiences with school curricula. For example, the Green Ambassadors program in Boston Harbor Islands National Recreation Area (BOHA) employs high schoolers in a sequential three-year program to build new generations of NPS staff of diverse racial/ethnic backgrounds.

**Diverse sites and stories.** A third goal of agency-focused relevance is diversifying the sites and stories within the NPS. Although adding sites in Boston or Tucson was rarely mentioned, participants repeatedly emphasized establishing a physical NPS presence in Detroit. By taking ownership of Historic Fort Wayne or creating a Motown-centered park, the NPS would bring new perspectives on history and culture (with emphasis on plurality of narratives and race relations) into the park system. More commonly mentioned in Boston and Tucson was the diversity of NPS sites already within the area, such as a mix of “natural” parks and “cultural” trails. In this way, they offered ways the NPS had been successful in conserving and interpreting a variety of resources. Although new sites with diverse enabling legislation would be welcomed (as long as staffing and other resources were also added), expanding the diversity of stories told at existing sites is likely a more actionable goal for current parks. Much work lies ahead but, again, the leadership’s emphasis on this priority has helped to shorten the distance to this goal. Staff often expressed the belief that the NPS’ mandate on inclusion may be singular within the federal government and that bringing America’s stories to life, in an inclusive way, was well-supported within the agency. Examples of these connecting stories abound in the UA model cities, including Boston’s Patriots of Color (a pamphlet detailing the Revolutionary War contributions of non-White soldiers); Tucson’s
interpretive displays written in English, Spanish, and O’odham (the indigenous tribal language); and Detroit’s evolving story of what Land and Water Conservation Fund (LWCF) sites could mean for supporting positive neighborhood identities post-bankruptcy. All of these efforts to diversify the stories told by the NPS do so by enlisting the assistance of sub-communities.

**Stable Systems and Infrastructure.** Community organizations stated that the NPS could contribute to promoting stable urban systems and infrastructure, particularly through economic and built capital. Civic and community partners often mentioned the economic value of tourist and locals recreating in the city, with NPS sites being a recreation asset (among others, such as museums, science centers, performance arts spaces, historic homes, and other parks). A Detroit community partner stated that the NPS should collaborate with these other recreation assets, and the city more broadly, to promote the economic contribution of parks:

“In the past, [parks] were seen as soft. Now people are understanding more the economic development value, the fact that they’re job creators. They’re just very important to the quality of life…So strike while that iron is hot and continue to build that appreciation for parks.” (D02)

Others mentioned secondary economic benefits of recreation assets to the vibrancy of urban communities and livable cities, such as commercial location desirability, affordable housing, and affordable healthcare. Besides economic capital, participants also emphasized built capital. Cities often need assistance recognizing and providing expertise for the upkeep of valuable infrastructure. Participants mentioned this as an area NPS programs (e.g., National Register of Historic Places, National Historic Landmark Program, National Historic Tax Credits) can contribute to city conservation: assisting in
infrastructure maintenance and community cohesion. This was prominent across cities, but particularly in Detroit where, without a park, more of the discussion on context-focused relevance concerned infrastructure support (e.g., Fort Wayne, original Ford factory, LWCF green spaces). Community partners in Detroit voiced that the NPS could be a city-stabilizing force as Detroit emerges from bankruptcy and reconsiders the character of its cityscape. Strengths and stability NPS programs could bring to livable communities across the cityscape are highlighted in statements such as:

“The built environment is an area where we have a lot of possibility to recreate ourselves differently and thoughtfully. To the extent that the Park Service [is] involved in those conversations, bringing its own depth of experience and history, it would be very positive and would help support that for the city.” (D06)

**Functioning Biophysical Processes.** Many participants indicated that a “relevant NPS” promotes the benefits of both functioning biophysical processes and conserved biophysical environments (e.g., recreation, health, classrooms, learning laboratories, intact ecologies, climate change buffers). Interviewees emphasized that multiple conserved sites and open spaces, beyond one park or jurisdiction, are necessary to contribute to livable places. The Tucson area is ringed by conserved lands (county, state, and federal), including SAGU, that are wild places that have existed for eons and have both intrinsic and anthropogenic value. As an education partner said, “I can't imagine not having that somewhere, or being able to experience that, to go out there. For Tucson, it's hugely important for the quality of our city.” (T01). A consortium of land managers and civic officials planned to construct and staff a Southern Arizona Regional Orientation Center to promote both the area’s unique and fragile ecosystems and its opportunities for
tourism, recreation, and learning. Bringing together entities such as federal agencies, universities, park-associated non-profit organizations, and local stakeholders, this effort exemplifies the NPS as a member of a broader group that promotes contextual goals and strives for relevance beyond the borders of SAGU. The necessary financial bond was ultimately not approved but themes identified and support garnered has propelled revised plans, with the NPS as a part of the larger whole. This idea of a collective system of functioning processes was mentioned in Boston as well, where parks such as BOHA, Castle Island State Park, Boston city parks, and the Rose Fitzgerald Kennedy Greenway offer opportunities for outdoor recreation and learning and a buffer against anticipated rising sea levels. The preservation of these spaces, under various jurisdictions, contribute to functioning biophysical processes that maintain the quality of urban life.

**Strong Identity of Place.** Understanding a place’s history, and including multiple viewpoints in its telling, was a common means of emphasizing that place’s identity. The emphasis on the history and identity of place imbued all interviews in Boston. We heard how Boston’s ties to the American Revolution and ongoing quests for personal freedom were an important piece of city identity and one that the NPS relates well. Park-based programming is complemented by innovative broad scale efforts such as opening a NPS visitor center in Faneuil Hall to increase NPS visibility and setting integration, participation in Revolution 250 (collaborative to commemorate the 250th anniversary of America’s fight for independence), and promoting other Freedom Trail sites. These help embed the NPS further in a community of partners whose goals extend to a citywide narrative of place. Other prominent examples of NPS involvement in expanding Boston’s
narrative of the struggle for freedom beyond America’s independence include the Liberty Tree Project (many communities depicting “freedom” on lanterns hung from the Liberty Tree), the “Roots of Liberty – The Haitian Revolution and The American Civil War” historical pageant, and the Middle Passage Port Markers Project. NPS personnel noted that approaches are increasingly context-focused in their goals, but that resisting an “inward focused” NPS culture and “weaving in the community” remains a struggle: “We see ourselves being here to tell the story of Bunker Hill, protect the Charlestown Navy Yard, and talk about the Revolution, but we aren’t talking about the issues of today and how they may relate back.” (B07) This recognition by the NPS and others indicates an opportunity for expanding on this freedom identity into current events and throughout the city, highlighting an area where urban investment with the UA may help build greater connections for relevance. This opportunity also presents itself in Tucson, where migration and change have always characterized the area and SAGU and the Juan Batista de Anza National Historic Trail (along with narratives in other protected lands, cultural institutions, and community groups) are part of the telling of this ongoing story. In Detroit, where the city has always evolved through dramatic events, the NPS could be part of relating this narrative of change (e.g., interpretation at River Raisin National Battlefield Park, regional support of MotorCities National Heritage Area, conservation of infrastructure within a Detroit NPS unit).

3.6. Discussion

Perspectives on relevance can shape goals and target audiences. Our findings suggest that agency-focused relevance builds on the known strengths of the NPS and
context-focused relevance builds on the external view of community partners eager for the NPS to achieve its own goals while contributing to the larger community. Although the two models are independently functional, they may also viewed as somewhat incomplete; one centers on agency-defined goals and audiences while the other centers on beyond-agency goals and audiences. With each of the two models presenting a different and potentially complementary look at relevance, is it possible to integrate the two perspectives for enhanced relevance?

By identifying audiences and promoting relevance within the NPS context, the agency has built opportunities, and continues to seek further opportunities, for connections that engage specific audiences. This is akin to the “deep engagement” focus of the NPS (McCown & Torres, 2016), where multiple points of connection are repeatedly offered to a target audience. Using the UA guiding principles in an internally-focused manner, building engagements strongly linked to NPS visitation, workforce, and story/site diversity, provides a basis for strong linkages among agency management objectives, indicators, and standards. Perhaps for that reason, these agency-focused relevance descriptions were common in the interviews with NPS staff and official partner groups. Although building these linkages and accessing the goals is by no means an easy task, the parts and processes are relatively well known by NPS staff and actionable. As known areas of opportunity for building engagement and stewardship, the framing of relevance on the two sub-communities of racial/ethnic minorit"es and youth emphasizes how the NPS has internalized the call for further action, where the relevance goal is kept within the bounds of prior NPS experience. This has also been the model presented in
past research (McCown et al., 2011; McCown et al., 2012; McCown & Torres, 2016; Schiavo, 2016). To a certain extent it is natural, and even imperative, to have an agency focus on agency relevance. Without this introspection, that agency may cease to exist. Thus, agency-focused relevance is vital. However, it is also incomplete. Relevance engagements centered only on a particular agency do not address contextual relevance, or relevance across the local area.

To reach a broad, local audience (i.e., All Americans) in relevant ways, participants noted NPS contributions to three main aspects of livable cities and communities: stable systems and infrastructure, functioning biophysical processes, and strong identity of place. Inherent in these aspects was a sense of the NPS contributing to goals larger than the agency. In fact, these goals require the recognition of landscape-level dynamics (e.g., ecological regions, urban populations, collaborative communities). Although this broader set of goals was recognized by the NPS, the focal area of the agency was still primarily parks (and natural resource based parks within those). The inclusion of locals as tourists to enjoy these urban natural areas, and of history in the strong identity of place, both adds dimension to the discussion of urban nature as a destination tourist commodity and bridges the nature-culture divide in a context-relevant manner (Uggla and Olausson 2013). NPS programs are uniquely suited to contribute to these context-relevant goals on a larger scale, as they serve the public beyond park boundaries. More respondents in Detroit mentioned these goals than in Boston or Tucson. Perhaps, unencumbered by a physical park presence, programs in Detroit are having a more tangible and more readily articulated connection to larger city goals. The
opportunity available for the NPS to further address context-relevant goals and audiences was apparent in the phrasing of the UA as “a tool” to contribute to these beyond-agency goals. Participants expressed their hope that the NPS would use the initiative as a directed effort to consider how the NPS fits into larger ideas of relevance.

Considering goals beyond an agency is undoubtedly a difficult task. Correspondingly, much discussion focused on how the NPS interprets these context goals for current park visitor audiences (e.g., interpretive centers, ranger-led programs). Whereas goals that are agency-defined and centered may appear more actionable and familiar terrain, those that encourage contextual consideration could enlarge the NPS’ constituent base further. Context-relevance necessitates collaborative partnerships and power sharing, which has potential for connections with a greater swath of the population. For this reason, the desire of participants to have the UA propel the NPS toward goals that encompass multiple organizations, communities, and processes across the urban landscape is one that the NPS may consider as an emergent opportunity. The initiative is framed in a way that prioritizes collaboration and creative thinking to work toward relevance. Broadening the goals of the UA, and of the NPS presence in urban areas more generally, may be a step toward collaboratively and creatively engaging partners to genuinely build relevance with all Americans, or at least more Americans.

Often, expressions of context-focused relevance were ones of hope that the NPS would take the UA implementation as an opportunity to integrate more with the urban community and expand on partnership connections. In that way, agency-focused relevance may apply mostly to the current conditions and context-focused relevance to
desired future conditions. Many participants voiced enthusiasm for more expansive and context-defined goals. Across the cities, this meant an emphasis on having staff who were able to genuinely engage communities and were afforded the time and resources to do so. Explicitly focusing the UA on relevance to everyone through a culture of collaboration is a welcomed concrete example of this intention.

3.6.1. Integrated Relevance: Relevance for Agency and Context Goals

Reaching local residents requires understanding goals of functioning, livable cities and aligning NPS goals with this beyond-agency context. In this way, NPS efforts, including the UA, can be pathways to goals larger than the agency – goals shared by a number of the local residents as well. Although agency and context-focused models of relevance each highlight strengths of relevance interpretation and perspective, integrating the two models may provide further dimension to relevance pathways.

In an integrated model (Figure 4), we propose that the two types of relevance expressed by participants – agency and context-focused, are compatible and reinforcing. First, the separate agents of the NPS and collaborative partners are instead one community entwined through a culture of collaboration. As the UA explicitly aims to strengthen this collaborative spirit, and examples suggest collaboration is already utilized, embedding the NPS within this collaborative framework integrates the agents. Second, by continuously monitoring what sub-communities are emphasized in NPS efforts, and how the larger whole community can be engaged, the audience can be considered simultaneously both specific and broad groups. Third, situating the goal of NPS diversity within the larger goal of livable cities and communities demonstrates how the agency and
context-focused goals reinforce each other and how the NPS can be “value-added” to the cityscape. When the NPS and its partners value and contribute to both goals, these can be worked toward while still retaining the specificity needed to create meaningful management indicators for these objectives. Furthermore, this integration maintains and expands on connections with the target audiences.

This dual approach resonates with a growing body of research on communicating about climate change as both an agency and context-focused issue by using the park as a medium to propel messages about local impacts (Schweizer, Davis, and Thompson 2013). Thus, this system of functioning pathways would characterize a range of integrated relevance. One might develop a relevance opportunity spectrum that would ask managers to look within-agency and across larger geographies to assess the variety of goals they are striving toward. Because plans, goals, and audiences rarely are confined to one particular linear expression, we sought to explore the presence of bridging concepts between the models of agency and context-relevance. In the interviews, we heard a variety of ways by which NPS diversity and livable cities and communities can be parallel and reinforcing goals. As detailed in Figure 3, well-thought plans such as the UA that promote internal and external connections could be a tool on the pathway toward fulfilling goals of reaching both specific and encompassing populations. In this manner, the NPS may promote not only the relevance of their specific agency, but also their place on a larger landscape and larger communities in general.

For this integrated model to function, we propose that certain bridging concepts must be in place. The absence of such bridging concepts may be considered relevance
inhibitors. In particular, four bridging concepts may be paramount to the functioning of this integrated model and the ability of an agency to strive for relevance on multiple levels. We phrase these concepts as questions for managerial reflection.

- Are we engaging a *breadth of communities*, from the oft-mentioned gaps to the larger audience of all Americans? How are we structuring goals to be of mutual importance to the dynamic urban population?
- Are we providing *layered narratives that transcend singular themes*? How are we building both deep and broad engagement along multidimensional connections?
- Are we embracing *partnerships across the larger conservation community*? How are we reaching broadly for collaborators throughout the model structure, including looking internally for a “beyond parks” mentality that encompasses programs as well?
- Are we examining *alignment between agency and context goals*? How are we monitoring whether the two reinforce each other in a feedback loop?

### 3.7. Limitations and Future Research

In this investigation, we sought perspectives on what relevance entails from multiple perspectives and for multiple goals. As with all research, our approach has limitations. Selection of participants was driven by key NPS contacts for each urban area. As a utilization-focused evaluation of current NPS engagement on the urban landscape, this was appropriate and suited the managers’ needs. We recognize, however, that not all voices and viewpoints are represented. The structure of the study emphasized interviewing current knowledgeable partners with whom the NPS had a positive relationship; certainly other individuals and groups may have different relationships with the NPS and different perspectives on relevance. Furthermore, the selection prioritized NPS voices and gave them disproportionate representation within the participant population across the three cities. We have chosen to present the two most prominent perspectives on relevance models but we recognize that other perspectives were also represented in our data and that perspectives beyond these certainly exist within the fuller
range of organizations in Boston, Tucson, and Detroit. However, by sampling across a spectrum of cases and organizations within these, we aimed to capture a range of perspectives.

Despite these limitations, our research has applicability for the NPS and other conservation agencies in their considerations of relevance. Investigations into the applicability of these models in other NPS sites and for other agencies and contexts may yield other important considerations for multidimensional relevance. Further research may elicit more detail on the models presented and the relative importance of their components. In particular, research on how collaborative communities may aid in embracing multiple expressions of relevance, what are alternate and additive expressions of relevance, how bridging concepts function, and how adaptive changes may contribute to relevance. In considering agency, context, and integrated models of relevance, conservation agencies may work more effectively toward goals that are ever-more relevant to everyone.

3.8. References


Table 2. National Park Service (NPS) presence in case study locations.

<table>
<thead>
<tr>
<th>Type of presence</th>
<th>Urban area</th>
<th>Boston</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Detroit</td>
<td>Tucson</td>
</tr>
<tr>
<td>Parks within the city</td>
<td></td>
<td></td>
</tr>
<tr>
<td>None – River Raisin National Historic Battlefield is the most proximate</td>
<td></td>
<td></td>
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<tr>
<td>Saguaro National Park</td>
<td></td>
<td></td>
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<tr>
<td>Frederick Law Olmsted NHS, John Fitzgerald Kennedy NHS, Longfellow House Washington’s Headquarters NHS, Saugus Iron Works NHS</td>
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<td></td>
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<tr>
<td>Parks adjacent to the city</td>
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<tr>
<td>NHA Program (MotorCities NHA), National Watertrails (Huron River Water Trail), NURNF Program, RTCA Community Assistance Fellows Program, Strong Cities, Strong Communities², DOI PLSW², VISTA²</td>
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<td></td>
</tr>
<tr>
<td>National Trails System (Juan Bautista de Anza NHT), VISTA²</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NHA Program (Essex NHA and Freedom’s Way NHA), National Trails System (Washington-Rochambeau Revolutionary Route NHT), NURNF Program, Groundwork USA, RTCA Community Assistance Fellows Program, Urban Waters Federal Partnership² (Boston/Mystic River), DOI PLSW²</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Programs unique within/adjacent to city</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Programs common across sites</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RTCA, Land and Water Conservation Fund, National Register of Historic Places and National Historic Landmarks, Historic Preservation Fund, Technical Preservation Services, Certified Local Government, National Natural Landmarks, National Historic Tax Credits, Youth Conservation Corps, Public Lands Corps², Every Kid in a Park</td>
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</tr>
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</table>


²Federal interagency programs involving the NPS

Table 3. National Park Service (NPS), community organizations, and overall interviewee characteristics in case study locations.

<table>
<thead>
<tr>
<th></th>
<th>Urban area</th>
<th>Total</th>
</tr>
</thead>
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<tr>
<td></td>
<td>Detroit</td>
<td>Tucson</td>
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<td>NPS Community</td>
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<td>Participants</td>
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<td>Total contacts</td>
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</tr>
<tr>
<td>Response rate</td>
<td>78%</td>
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</tbody>
</table>
Figure 2. Model of National Park Service (NPS) relevance, with agency-focused goals and audiences.

Figure 3. Model of National Park Service (NPS) relevance, with context-focused goals and audiences.
Figure 4. Model National Park Service (NPS) relevance, integrating agency and context-focused goals and audiences.
CHAPTER 4: BROKERS OF RELEVANCE IN PRESENT AND POTENTIAL NATIONAL PARK SERVICE URBAN COLLABORATIVE NETWORKS

Target Journal: *Ecology & Society*

4.1. Abstract

Natural resource agencies are increasingly tasked with furthering relevance with the public, in addition to conserving the natural, cultural, and historic resources in their care. This goal of relevance is imperative to sustain and grow invested stewards of these resources and support for their continued protection. Relevance, however, is not a static goal nor is it achieved through solo efforts. Instead, relevance is continuously pursued in partnership with other organizations sharing similar goals and diverse audiences. Brokers, facilitating relationships within, between, and among groups within collaborative networks, may have a unique role in promoting relevance through their flexible, diverse connections. Relevance can be considered a threshold for resilience: a critical disturbance point when relevance is diminished or extinguished. In anticipation of this threshold, the US National Park Service has established an Urban Agenda, with specific aim toward preparedness resilience and “Relevancy for all Americans.” In this investigation, we conducted a social network analysis in three case Urban Agenda cities (Detroit, Tucson, and Boston) to examine different types of brokerage in collaborative networks and their implications for relevance and resilience. We compared present and potential networks to determine current percent capacities of networks in the three cities, as well as network and triad-specific measures. Our findings suggest that there are specific organizational categories that may be current brokers of relevance as well as potential leverage points...
for further innovation diffusion. In examining these organizational categories and brokerage roles, the National Park Service can strategically, and with foresight, emphasize certain areas for networking development. This investigation also contributes to the methodological application of social network analysis in resilience considerations and how brokerage may be used as one metric of resilience.

Keywords: brokerage, resilience, National Park Service, relevance, social network analysis, urban

4.2. Introduction

4.2.1. Relevance as a Resilience Threshold and Network Goal

“Relevance” is an ideal, elusive state. Despite this seemingly abstract character, it is an imperative goal for resource management agencies such as the National Park Service (NPS) (Diamant 2000; Ferreira 2012; Jarvis 2012; Mitchell et al. 2006). Beyond their obligations to managing and protecting natural and cultural resources, agencies must forge connections with partners and the public, to ensure that resource management programs are considered vital by stakeholders (Keiter 2010b). Because the loss of relevance looms large as a tipping point for the sustained function of these agencies and their related partnership networks, it can be considered a threshold for resilience.

In socio-ecological systems and networks, resilience is the capacity of a system or network to sustain its basic functions when faced with pressure or change (Berkes and Folke 1998; Gunderson and Holling 2002; Newig, Guenther, and Pahl-Wostl 2010; Walker and Salt 2006). Although sudden/abrupt disturbances are commonly considered opportunities of change (i.e., resilience thresholds), incremental/gradual disturbances
such as the eventual rather than instantaneous loss of relevance can be considered a readiness and preparedness (rather than a response and adaptation or recovery/adjustment) resilience threshold (Ponomarov and Holcomb 2009). In readiness and preparedness resilience (i.e., precursor resilience) contexts, potential disturbances are known and may be circumvented through foresight (Boin and van Eeten 2013; Comfort et al. 2001; Foster 1993). Organizations that can pre-emptively address these disturbances, adaptively changing to provide points of engagement with the public, are better suited to sustain momentum toward relevance as a goal instead of a disturbance.

Due to the diffuse, organization-transcending nature of relevance, collaborative networks that share this common goal may be well-positioned to incorporate new, diverse, or more widespread expressions of relevance (Page et al. 2015; Vangen and Huxham 2012). Collaborative networks have increasingly been used as a means to steward natural and cultural resources, especially in parks and protected areas (e.g., (Belaire et al. 2011; Enqvist, Tengo, and Bodin 2014; Hamin 2001; Holman 2008; Kazmierczak 2013). Correspondingly, research on governance of and resource conservation in these park-centric collaborative networks has gained traction, as probing network structure can often provide more detail on adaptive management and knowledge exchange among the diverse actors joined by a resource concern (Bodin, Crona, and Ernstson 2006; Bodin and Prell 2011; Crona and Bodin 2006; Crona and Hubacek 2010). The use of social network analysis (SNA) methods assists in quantitatively examining these structures and their attributes (Butts 2008; Giuffre 2013; Harris 2014; Knoke and Yang 2008). For example, Sandstrom and Rova (2010) found that low density networks around fishery conservation areas in Sweden inhibit management goal definition and,
ultimately, protected area legitimacy. Other work on marine protected areas in Chile has found similar low levels of cohesion, centralization, and density that necessitated the inclusion of additional bridging stakeholders in the network (Francisco Carcamo, Garay-Fluehmann, and Gaymer 2014). In Swiss park collaboratives, Hirschi (2010) found that network structure changed over time to strengthen vertical collaborations while horizontal collaborations remained stagnant. Romolini et al. (2013) contributed to understanding on how environment - geographic location and canopy cover - may influence urban natural resource stewardship networks. Informal structures are important as well, as Prell et al. (2010) found that actors sharing similar perceptions about park management in the UK also share stronger ties within the network and Calvet-Mir et al. (2015) found that low density and in-degree centrality may relate to low trust levels in the park participatory process in Catalonia. Studies such as these have value for informing managers about who should be included in informal networks of park governance processes and discussions, as well as what barriers to inclusion and messaging might be.

What has been lesser detailed, however, is how park-related collaborative networks engage each other to promote shared relevance goals. Shared stewardship of a resource has relied at least partially on the ability to share information. However, sharing audiences to promote the relevance of these resources to people’s everyday lives may be equally important. For example, NPS park “friends groups” (non-profit organizations that assist the managers of public lands with activities such as fundraising and volunteering) and youth-focused organizations (e.g., schools, YMCA, science centers) have coordinated efforts to develop park-based engagement and leadership opportunities for youth (McCown et al. 2011; McCown et al. 2012). NPS National Heritage Areas, public-
private partnerships to integrate environmental, community, and economic objectives at a regional scale, have also coalesced around issues of relevance with these trifold objectives (Laven et al. 2010). These networks may be able to diversify and amplify conservation and engagement messages about the resource or place of concern as well as embed the managing agency more into the community. Without tangible and multifaceted connections, these places may lose the support of the public and ultimately may cease to exist (Jarvis 2012). Thus, collaborative networks centered on the goal of relevance instead of the process of governance is a promising area for research. As actual change in collaborative networks can only be detected in hindsight, when relevance and resilience may have been diminished or extinguished, there is benefit to assessing what current versus future networks may look like. However, studies proactively assessing network structures for enhancing relevance appear sparse.

4.2.2. Brokers’ Role in Facilitating Network Relevance and Resilience

Relationships among actors in a network (i.e., network structure) can both facilitate and hinder resilience. Networks with high degrees of closure, or ties among all the actors within the network, may build trust and strengthen social capital (Hirschi 2010; Wasserman and Faust 1994). These linkages among groups can enhance network communication. Thus, the more ties among actors, especially diverse actors, the more the network may be able to respond adaptively and capitalize on opportunities. Network density and triad composition are important to the efficient use of capital, as information and other resources can generally flow more easily across denser networks than sparse ones (Tortoriello 2015). In this manner, denser networks may be more able to mobilize and respond to opportunities and therefore potentially be more resilient. However, the
more ties among actors, the more homogeneous they become and the more heterogeneity is lost (Burt 1997; Granovetter 1973). This heterogeneity is key for adaptive, creative responses in collaborations, allowing for flexibility of approach (Vangen and Huxham 2012) and its absence may contribute to rigidity, especially in the long-term. Heterogeneity in resilience is important not just for the sharing of novel ideas and approaches, but also as a safeguard against uncertainty (Gallopin 2006; Smit and Wandel 2006). Increased network density suggests less potential available for collaborative growth within the network, as a higher proportion of the possible linkages have already been realized. This increase in structure may detract from the resilience capacity of the network, as formalized linkages may contribute to network rigidity (i.e., less flexible pathways for adaptive change) and conservation (i.e., the culling of perceived redundant ties) (Walker and Salt 2006). The relatively open, heterogeneous structures of the NPS National Heritage Area networks examined by Laven et al. (2010) suggest that these networks’ looser structures are beneficial to coping with the unpredictable and dynamic environments they inhabit but also may inhibit network effectiveness. Hirschi’s 2010 investigation of park-based collaboratives in Switzerland noted the more positive effects of greater cohesion yet still acknowledges this tension; a network’s adaptability hangs in the balance of these structures.

Examining the role of brokers more precisely may lend nuance to understanding this threshold. Brokers, or the middle agent in a triad, hold the ability to facilitate a range of bonds (ties within their group) and bridges (ties to other groups) (Stovel and Shaw 2012). Their ability to connect different types and scales of collaborators for the management of natural resource issues is important but sometimes lacking (Ernstson et
al. 2010). For example, a collection of green spaces in Stockholm lacking mid-scale managers to transcend geographical differences could have more effectual and inclusive governance processes if scale-crossing brokers were able to navigate these differences (Ernstson et al. 2010). Although brokerage is defined at the actor-tie level (Totterdell, Holman, and Hukin 2008), summations of brokers at the group level has provided insight in other contexts (Long, Cunningham, and Braithwaite 2013; Stovel and Shaw 2012). Manring (2007) contends that net-brokers are groups that may facilitate, coordinate, and promote entrepreneurism, among other capacities, relationships within a network and Stovel and Shaw (2012) promote brokers as the group central to shaping social integration processes.

Brokers may be defined in multiple ways. Simply, they are intermediaries who span gaps in social structures to connect otherwise unconnected actors (Burt 1997; Stovel and Shaw 2012). Although measures of transitivity and tie directionality within a triad can identify brokers indirectly (Aviv, Erlich, and Ravid 2005; Faust 2010; Laven et al. 2010; Scott 2013; Spiro, Acton, and Butts 2013), brokers as a collection of actors require a more explicit focus (Everett and Valente 2016; Stovel and Shaw 2012). Gould and Fernandez (1989) offer a typology of the five possible types of positions brokers can have based on group membership (Table 4), known as G&F brokerage roles. Given the categorization of actors into groups by a particular attribute (e.g., organization, zip code, supervisory status), G&F brokerage roles can identify the prevalence of brokers facilitating within-group (Coordinator), between-group (Gatekeeper, Representative, and Consultant/Itinerant), and among-group (Liaison) relationships. G&F brokerage roles have been examined in contexts as diverse as motivations for building relationships
across Jewish-, Arab-, and Druze-Israeli communities (Kalish 2008); the influence of the European Commission on multi-scale governance interactions (Borras 2007); and comic book industry publishing relationships (Boari and Riboldazzi 2014), yet it appears to have drawn less focus in natural resource or park management. Inherent in these studies’ findings is that brokers have a crucial role in facilitating innovation and connections among network actors and groups. Thus, they may be crucial vehicles for the identification of common audiences and common relevance goals to enhance network resilience.

Despite the connections between brokerage and resilience, few studies have examined this linkage. More often, investigations center on binary group membership and the presence of dyads within or between groups (e.g., (Harrison, Montgomery, and Bliss 2016) rather than broker and triad composition. A few notable and current examples suggest fruitful lines of further inquiry. Brokerage and resilience has been explored in dairy farmer networks in Malawi (Chindime, Kibwika, and Chagunda 2016), groundwater citizen science networks in New England (Thornton and Leahy 2012), government-NGO-locals communications regarding rainfall monitoring in Niger (Boyd et al. 2013), and power distribution in climate policy networks in Indonesia (Moeliono et al. 2014). These investigations, however, all center on individual brokers, rather than brokers as a fluid group with various and overlapping functions (e.g., a group facilitating network flexibility and innovation pathways by assuming a Coordinator role at times and Gatekeeper or Liaison at others).
4.2.3. The U.S. National Park Service’s Urban Agenda

To better connect local populations with NPS parks and programs, the agency embarked on an Urban Agenda in 2015 (NPS Stewardship Institute 2015). This Agenda, a centennial effort, aims toward three interrelated goals. The overarching goal is “Relevancy for all Americans,” or finding ways in which the NPS may be a more useful and integrated component of people’s daily lives. A second goal, “Building a culture of collaboration,” is a process by which to strive for relevance. In this, the NPS seeks to expand its partnership networks so as to find common areas of relevance goal definition with other organizations and thus, with their constituents. The NPS has used a typology as a means of considering the organizational landscape and discerning who may be a valuable connection for relevance efforts. This typology has eight categories: Economic vitality, Educational opportunities, Health, Historic preservation, Outdoor recreation, Sustainability, Urban design, and Youth. A third goal is on the organizational level, “Activating OneNPS,” and relates to building an internal culture of collaboration to better meet the external needs of partners and the public.

The Urban Agenda, with associated resources for its success, was piloted in 10 diverse urban areas in 2015-2017. In each of these cities, an urban liaison, the NPS Urban Fellow, had been hired in summer 2015 as a convener and promoter of NPS urban relevance networks and efforts. This person was considered a networking leader (Eglene, Dawes, and Schneider 2007) and hired in part because of this capacity. An affiliated NPS Site Host (the “local champion” of the NPS urban effort) supported the Urban Fellow’s work and together they were knowledgeable about the city characteristics, NPS presence, and key contacts.
The study areas chosen for this investigation represent three levels on an aggregating spectrum of NPS physical presence (i.e., park/parks). First, in many cities, the NPS has a programmatic presence within the city and parks more than an hour’s drive from the city; Detroit, Michigan, represents this level of presence. Second, in a subset of these cities, the NPS also has a park adjacent to the city; Tucson, Arizona, represents this level of presence. Third, in a subset of this subset of cities, the NPS also has a park within the city; Boston, Massachusetts, represents this level of presence.

4.3. Research Questions

To examine what network brokerage roles may suggest about enhancing the urban relevance and collaborative resilience of the NPS, we focused this investigation on comparisons of present (i.e., current or established) and potential (i.e., planned or possible) NPS ego-centric collaborative networks. Broadly speaking, this work aims to contribute understanding to a) areas for targeted managerial networking for enhanced relevance and b) theoretical discussion of network attributes for enhanced resilience. In particular, our work was guided by the following questions:

1. What characteristics of present networks of NPS urban collaborations are common or unique across sites?
2. What characteristics of potential networks of NPS urban collaborations are common or unique across sites?
3. What does the comparison of present to potential networks of NPS urban collaborations suggest about areas for enhancing relevance in the sites?
4. What does the comparison of present to potential networks of NPS urban collaborations suggest about relative states of resilience in the sites?

4.4. Methods

4.4.1. Data Collection

List membership in Detroit, Tucson, and Boston centered on a core question from the researchers: *Who have you been in contact with about the NPS Urban Agenda with*
the intention of enhancing relevance? Two NPS staff members in each city (the Urban Fellow and Site Host) supplied the roster list for the SNA in spring 2016. Lists for each city were consolidated so that each organization or office was represented only once (i.e., duplicate contacts were consolidated). The level of specificity used by the compilers was considered important contextual information. Therefore, some organizations might only be represented by one contact (e.g., state department of natural resources) whereas others might be represented by multiple contacts, each representing a specific office within the organization (e.g., state department of natural resources – recreation division, state department of natural resources – planning division). Henceforth, the term “organization” is used to encompass all types of contacts. The lists contained community organizations, business ventures, civic agencies, elected officials, tribal nations, and NPS parks/programs/offices. The list compilers also supplied attribute data for each organization/contact. Germaine to this investigation was the attribute of which of the eight NPS Urban Agenda categories (NPS Stewardship Institute 2015) the compilers felt the organization best represented. Working with the Urban Fellows and their provided lists, “Historic preservation” was broadened to “Cultural resources” to better represent the range of organizations in that category and a ninth category of “Diversity inclusion” was created to capture organizations listed with this primary focus.

A quantitative SNA activity was conducted in May – September, 2016. Potential participants were contacted by email and conducted a city-specific SNA activity via an interactive Internet-based format, with the lead researcher on the phone to give directions and answer questions. Respondents were asked to indicate whether or not they had a working relationship with the other organizations identified by their Urban Fellow. If
they did not have a current relationship, they were asked to indicate “No current relationship and DO consider a potential partner” or “No current relationship and DO NOT consider a potential partner”. An option was also provided for “Not familiar enough to place in any other box” for if the respondent was unsure about or did not know the organization in question. The overall response rate was 93%, with Detroit at 90% (71/79), Tucson at 94% (75/80), and Boston at 97% (37/38).

4.4.2. Data Analysis

Data were coded in a one-mode, binary matrix, analyzed in UCINET 6.2, and graphed in NetDraw (Borgatti, Everett, and Freeman 2002). Present network was defined as presence of a current relationship. Potential network was defined as all current relationships plus those in the “No current relationship and DO consider a potential partner” response box. To examine network-level characteristics, we analyzed a selection of applicable descriptive statistics for the present and potential networks in each of the three sites (i.e., six total networks). We used the actor co-variate of primary Urban Agenda category (nine categories) to categorize actors (i.e., organizations) and thus the triad relationship attribute of one of the five G&F brokerage roles (Table 4). Two types of triads were considered in this investigation: intransitive two-path (i.e., an “open” triad with two of the three ties realized) and transitive triads (i.e., a “closed” triad with all three ties realized). Henceforth, “triad” refers to the two types considered. Transitive triads were included in the G&F brokerage roles to not exclude any brokers based on the relationships between their contacts. For both types, brokers are the middle actor with ties to the other two actors in the triad. G&F brokerage roles are determined at this individual level. In this examination, to extrapolate to the group level of the six networks, we
determined the average number of G&F brokerage roles for each group. This average was calculated by dividing the total number of role-specific triads within a group by the number of members in that group. This also helped account for the disparate sizes of group membership. Another means of standardizing brokerage is to use UCINET’s relative brokerage values. In this measure, each G&F brokerage value is normalized by dividing it by the randomized expected brokerage value for each role. This strategy is still at the individual level and was not appropriate for comparing present to potential networks (i.e., the same site was affected by different randomization values for each network within that site). For this comparison, we examined the difference between average present and potential G&F brokerage role values for each group. In this manner, we report the percent capacity of each present network as a ratio of its potential network.

4.5. Results

Roster lists compiled by the NPS varied in their composition across the three sites (Table 5). In Detroit (N=79), the largest group was Sustainability (20.3%), followed by Economic vitality and Outdoor recreation (each 17.7%). There were no Health organizations. In Tucson (N=80), Economic vitality accounted for 22.5% of the network, followed by Cultural resources (18.8%) and Sustainability (12.5%). In Boston (N=39), Cultural resources was the largest group (44.7%), followed by Sustainability (18.4%) and Outdoor recreation (13.2%). There were no Economic vitality organizations.

Network-level descriptive statistics showed similarities across sites, despite differences in network size and composition. These results are displayed in Table 6, and a few illustrative statistics are summarized here. Network density averaged 32.9-38.1% in present networks and increased to 55.5-66.1% in potential networks. In Detroit, each
organization was connected, on average, to 25.7 others, with potential to connect to 43.3 (68% increase). The average degree in Tucson was 30.1 (present) and 52.2 (potential) (74% increase) and in Boston was 14.0 (present) and 24.2 (potential) (73% increase).

About half of each present network had centralization features, which decreases slightly as potential contacts are also considered. Levels of connectedness and fragmentation are both relatively similar and stagnant across sites and present/potential networks. Closure was 56.6-58.4% in present networks and 74.3-79.1% in potential networks. Transitivity ranged from 27.6-37.8% in present networks, increasing to 41.0-44.5% in potential networks. Triads proportions provide a sense of the tie directionality. Specific measures varied, but in general intransitive triplets represented 32.9-37.4% of triads in present networks and 47.7-52.7% of triads in potential networks and transitive triplets represented 13.5-20.0% of triads in present networks and 36.6-40.3% of triads in potential networks.

Table 7 depicts these intransitive and transitive triads by G&F brokerage role (Table 4) and organizational category for present and potential networks in the three sites. A couple of key findings are highlighted here. In Detroit and Tucson, each with their own network and groups composition, the average number of triads with Liaison brokerage is much higher (generally two to six times higher) than any other triad G&F brokerage role. A similar pattern is seen in Boston, except for Cultural Resources, where the Representative role is largest. In Detroit and Tucson present and potential networks, the role with the least representation is the Coordinator role (with the exception of Economic vitality in Tucson’s present network, where Consultant is lowest). Because only three of the nine groups in Boston have sufficient membership for the Coordinator role, this
pattern does not hold in general for this site. Two of these three groups, however, do exhibit this pattern, with Cultural resources being a notable exception across present and potential networks.

To compare across present and potential networks, as well as sites, Table 8 lists the ratio of triads for each role in present to potential networks to examine the percent capacity of the present networks. A high percentage indicates that there are few to no additional relationships possible for a group (i.e., low potential for growth) whereas a low percentage indicates many additional relationships possible for that group (i.e., high potential for growth). To facilitate interpretation, this summary discusses the results in terms of quartiles of percent capacity. In Detroit, the lowest (<25%) percent capacities are in all roles for Diversity inclusion. In Tucson, the lowest percent capacities are also in Diversity inclusion roles, with the addition of Coordinator, Gatekeeper, and Representative roles for Urban design. In Boston, the lowest percent capacities are in the Consultant and Liaison roles rather than in particular organizational categories. The majority of brokerage roles are at medium-low (25-50%) percent capacities in all three cities, with Detroit’s Economic vitality, Tucson’s Education and Cultural resources, and Boston’s Cultural resources characterized exclusively by this range. Medium-high (50-75%) and high (>75%) percent capacities in Detroit appear across most organizational categories’ Coordinator roles and into others for Education, Sustainability, and Urban design. In Tucson, these medium-high and high percent capacities also appear most frequently in the Coordinator role across organizational categories, and into others for Economic vitality, Health, and Youth. In Boston, where most groups are comprised of one or two members, medium-high and high percent capacities are seen in Gatekeeper roles.
and Representative roles and, notably, for all Outdoor recreation brokerage roles. The overall distribution of these quartiles is shown in Figure 5 (Detroit), Figure 6 (Tucson), and Figure 7 (Boston), illustrating the distribution of percent capacity quartiles by organizational category across the present network in each city.

### 4.6. Discussion

Our investigation focused on brokerage roles in triads, aggregated at the organizational category level. In this way, we have considered individual and group characteristics that may influence the relevance and resilience of NPS urban networks. Prell et al. (2010) found in their work that informal structures – who regularly speaks to whom – were more explanatory of perspective on park management than other attributes such as organizational category. Our approach delves into this notion of informal structure through brokerage types (rather than one measure of transitivity or centralization) while also recognizing that organizational category is a practical means of assessing the cityscape composition.

Results of this investigation suggest that there is both opportunity to capitalize on present connections within and among groups and to target efforts for facilitating more connections to enhance the relevance of the NPS. By acknowledging present network structure and considering which organizational categories are represented across the collaborative networks, the NPS can tailor communications and outreach efforts to complement missions of these organizations and thus aim toward common relevance goals. In this respect, our results corroborate the findings of Laven et al. (2010) examining points of entry for further collaborative networking in NPS National Heritage Areas and where the NPS can facilitate networking for cross-fertilization. For example,
the NPS may consider working with Cultural resources organizations to highlight ways in which each contributes to both preserving past stories and enhancing current residents’ local pride in place. Beyond present structure, facilitating connections among organizational categories at lower percent capacity would be a value-added contribution of the NPS to these informal networks and thus may promote the relevance of the NPS on two levels: to organizations and to locals. Because Diversity inclusion organizations, a category generated from the Urban Fellow’s work and a group relatively new to these three NPS networks, indicated across the three cities that they would like to be better integrated into the extant NPS collaborative network, this particular area may be rich for efficient use of efforts.

Although one indicator of resilience is not sufficient in determining the overall resilience of a system, this investigation on brokerage shows two ways in which this indicator can affect resilience. First, working with organizational categories that presently are networked to others through a variety of G&F brokerage roles (Table 7) can effectively identify areas of enhanced impact. Because these organizational categories exhibit flexibility in the ways they connect others (within, between, and among groups), they have unique capacity to channel information among the most variety of groups and thus act as creative agents who are exposed to a variety of ideas on enhancing relevance. These categories depend on the site but generally include Economic vitality, Cultural resources, Outdoor recreation, and Sustainability. As also found in the study on urban green space governance by Ernstson et al. (2010), the brokers in these NPS urban networks may be seen as agents for decentralized social learning among groups. With the additional detail provided by brokerage roles, a more detailed understanding of the
flexibility that brokers add to network adaptive capacity is better understood. A longitudinal study by Belso-Martinez et al. (2017) on Spanish foodstuffs industries found that only the Coordinator role substantially gained representation over a five year period. Comparing the variety of G&F brokerage roles in the present and potential NPS urban networks to a future actualized NPS urban networks could provide further information on whether particular G&F brokerage roles are disproportionately favored in this context as well. Our approach and findings preliminarily suggest that proactively examining brokerage roles with the intention of preserving role diversity may enhance representation of all five brokerage roles.

Second, working with groups that are at a relatively low percent capacities for any/all of their brokerage roles (Table 8) can focus efforts on those who have an enthusiasm for growth and a potential entrepreneurial spirit that characterizes the development phase of the adaptive change cycle (Gunderson and Holling 2002; Walker and Salt 2006). Because some G&F brokerage roles are less utilized today, but with the enthusiasm for their use tomorrow, these are specific areas where resilience capacity can be enhanced. For example, with few exceptions, the roles of Consultant and Liaison are at lower percent capacities, indicating room for growth. To foster resilience, actionable steps may be to invite one or two different groups into each quarterly intra-group meetings to forge these connections on a subnetwork level. At the nexus of these two considerations are the subset of organizations who may harbor the most capacity to sustain a resilient network for relevance: those who are currently connected across a range of brokerage roles and see potential for further connections. As Figures 4-7 show, these individual organizations are the ones that are most central to the network structure
and have the lowest percent capacity (largest actor size). For both of these points on resilience, however, it is important to periodically consider the tradeoffs between heterogeneity of connections and brokerage roles with the homophily and lack of defined role that each may foster (Burt 1997).

Network size and composition may also contribute to resilience. Newig et al. (2010) posit that larger networks tend to be more resilient, as actors leaving the system can more easily be replaced with others. In this measure, we may see a difference among the three cities studied. Although premature to assess Boston’s resilience in comparison to the other two cities, the city’s network on its own illustrates features of a less resilient network. Boston’s network is comparatively smaller, and has fewer membership in each group, than Detroit’s or Tucson’s. Only three of the nine organizational categories had enough members to assess all five G&F brokerage roles. Furthermore, the network composition was highly centralized toward Cultural resources, which, as a group, comprised 44.7% of the network’s actors. Although not uniformly high, many of the organizational categories are already at higher percent capacities. Taken together, these measures may indicate that Boston’s network has already been reduced through conservation measures to pare off redundant partners. Indeed, the Urban Fellow for Boston was the only one of the three studied who had already been on-site in the NPS before the Urban Agenda, and had been for more than 20 years. Over this time, a close network of representatives from key areas may have formed. This presents opportunities, as resources and capital such as trust are easier to coalesce with this known network. It also presents challenges, as seeking diverse viewpoints (within or among groups) is harder with these few members. Considering the network size and composition may
infuse the collaboratives with these diverse viewpoints to suggest further pathways and audiences, assisting in resilience and relevance capacity-building.

Comparing the present to the potential network can also help shape a more realistic, proactive, and contextualized understanding of effective maximum network density. Whereas density is routinely measured and described on a 0.0-1.0 scale, it is perhaps imprudent to consider that these end points are always applicable. Some organizations may always be in communication with others and not all organizations will always be in communication with all others. Considering the potential network as a measure of effective maximum density, or the highest number of ties that are plausible given organization’s missions and scopes, can assist in establishing what a rigid or highly structure-bound network could look like. In considering only additive ties, and not ones that would be redundantly pared off as others are created, this effective maximum density measure is probably still a higher maximum than will empirically play out, but it is definitely more contextually-sensitive than the absolute maximum density. For example, the potential network density in Detroit is 0.555, far short of 1.0. If we considered 1.0 to be a maximum threshold, we may neglect resilience considerations and conservation tactics that may occur well before this point. In this regard, we can discuss this particular network in Detroit as presently being at 59.3% of its effective maximum density (with Tucson at 57.6% and Boston at 57.8%), which has different ramifications than solely considering the present density of 0.329. These present-potential density comparisons allow for consideration of the relative rather than absolute proportion of relationships that have been actualized already. Considering that this proportion in all three cities is just shy of 60%, it appears that the majority of wanted connections out of the possible
connections have already been realized and that further engagements may be best focused on targeted rather than broad networking attempts, introducing new organizations into the informal structure, and preserving ties perceived to be redundant. All of these actions can aid in enhancing the relevance of the NPS with these organizations (and thus, hopefully, with greater numbers of Americans) while promoting sustainable network growth.

As with all research, this investigation has limitations. The organizational categories used were intended to be of managerial utility. Thus, we grouped actors by the categories used in the Urban Agenda and by the NPS in each site. It should be noted that these categories are not necessarily discrete and that interpretations of actor placement in one primary category may vary by roster list compiler or specific contact’s branch/position within an organization. In our roster list compilation tactics, we repeatedly engaged the Urban Fellow in each city and asked them to be as exhaustive as possible in their considerations. Therefore, although the investigation may differ depending on organizational category (or the use of another organizational attribute entirely), this was the most logical and grounded approach for this research. Another issue may be with the averaging of brokerage role across a group, which may unduly give an impression of parity across a group. It is assumed that density measures for the entire network are meaningful at the group level as well, but this may require further investigation, as density may impact performance differentially among groups. Inherent in this assumption is the need to further research the role of differential power among actors and among groups within an informal collaborative network. Finally, this approach may be underestimating the densities of relationships and brokerage roles because of non-
respondents. However, our high response rate indicates that the vast majority of the network’s interactions were accounted for in our methods.

4.7. Conclusion

This investigation explored the prevalence of brokerage roles across present and potential NPS urban collaborative networks and what these rates of prevalence may suggest about capacity for relevance and resilience. As relevance is an ever-over-the-horizon goal and resilience is contingent upon multiple interactions in complex, dynamic settings, probing brokerage as a potential indicator of both is a means to ground these concepts in tangible measures. The flexibility of organizations and organizational categories to assume different types of brokerage may hint at their collaborative resilience and ability to exploit new niches and opportunities. Our work suggests that a variety of organizational categories, flexibility of connection through different G&F brokerage roles, and low to moderate percent capacities of brokerage potential may contribute to greater network resilience and NPS relevance.

Stovel et al. (2011) contend that brokers are a fragile group, as they are in demand by others but also compromised by their third-wheel presence. How, then, can the role of brokerage be supported in ways to strengthen relevance and resilience? Although participants in our study were quick to recommend that a central network facilitator (i.e., the Urban Fellow) should embody the role of broker leader, solutions are obviously more nuanced and dispersed. We recommend that proactively recognizing the percent capacity of brokers is one means of shoring up brokerage stability. Investigations of resilience that examine the structure of relationships often require two time points at adequate interval. In this sense, research assessing resilience tends to be retroactive. Examinations on how
present and potential structure of relationships compare may be more contextually
sensitive and appropriate for directing efforts for increasing, sustaining, or paring back
brokerage.

Urban Fellows have built diverse networks with a variety of organizations that are
differentially engaged with each other. Those who are tied to many organizations are
probably ones who are the “usual suspects” for NPS involvement and as such may be
reliable purveyors of information within and across groups. As it is important in
relevance considerations to not neglect the base, it will be important to continue to
engage these groups moving forward. However, stopping at these groups is not enough.

Those who are currently not tied to many of the other NPS contacts might be
groups in which the NPS could extend its relevance mission. These might be groups that
have been traditionally not focused on in the past in NPS networking and therefore are
not connected to the same players that the NPS is. Undoubtedly, they have their own
networks that may stretch into as-of-yet unconsidered areas of the city. Therefore, these
groups may be especially good focal points for efforts to extend networks in the fringes
of the NPS terrain. To do so, tailoring communications about the areas of shared goals
and potential synergies is imperative. This is sometimes more difficult than with those
who are in known capacity roles or with established, familiar connections to the NPS and
its mission. However, if taking enhanced relevance with all Americans seriously, these
are the types of community groups with which ties should be forged and deepened.
4.8. Literature Cited


Kazmierczak, A., 2013. The contribution of local parks to neighbourhood social ties. Landscape and Urban Planning 109, 31–44. doi:10.1016/j.landurbplan.2012.05.007


NPS Stewardship Institute, 2015. Urban Agenda: Call to action initiative.


Table 4. Gould and Fernandez (G&F) brokerage role descriptions.

<table>
<thead>
<tr>
<th>G&amp;F brokerage role</th>
<th>Role description</th>
<th>Triad composition</th>
<th>Source</th>
<th>Broker</th>
<th>Recipient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coordinator</td>
<td>All actors belong to the same group</td>
<td></td>
<td>A</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Gatekeeper</td>
<td>Source belongs to a different group</td>
<td></td>
<td>B</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Representative</td>
<td>Recipient belongs to a different group</td>
<td></td>
<td>A</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>Consultant/Itinerant</td>
<td>Broker belongs to a different group</td>
<td></td>
<td>B</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>Liaison</td>
<td>All actors belong to different groups</td>
<td></td>
<td>B</td>
<td>A</td>
<td>C</td>
</tr>
</tbody>
</table>

Table 5. NPS Urban Agenda organizational categories by percent of roster list for each site.

<table>
<thead>
<tr>
<th>Category</th>
<th>Detroit (N=79)</th>
<th>Tucson (N=80)</th>
<th>Boston (N=39)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic vitality</td>
<td>17.7</td>
<td>22.5</td>
<td>†</td>
</tr>
<tr>
<td>Education</td>
<td>7.6</td>
<td>11.3</td>
<td>5.3</td>
</tr>
<tr>
<td>Health</td>
<td>†</td>
<td>5.0</td>
<td>2.6</td>
</tr>
<tr>
<td>Cultural resources</td>
<td>16.5</td>
<td>18.8</td>
<td>44.7</td>
</tr>
<tr>
<td>Outdoor recreation</td>
<td>17.7</td>
<td>7.5</td>
<td>13.2</td>
</tr>
<tr>
<td>Sustainability</td>
<td>20.3</td>
<td>12.5</td>
<td>18.4</td>
</tr>
<tr>
<td>Urban design</td>
<td>7.6</td>
<td>7.5</td>
<td>5.3</td>
</tr>
<tr>
<td>Youth</td>
<td>8.9</td>
<td>5.0</td>
<td>5.3</td>
</tr>
<tr>
<td>Diversity inclusion</td>
<td>3.8</td>
<td>10.0</td>
<td>5.3</td>
</tr>
</tbody>
</table>

†No group members

Table 6. Descriptive statistics for present and potential NPS urban collaborative networks in each site.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Detroit Present</th>
<th>Potential</th>
<th>Tucson Present</th>
<th>Potential</th>
<th>Boston Present</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>0.329</td>
<td>0.555</td>
<td>0.381</td>
<td>0.661</td>
<td>0.378</td>
<td>0.654</td>
</tr>
<tr>
<td>Average degree</td>
<td>25.696</td>
<td>43.266</td>
<td>30.087</td>
<td>52.213</td>
<td>13.974</td>
<td>24.211</td>
</tr>
<tr>
<td>Degree centralization</td>
<td>0.517</td>
<td>0.457</td>
<td>0.505</td>
<td>0.348</td>
<td>0.486</td>
<td>0.365</td>
</tr>
<tr>
<td>Out-centralization</td>
<td>0.510</td>
<td>0.451</td>
<td>0.499</td>
<td>0.343</td>
<td>0.473</td>
<td>0.355</td>
</tr>
<tr>
<td>In-centralization</td>
<td>0.368</td>
<td>0.282</td>
<td>0.358</td>
<td>0.266</td>
<td>0.362</td>
<td>0.272</td>
</tr>
<tr>
<td>Connectedness</td>
<td>0.886</td>
<td>0.886</td>
<td>0.926</td>
<td>0.938</td>
<td>0.947</td>
<td>0.974</td>
</tr>
<tr>
<td>Fragmentation</td>
<td>0.114</td>
<td>0.114</td>
<td>0.074</td>
<td>0.063</td>
<td>0.053</td>
<td>0.026</td>
</tr>
<tr>
<td>Closure</td>
<td>0.570</td>
<td>0.743</td>
<td>0.584</td>
<td>0.791</td>
<td>0.566</td>
<td>0.756</td>
</tr>
<tr>
<td>Average distance</td>
<td>1.671</td>
<td>1.375</td>
<td>1.605</td>
<td>1.295</td>
<td>1.634</td>
<td>1.328</td>
</tr>
<tr>
<td>Cliques (≥3 members, weak ties)</td>
<td>3.545</td>
<td>10.809</td>
<td>5.401</td>
<td>69.851</td>
<td>172</td>
<td>872</td>
</tr>
<tr>
<td>Transitivity</td>
<td>0.378</td>
<td>0.441</td>
<td>0.306</td>
<td>0.445</td>
<td>0.276</td>
<td>0.410</td>
</tr>
<tr>
<td>Empty subgraph</td>
<td>0.103</td>
<td>0.012</td>
<td>0.100</td>
<td>0.006</td>
<td>0.097</td>
<td>0.002</td>
</tr>
<tr>
<td>Single directed edge</td>
<td>0.141</td>
<td>0.039</td>
<td>0.145</td>
<td>0.024</td>
<td>0.183</td>
<td>0.022</td>
</tr>
<tr>
<td>Single mutual tie</td>
<td>0.097</td>
<td>0.036</td>
<td>0.129</td>
<td>0.030</td>
<td>0.156</td>
<td>0.040</td>
</tr>
<tr>
<td>Out two-star</td>
<td>0.105</td>
<td>0.042</td>
<td>0.063</td>
<td>0.020</td>
<td>0.040</td>
<td>0.024</td>
</tr>
<tr>
<td>In two-star</td>
<td>0.027</td>
<td>0.017</td>
<td>0.024</td>
<td>0.014</td>
<td>0.035</td>
<td>0.017</td>
</tr>
<tr>
<td>All intransitive triplets</td>
<td>0.329</td>
<td>0.477</td>
<td>0.374</td>
<td>0.503</td>
<td>0.354</td>
<td>0.527</td>
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<tr>
<td>-- Intransitive two path</td>
<td>0.029</td>
<td>0.019</td>
<td>0.029</td>
<td>0.012</td>
<td>0.047</td>
<td>0.020</td>
</tr>
<tr>
<td>All transitive triplets</td>
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<td>0.376</td>
<td>0.165</td>
<td>0.403</td>
<td>0.135</td>
<td>0.366</td>
</tr>
<tr>
<td>-- Complete subgraph</td>
<td>0.032</td>
<td>0.147</td>
<td>0.051</td>
<td>0.232</td>
<td>0.034</td>
<td>0.162</td>
</tr>
</tbody>
</table>
Table 7. Average number of triads for each G&F brokerage role by organizational category in present and potential NPS urban collaborative networks in each site.

<table>
<thead>
<tr>
<th>City and network</th>
<th>G&amp;F brokerage role</th>
<th>Economic vitality</th>
<th>Education</th>
<th>Health</th>
<th>Cultural resources</th>
<th>Outdoor recreation</th>
<th>Sustainability</th>
<th>Urban design</th>
<th>Youth</th>
<th>Diversity inclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detroit Present</td>
<td>Coordinator</td>
<td>22.8</td>
<td>5.2</td>
<td>†</td>
<td>54.7</td>
<td>46.4</td>
<td>35.8</td>
<td>4.5</td>
<td>11.0</td>
<td>0.3</td>
</tr>
<tr>
<td></td>
<td>Gatekeeper</td>
<td>114.0</td>
<td>80.7</td>
<td>†</td>
<td>110.6</td>
<td>172.1</td>
<td>118.2</td>
<td>90.3</td>
<td>65.3</td>
<td>20.3</td>
</tr>
<tr>
<td></td>
<td>Representative</td>
<td>65.9</td>
<td>52.3</td>
<td>†</td>
<td>213.0</td>
<td>161.5</td>
<td>136.1</td>
<td>54.5</td>
<td>75.1</td>
<td>14.7</td>
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<tr>
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<td>Consultant</td>
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<td>90.8</td>
<td>†</td>
<td>84.2</td>
<td>107.7</td>
<td>76.6</td>
<td>156.3</td>
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<td>65.0</td>
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<td>Liaison</td>
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<td>526.2</td>
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<td>717.8</td>
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<td>Coordinator</td>
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<td>7.8</td>
<td>†</td>
<td>98.7</td>
<td>90.0</td>
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<td>8.8</td>
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<td>139.7</td>
<td>†</td>
<td>304.1</td>
<td>380.6</td>
<td>282.5</td>
<td>161.2</td>
<td>164.7</td>
<td>80.0</td>
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<td>96.7</td>
<td>†</td>
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<td>416.3</td>
<td>241.6</td>
<td>124.3</td>
<td>166.3</td>
<td>90.7</td>
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<td></td>
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<td>215.8</td>
<td>†</td>
<td>217.2</td>
<td>273.1</td>
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<td>312.7</td>
<td>209.7</td>
<td>275.3</td>
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<td>1535.7</td>
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<td>Coordinator</td>
<td>133.3</td>
<td>10.2</td>
<td>6.0</td>
<td>45.5</td>
<td>7.0</td>
<td>30.9</td>
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<td>4.3</td>
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<td>117.0</td>
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<td>482.7</td>
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<td>†</td>
<td>†</td>
<td>†</td>
<td>†</td>
<td>†</td>
<td>†</td>
<td>†</td>
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<td>†</td>
<td>†</td>
<td>†</td>
<td>†</td>
<td>†</td>
<td>†</td>
</tr>
</tbody>
</table>

† No group members; ‡ Group of ≤2 members cannot be Coordinators; § Group of 1 member cannot be Gatekeepers or Representatives
Table 8. Percent capacity (%) in G&F brokerage roles for each organizational category in NPS urban collaborative networks in each site.

<table>
<thead>
<tr>
<th>City</th>
<th>G&amp;F brokerage role</th>
<th>Organizational category</th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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<tbody>
<tr>
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<td>Economic vitality</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Detroit</td>
<td>Coordinator</td>
<td>44.9</td>
<td>66.0</td>
<td>†</td>
<td>55.4</td>
<td>51.6</td>
<td>60.0</td>
<td>50.9</td>
<td>62.1</td>
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<td>57.8</td>
<td>†</td>
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<td>41.8</td>
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<td>39.6</td>
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<td>28.9</td>
<td>54.1</td>
<td>†</td>
<td>46.7</td>
<td>38.8</td>
<td>56.3</td>
<td>43.8</td>
<td>45.2</td>
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<tr>
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<td>42.1</td>
<td>†</td>
<td>38.8</td>
<td>39.4</td>
<td>43.4</td>
<td>50.0</td>
<td>28.2</td>
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<tr>
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<td>44.8</td>
<td>†</td>
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<td>35.5</td>
<td>39.7</td>
<td>48.3</td>
<td>28.0</td>
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<tr>
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<td>Coordinator</td>
<td>74.5</td>
<td>37.1</td>
<td>100.0</td>
<td>45.9</td>
<td>61.8</td>
<td>58.9</td>
<td>12.9</td>
<td>85.0</td>
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<td>53.3</td>
<td>33.8</td>
<td>47.0</td>
<td>43.1</td>
<td>24.1</td>
<td>54.8</td>
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<tr>
<td></td>
<td>Representative</td>
<td>52.1</td>
<td>38.0</td>
<td>53.1</td>
<td>36.0</td>
<td>49.1</td>
<td>49.4</td>
<td>18.7</td>
<td>47.9</td>
</tr>
<tr>
<td></td>
<td>Consultant</td>
<td>37.8</td>
<td>35.5</td>
<td>27.6</td>
<td>34.1</td>
<td>39.1</td>
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†No group members; ‡Group of ≤2 members cannot be Coordinators; §Group of 1 member cannot be Gatekeepers or Representatives
Figure 5. NPS present urban collaborative network in Detroit. Actors colored by organizational category and sized by quartiles of percent capacity of all G&F brokerage roles, with larger actors representing lower percent capacity and more potential for brokerage.
Figure 6. NPS present urban collaborative network in Tucson. Actors colored by organizational category and sized by quartiles of percent capacity of all G&F brokerage roles, with larger actors representing lower percent capacity and more potential for brokerage.
Figure 7. NPS present urban collaborative network in Boston. Actors colored by organizational category and sized by quartiles of percent capacity of all G&F brokerage roles, with larger actors representing lower percent capacity and more potential for brokerage.
CHAPTER 5: INTERNAL COLLABORATIONS FOR EXTERNAL RELEVANCE: NATIONAL PARK SERVICE ORGANIZATIONAL RESILIENCE IN URBAN AREAS

Target journal: American Review of Public Administration

5.1. Abstract

Conservation agencies often use inter-organizational partnerships to build resilience and enhance relevance. Although external efforts are important, internal capacity building (relationships and structures) is also vital to resilience and relevance. These internal relationships can increase the agency’s ability to strive toward goals effectively and efficiently, and thus build resilience, through increased social capital. However, this mesoscale of intra-organizational groups has been of lesser focus in resilience studies. The U.S. National Park Service (NPS) has adopted this scale as critical in building its resilience, as shown in their Urban Agenda goal of “OneNPS,” or building agency-wide connections. We center this study on investigating intra-organizational group relationships in the context of the NPS’ Urban Agenda using a mixed methods, multi-site case analysis. Specifically, we examine relationships within (i.e., bonds) and across (i.e., bridges) three groups: parks, programs, and offices. Pairing interviews with social network analysis in Detroit, Tucson, and Boston, we examine the relative prevalence and intensity of these relationships, as well as present and potential supportive structures and opportunities. Findings suggest that parks tend to favor bonds and programs tend to favor bridges, with offices playing a supporting role to both. To further develop resilience, an emphasis is placed on cultivating bridges, especially with programs. Managerial,
theoretical, and methodological implications of mesoscale resilience investigations are detailed.

Keywords: National Park Service, resilience, relevance, network, homophily, urban, bonding, bridging, rigidity, mixed methods

5.2. Introduction

“Relevance” and “resilience” are pressing concerns for public agencies. These concerns may be mitigated by intra-organizational collaborations. Internal knowledge sharing and collaborations can increase efficiency, effectiveness, and highlight areas and approaches for creative combining of skillsets and ideas. Interactions within a group (i.e., bonding) and across groups (i.e., bridging) in an agency can facilitate these benefits and potentially strengthen an organization’s resilience and relevance. Large federal bureaucracies with a focus on external products and engagements, however, may have underdeveloped bonds and, especially, bridges.

Such is the case with the U.S. National Park Service (NPS). Although long-focused on its external dual mission of public engagement and resource protection, the agency’s centennial in 2016 provided an opportunity to reflect on internal capacity concerns. A landmark centennial initiative, the Urban Agenda, highlighted the importance of furthering internal connections for greater external relevance by explicitly prioritizing “OneNPS,” or enhanced community and communication among the agency’s parks, programs, and offices. This initiative provided an opportunity to investigate bonds and bridges in intra-NPS collaborations in Detroit, Tucson, and Boston, within the context of the Urban Agenda, and to assess what their relative presence suggests about
the agency’s relevance and resilience. Insights from our investigation have theoretical and methodological implications for future mesoscale investigations of resilience.

5.3. Conceptual Foundation

5.3.1. The Relevance of Resilience

Public conservation agencies are increasingly concerned with their relevance with an increasingly diverse U.S. population. Although these agencies have always been concerned with attracting visitors and encouraging stewards, expanding efforts to reach beyond already-interested groups is a relatively new endeavor. Relevance may be viewed as a diffuse source of potential disturbance (Jarvis, 2012). Organizations that are more relevant may be more resilient, whereas those that are less relevant may be less resilient and more prone to disruption (Hamel & Välikangas, 2003). Relevance loss and other diffuse source disturbances (e.g., climate change) may manifest incrementally and be both potentially long-lingering and trickier to manage than a sudden, discrete source disturbance (Duit, Galaz, Eckerberg, & Ebbesson, 2010; Hamel & Välikangas, 2003; Young, 2010). To build resilience for enhancing relevance, conservation agencies often use inter-organizational partnerships (Young, 2010). External efforts are important but should not be emphasized at the exclusion of building intra-organizational resilience.

Examining relevance as a potential disturbance provides opportunity for proactive capacity building, or precursor (i.e., readiness and preparedness) resilience (Boin & van Eeten, 2013; Foster, 1993; Ponomarov & Holcomb, 2009). In general, resilience relates to an organization’s adaptive capacity to moderate effects of risks and disturbances, sustainably promote competence, capitalize on emergent opportunities, flex and re-organize, and encourage growth through mindful practices (Folke, 2006; Gunderson &
Holling, 2002; Horne & Orr, 1998; Oppong Banahene, Anvuur, & Dainty, 2014; Weick & Sutcliffe, 2001). In particular, precursor resilience is the ability to navigate around/through potential disturbances with foresight and approaches to accommodating change without catastrophe. However, perhaps because questions of resilience are often witnessed/addressed with hindsight, post-disturbance studies have received more attention in public agency and public-private partnership investigations than precursor resilience (e.g., Bhamra, Dani, & Burnard, 2011; Boin & van Eeten, 2013; Comfort, Sungu, Johnson, & Dunn, 2001; Crichton, Ramsay, & Kelly, 2009). Studies on precursor resilience instead tend to focus on disaster, crisis, and emergency planning (Crichton et al., 2009). A study of the National Aeronautics and Space Agency and the California Independent Systems Operator, for example, found that both had high technical competence and extensive procedures to avoid calamities, although competence and planning alone were insufficient for precursor resilience (Boin & van Eeten, 2013).

Resilience investigations routinely center on a macro level subsuming single organizations (e.g., landscape-level collaboratives, interagency task forces) (e.g., Chewning et al., 2013; Comfort et al., 2001; Dawes, Gharawi, & Burke, 2012). Empirical studies focusing on strengthening an organization’s adaptive capacity have been noted as sparse but necessary to advance the concept (Bhamra et al., 2011; Boin & van Eeten, 2013). Explicitly, how precursor resilience may be built into an organization, rather than limited to crisis-response, has yet to be adequately explored (Boin & van Eeten, 2013; Stark, 2014).
5.3.2. Organizational Resilience – Bonds, Bridges, and Other Structures

One means of examining an organization’s precursor resilience is through its structure and relationships. Structures may support or detract from resilience (Bodin, Crona, & Ernstson, 2006; Lee & Shen, 2013). Duit (2016) posits that a resilient public administration has non-hierarchical, overlapping networks of multiple groups; multiple knowledge sources; stakeholder participation; and systems for social learning and risk taking. This emphasis on overlapping networks suggests the importance of cultivating and nurturing relationships within and across groups.

Within-group relationships (bonds, “strong ties”) can integrate similar communities for greater cohesion and power (Bogason & Musso, 2006; Putnam, 2000) and between-group relationships (bridges, “weak ties”) can connect dissimilar groups for the advancement of mutual interests (Bogason & Musso, 2006; Granovetter, 1973; Putnam, 2000). Bonds are less costly to maintain and facilitate high levels of trust and reciprocity (Ryu, 2017). For example, Andrew and Carr (2013) found strong bonds among local government emergency managers in Texas facilitated disaster preparedness activities. Bridges can enhance adaptive governance (Folke, Hahn, Olsson, & Norberg, 2005), collective action (Musso, Weare, Oztas, & Loges, 2006), and increased coordination at lower costs (Andrew & Carr, 2013). Intra-organizational bridges are limited, however, by factors such as political pressures, interpersonal relationships, and resource scarcity (Oppong Banahene et al., 2014). Benefits and limitations of bridges have been demonstrated in publicly administered entities such as emergency response planning departments (Andrew & Carr, 2013; Crichton et al., 2009) and forensic laboratories (Binz-Scharf, Lazer, & Mergel, 2012). Both relationship types are necessary.
to share resources and adaptive responses but the balance between them is situation-specific (Musso et al., 2006; Newman & Dale, 2005; Ryu, 2017).

Homophily is the preference for social relations with similar groups (i.e., bonds exceed bridges) (Prell, 2012). In organizations with strong structure, homophily may be already built into group typologies and composition (Prell, 2012). Stronger homophily may reduce resilience, as a prevalence of bonds can constrain social norms and reduce information access (Newman & Dale, 2005). Weaker homophily can assist in cross-group communications to more readily incorporate lessons learned from one group’s past disturbances into other groups’ approaches (Crichton et al., 2009). Therefore, examining homophily and specifically bridge construction and maintenance is important to supporting resilience.

Building bonds and bridges is often tempered by organizational rigidity. Rigidity may enable an organization’s long-term survival (Välikangas, 2007) but may also inhibit the flow of resources through the creation of separate knowledge networks. Thus, rigidity may limit an organization’s ability to adaptively respond to a disruption or opportunity (Walker & Salt, 2006; Yang & Maxwell, 2011). Rigid organizations may also harbor dense social networks that inhibit entrance and egress (Newman & Dale, 2005). Density of interaction (proportion of possible relationships actualized) can aid resilience by gathering disparate resources but can also thwart resilience through homogenized perceptions and resources (Bodin et al., 2006). Flexibility does not need to be the converse to rigidity, though, as they are not mutually exclusive (Ebbesson, 2010). It is possible, albeit challenging, to infuse exploration and flexibility within a structured system (Stark, 2014; Välikangas, 2007; Yang & Maxwell, 2011). Ebbesson (2010) details
this merging in environmental and health governance as legislating “open-textured rules, principles and goal-oriented norms” (p. 418) that contain substantive yet contextually-applied standards. This balancing of scaffolding and innovation is at resilience’s core (Walker & Salt, 2006).

Although collaborative networks and collective governance have increasingly garnered attention (e.g., Andrew & Carr, 2013; Binz-Scharf et al., 2012; Dawes et al., 2012; Musso et al., 2006; Sayles & Baggio, 2017), internal dynamics of a single government organization has garnered less attention. Ryu's work (2017) on bonds and bridges in a public school system and Yang and Maxwell's work (2011) on the role of proximity in intra-organizational information sharing provide notable exceptions. As an organization itself may be considered a complex system (Morgan, 2006), examining internal relationships and resilience is warranted. Furthermore, parsing the differences in bonds, bridges, homophily, and rigidity – probing the structural middle of “groups” between network and individual levels – has been an underutilized tool in examining organizational resilience. Inquiring about these measures on this mesoscale may provide insight on an organization’s preparedness to mobilize networks and resources for enhanced capacity.

5.3.3. Relevance, Resilience, and the National Park Service

Recent work by the NPS offers an opportunity to examine the mesoscale of organizational group relationships and how they may contribute to resilience and relevance. The NPS has made a concerted effort to reach broader audiences, and thus enhance its relevance to more Americans, through its Urban Agenda (NPS Stewardship Institute, 2015). Agency-wide, and in densely populated urban areas in particular, an
overarching goal (and, conversely, potential disturbance) is public relevance. The Urban Agenda aims to speed progress to this goal by encouraging resource sharing through collaborative action. It endeavors to reach the majority of the population and conserve proximate natural and cultural resources by highlighting NPS presence and partnerships in America’s cities. Piloted in 10 cities representing a spectrum of physical NPS park presence, the intent is to encourage all NPS entities to reflect more on their relevance-building relationships. These relationships require the support of organizational structure. Crucially, this initiative is not solely focused on external relationships but also explicitly frames “OneNPS,” or awareness of and connection to the NPS’ full portfolio, as a primary avenue. Sharing diverse strategies and creatively utilizing resources intra-agency may assist in meeting this goal and building resilience.

Although the NPS’ full portfolio is robust, it is also highly structured. As with many large agencies, the NPS uses structure to discretely categorize internal groups. Three prominent NPS groups are parks, programs, and offices. Parks offer a diversity of physical cultural and natural resources for preservation and enjoyment. Programs are a heterogeneous grouping of NPS community connection efforts as the NPS reaches beyond park boundaries and into communities to further its mission. Offices (e.g., Regional Office of Interpretation; Relevancy, Diversity, and Inclusion Office) provide administrative support to parks and programs, as well as function as hierarchical connections to other geographic areas and branches of government. All 417 national park units are part of the National Park System. There is no parallel structure for the 52 programs or numerous offices of the NPS. From a managerial perspective, examining what relationships exist and what structures support them is an important step to
efficiently target areas for OneNPS development. Documenting the presence/absence of relationships lays foundation necessary for subsequent descriptions of resource sharing across relationships and is thus a vital first step in understanding how to effectively incorporate and discuss OneNPS. This research, therefore, utilizes NPS parks, programs, and offices in urban areas and the goal of relevance as a case study application of intra-agency relationships, structures, and resilience.

5.4. Research Questions

Public agencies are often structured by organizational divisions. Relationships within and across these divisions (i.e., groups’ bonds and bridges) may illustrate resilience capacity. We empirically examined the intersections between organizational structure and resilience, focusing on the NPS and its relevance-driven Urban Agenda. Four questions drove our investigation:

1. What present bonds and bridges exist?
2. What potential bonds and bridges are desired areas for development?
3. How does organizational structure contribute to relationship development?
4. What do present and potential relationships and structures suggest about resilience capacity?

5.5. Methods

To explore intra-NPS relationships and structure, we used a mixed methods, multi-site approach. Structures have often been investigated through single means of inquiry (e.g., Binz-Scharf et al., 2012; Bodin et al., 2006; Eglene et al., 2007; Musso et al., 2006). Combining qualitative and quantitative methods has been underemployed, but not entirely neglected (e.g., Jaaron & Backhouse, 2014), in investigating relations to resilience. The cases we chose represent a spectrum of NPS physical presence: Detroit (park distant from the city), Tucson (park adjacent to the city), and Boston (park within
the city). All have multiple programs with interests in the city and interact with regional and national NPS offices.

In each city, a NPS Urban Fellow was hired to convene and promote NPS urban relevance networks and efforts. This person was considered a networking leader (Eglene et al., 2007) and our main point of contact (Stake, 2006). Together with the Site Host (NPS leadership staff working in the area, such as a park superintendent), these individuals were knowledgeable about city characteristics, NPS presence, and key organizational contacts. These two NPS staff members supplied the contact lists for both the qualitative and quantitative portions of this investigation (Table 9).

In-depth semi-structured interviews were conducted by the first author in September – November, 2015, following guidance for quality qualitative inquiry (Goodyear, Jewiss, Usinger, & Barela, 2014). Interviews were conducted primarily in-person or, as a secondary method, by phone. They averaged 65 minutes and were voice recorded for transcription. The response rate was 100% (n=29) (Table 9). Questions centered on the respondent’s experience working in the NPS in urban areas, perceptions about the Urban Agenda and OneNPS specifically, intra-agency relationships, and visions for further related work and integration. Transcripts were coded thematically for instances of knowledge about and perspectives on intra-NPS relationships and related structural supports/hindrances (Saldana, 2013). Although the Urban Agenda refers to the NPS portfolio of “parks and programs,” interviewees made repeated distinctions with a third entity – offices (regional and national). To be responsive to this delineation, as well as provide NPS managers a more nuanced product (Patton, 2011), we correspondingly examined offices as a third group.
A quantitative social network analysis (SNA) activity was conducted by the first author in May – September, 2016. SNA examines structural patterns of social relationships (Scott, 2013). For triangulation, there was overlap between interviewees and SNA activity participants (Table 9) (Stake, 2006). Potential participants were contacted by email and conducted the city-specific SNA activity via an interactive Internet-based format, with the lead researcher on the phone for directions and assistance. The response rate for the SNA activity was also 100%. Respondents were asked if they had a present relationship with other parks, programs, and offices identified by their Urban Fellow. If they did not, they were asked if they saw potential for a relationship. Data were coded in a one-mode matrix and analyzed in UCINET 6.2 (Borgatti, Everett, & Freeman, 2002). Additional descriptive data were gathered about NPS relationships external to the roster list. We used the co-variate of NPS group (park, program, or office) to categorize NPS entities and thus the relationship attribute of bond or bridge. Relationship attributes of present and potential ties defined density and degree on a network and group level.

We examined density and homophily (both measures of network cohesion) (Scott, 2013) on intra-group, inter-group, and network levels to assess bond, bridge, and total relationship prevalence. Both relate to proportions of relationships between NPS staff/entities. Density is the proportion of relationships present out of those possible (range = 0 – 1). Homophily is the difference in number of bridges minus bonds, divided by the total number of relationships (range = -1 – 1, or all bonds – all bridges). Although a common homophily measure assumes reciprocity when either of the two staff indicate presence (Krackhardt & Stern, 1988), we used a more sensitive measure to account for directionality of unreciprocated relationships for two reasons: 1) Differential knowledge
about relationship presence may indicate areas of rigidity and lack of information sharing, and 2) Comparisons of present to potential relationships requires an accounting of unreciprocated future relationships (i.e., it would be presumptive to label not-yet-existing one-way relationships as two-way).

For parity of discussion between the two methods, we have standardized the language used concerning individuals and their relationships. Where technical SNA terms differ from language spoken in the interviews, we have chosen to use the more common, humanizing, and inclusive vernacular of the interviewees. Examples of this are groups (versus “subgroups”) of parks, programs, and offices; staff (versus “actors” or “nodes”); and relationships (versus “ties”). Relationships are often informal (e.g., no contract, no set exchange of goods/services). We used the definition of informal relationships forwarded by Binz-Scharf et al. (2012): interpersonal relationships that may cut across organizational structure and are an extra work duty. Bonds and bridges (versus “in-group” and “out-group” ties) were named variously, convolutedly, and inconsistently among interviewees. Bonds and bridges are sometimes used to describe centrality and betweenness, respectively, in SNA; we use these terms with similar intent on the mesoscale of groups. Describing connections as bonds and bridges conveys the meaning across both methods and in comparison to the literature without losing connotations in the qualitative data.

5.6. Findings

In each city, we found examples of group bonds and bridges. Overall, bonds (i.e., park-park, program-program, and office-office) were more prevalent. Bridges (i.e., park-program/office, program-office/park, and office-park/program) tended to emphasize the
centrality of parks to the NPS. Quantitative SNA measures summing each network’s relative abundance of bonds and bridges generally corroborated qualitative findings. Parks and offices were more homophilic (favoring bonds) than programs (favoring bridges) (Table 10).

Examples of organizational rigidity, which may promote bonds over bridges, were prominent in the interviews. Correspondingly, structures that support relationship-building tended to focus more on bonds. Interviewees expressed wanting more information about and interactions with other NPS groups, especially programs, indicating a desire to construct bridges. SNA supported interview findings; networks generally exhibited dense structures but room for relationship development (Figure 8). In particular, there is potential for more bridges and program integration.

5.6.1. Bonds

Staff frequently elaborated on examples of working with similar entities, although the intent of these relationships differed by group. The most common bond was park to park. Two levels of distinction were prominent: staff working with their counterpart(s) 1) across parks (e.g., interpretation staff at Saguaro National Park and Tumacácori National Historical Park) or 2) within a park (e.g., interpretation and resource management at Saguaro) to address common concerns. As both share overlapping networks, knowledge is spread through communication across staff groups. Many park staff mentioned that they were “already doing this” relationship-building and information-sharing, supported by structures such as details (i.e., short-time assignments in a similar position in another park), affinity group discussions (e.g., Superintendent quarterly phone calls, specific invasive species management task forces, Hispanic/Latino relevance outreach...
workshops), park-wide all-hands meetings, and a collective identity as members of the National Park System. The ubiquity of park-park relationships suggests that pathways for these communication and collaboration bonds are known and utilized.

Programs and offices mentioned bonds less frequently. For both, the bonds that interviewees described were usually focused on wide-reaching efforts. Program-program collaborations to assist with National Heritage Area support were an oft-mentioned example. In Detroit, for example, staff in three programs (Motor Cities National Heritage Area, National Historic Landmarks, and National Register of Historic Places) collaborated to involve local communities in the nomination process of culturally significant buildings and infrastructure. In Boston, staff in three other programs (Blackstone River National Heritage Area, Northeast Museum Services Center, and Historic Architecture Conservation and Engineering Center) jointly trained local historical societies on collections management and preservation. Relationships between regional and national offices coalesced around agency-wide, capacity-building initiatives, such as promoting relevance, diversity, and inclusion or celebrating the NPS centennial.

Quantitative examinations supported the prevalence of existing bonds and desire for further bonds (Table 10). Present network bonding densities averaged 59-76% and increased to 77-90% when potential relationships were included. Differences in bonding densities were more pronounced at the group level. The lowest bonding density was within programs in Tucson (38%) and the highest was within offices in Detroit (100%). Programs reported the lowest bonding densities across the three cities in both present and potential networks. Parks and offices reported potential bonding densities of 95-100%, indicating a desire for group closure (i.e., full connectedness).
5.6.2. Bridges

Bridges connecting groups were less prevalent, more project-defined, and centered on a deliverable experience for the public. A common format was that for a particular event, a park would provide the resource base and staff; a program would provide in-roads to the community audience; and regional/national offices would provide support, guidance, and prioritization. This format utilizes each group’s technical expertise and unique character. In contrast to the multiple experiences of bonds described by interviewees in each city, their recollections about bridges tended to refer to singular instances. In Tucson, for example, Saguaro National Park (a park) and Juan Batista de Anza National Historical Trail (a program) shared funding to hire an outreach coordinator and conduct Hispanic/Latino engagement focus groups. Discussions on this shared need for outreach to a particular community identified a productive means to collaborate:

How can the Anza Trail increase its visibility in Tucson? We were already visible with the NPS brand [at Saguaro]…so it made sense to merge funding…and try to increase capacity by working together. Because we have a shared interest in outreach to the [Hispanic/Latino] community, that's our point of overlap…Neither Saguaro nor the Anza Trail has enough funds to have a full-time [outreach coordinator]. We decided to share that position. (T13)

In Boston, Boston Harbor Islands National Recreation Area partnered with Rivers, Trails, and Conservation Assistance (RTCA; a program) to install a temporary art exhibit and attract patrons of visual and acoustic arts to the park. Similarly in Detroit, River Raisin National Battlefield Park also worked with RTCA to transport urban youth to the park to explore the Detroit River by canoe. Across these instances, regional offices provided administrative support and legal permissions. In each, the focus was on engaging community groups who may not have previously explored their local national parks. The
singularity of these successful examples, and the emphasis on a public deliverable rather than strictly internal information sharing, suggests that developing bridges requires more resource investment and, therefore, is reserved for large, time-bound, externally-focused projects.

Quantifying bridge prevalence added nuance to the qualitative findings (Table 10). Similar to bonding results, present network bridging densities ranged from 62-75% and increased to 85-89% in potential networks. Group level bridging densities varied by city, with the clearest patterns as follows. In Detroit, parks had the highest present and potential bridging densities (unchanged between measures) whereas offices had the lowest. In Tucson, offices had the lowest present and highest potential bridging densities. In Boston, parks had the lowest present and potential bridging densities whereas offices had the highest. Reciprocity was determined by parsing outbound bridge prevalence at the group level (e.g., park to program, program to park). A group reporting more outbound than incoming relationships with another group has less reciprocity. For both present and potential networks:

- Park-program reciprocity: Detroit’s park and Tucson and Boston’s programs had less.
- Office-park reciprocity: Detroit’s was balanced; Tucson and Boston’s was mixed.
- Program-office reciprocity: Detroit and Tucson’s programs had less; Boston’s was balanced.

To summarize bridging and reciprocity patterns, programs had bridging densities between parks’ and offices’, but more of these bridges were unreciprocated.
5.6.3. Homophily

Comparing groups’ bond to bridge densities quantifies the proportion of diverse relationship-building (Table 10). Network-level patterns were similar between present and potential networks: Detroit and Tucson had positive homophily indices (i.e., more bridges) and Boston had a negative homophily index (i.e., more bonds). Group-level homophily indices were also determined. In present and potential networks, park and office homophily indices were negative (i.e., more bonds). Program homophily indices in present networks were positive (i.e., more bridges). In programs’ potential networks, homophily indices increase in Detroit (i.e., more bridges) and decrease in Tucson and Boston (i.e., more bonds). Across cities and groups (except Detroit programs), potential network homophily scores were closer to zero than present network scores, indicating that relationship growth favors a balance of bonds and bridges.

5.6.4. The Potential of Programs

In particular, staff in all three groups mentioned that they wanted to know more about programs. Although spoken of as a collective group by the NPS, program staff reported only loose affiliations with other programs. The most common bridges described were in fact not with other distinct programs, but rather with a parent or a sibling program (e.g., RTCA headquarters, project offices within RTCA). Promoting program bonds and bridges could improve organizational success. A Detroit-based program staff highlighted this by colorfully stating:

Programs are effective but they could be doing a hell of a lot more damage in all of the positive and right ways if some of those silos were broken down – particularly if there was better cross-communication and people who really serve as ambassadors. (D15)
Program staff mentioned that they were generally not aware of other programs’ functions. Potentially because many programs work at the NPS’ edges, interacting with communities perhaps more so than the NPS’ land-based parks, and certainly more so than the NPS’ administrative offices, program staff said their focus was on creating external relationships rather than with other programs. They did, however, see value in better understanding other programs in their geographic area, to extend the opportunities for external relationships.

Park staff routinely mentioned that they wanted to improve on their low levels of knowledge about programs, particularly ones at work locally, because these greater program-park networks “provide an element of resilience” (B12) and contribute to effective community connections. Interviewees in the three regional offices supporting the cities went farther in their comments about programs being lesser known within in the NPS. From their viewpoint, programs may actually perpetuate this distinction and resist more NPS-integrated relationships because they enjoy their unique identity. Regarding program engagement in Detroit, a regional office staff stated:

To me the RTCA program has always prided itself in being separate [entrepreneurs] of the Park Service. I don't really think they espouse our traditional values or communicate those values….A lot of parks don't really know what RTCA is. A goal would be for them to embrace their traditional Park Service side and be able to speak to that. Not just, "we're conveners who do this other thing and we're separate than the park." (D17)

This lack of knowledge about programs, and potential disconnection between programs and other NPS groups, indicates a specific area for relationship growth that transcends the dominant bond/bridge distinction.
5.6.5. Institutional Rigidity

The difference in bond and bridge frequencies highlights aspects of NPS institutional rigidity. NPS divisions and hierarchies are an efficient means to apply structure to the expansive and diverse agency. These separations, however, may also contribute to a paucity of knowledge about and connections with dissimilar groups. A few participants likened this structuring to tentacles unaware of what other tentacles were doing even though the NPS is promoted as a monolithic entity. Opportunities for knowledge sharing (e.g., detail assignments, resource-specific conference calls) tend to reinforce group identity boundaries by creating group-focused rather than NPS-focused networks. A participant in Boston summarized these partitions among the 380-plus parks as:

What has really struck me often is that [because the NPS] was built on a military structure you have these individual, standalone units. Even within those parks you have very strong organization structures. What I'm saying is there is not “OneNPS,” there is 380 NPS' and then within that it gets multiplied and you end with 10,000 NPS'. (B17)

Interviewees furthermore expressed that, as a federal agency existing to serve the public, the NPS is reluctant to devote resources to bridging these partitions and building internal capacity when these resources could be devoted to the resource protection and public enjoyment portions of its mission. For example, participants in all three cities mentioned that youth engagement is a major emphasis; resources are available to support youth outreach but not for related internal needs, such as staffing or time to develop related bridges. This lack of support for internal connections transcends specific endeavors. Each interviewee, for example, stated that they did not have enough information on others’ work or appropriate guidance on their personal role in OneNPS.
Quantitative network density results also suggest networks may harbor rigidity, as a large proportion of both the possible and potential connections have already been established. Overall, networks were dense, with 61-75% of the possible connections presently actualized. Density increased to 82-90% in potential networks. If the number of potential relationships is considered an effective density maximum, versus the absolute density maximum of 100%, the adjusted present relationship densities would be 74% in Detroit, 69% in Tucson, and 84% in Boston. The network average degree (average relationships per staff) varied from 4.25 in Detroit to 10.53 in Boston to 11.80 in Tucson. Proportional to network size, average degree would increase the most in Tucson (45%) if potential relationships are realized. Park staff in Detroit and Tucson and office staff in Boston reported the highest concentrations of relationships at the group level.

To explore the networks’ bounds, we asked SNA participants to list their prominent beyond-roster list NPS relationships (Table 11). In Detroit and Boston, where only one park was on the roster list (and thus no quantifiable bonding densities or homophily indices), neither park mentioned other parks with which they have a relationship, although they actively mentioned other parks in interviews. An office in Detroit and programs in Boston did, however, report other park(s) in their networks. This was the only external relationship reported for Detroit. Parks in Tucson mentioned eight other parks across Arizona. Programs in Boston and Tucson reported 16 external connections each and offices in the two cities reported four relationships each. In total, 33 external relationships were reported in Tucson (45% parks, 18% programs, and 37% offices) and 25 in Boston (16% parks, 56% programs, and 28% offices).
5.6.6. Addressing Institutional Rigidity

Although many expressed that few structures exist for inter-group communication and collaboration, some have made personal connections that foster these goals on a more informal basis. Through these personal connections, and leadership support of the time commitment necessary for them to flourish, inter-group efforts have been successful. In Boston, the approach of co-locating park and program staff has increased routine inter-group staff interaction. In this way, when opportunities arose to create/enhance public relevance, park and program staff in Boston were readily able to describe with whom they would work (bond and bridge) and what expertise individuals may lend. In contrast, park and program staff are dispersed across Detroit and Tucson and participants did not report the same depth of knowledge about their colleagues. This suggests that proximity plays a key role. Because physical proximity is not always appropriate or feasible, interviewees identified a need for support of virtual cross-learning and cooperation experiences.

Despite present patterns of interaction and rigidity, interviewees expressed a desire for expanded bridges and institutional structures promoting both bonds and bridges. They also, however, expressed uncertainty as to why they should devote time or concern to forging these connections. Given the promotion of a OneNPS mentality, mechanisms for integration will need to account for staff’s simultaneous want and ambivalence/reluctance about OneNPS’ utility. Some participants stressed the usefulness of “OneNPS” must be emphasized in agency language. Others felt that the NPS had gotten ahead of itself with embracing the term without first properly defining it, such as happened with past initiatives (e.g., “diversity”). Phrasing the idea of bonds, bridges, and
internal collaboration generally as a culture shift rather than one part of one initiative was important to those who saw the value of the concept in practice. Other key phrasings included promoting collaborative thinking as value-added instead of merely work-added, demonstrating its usefulness for organizational and operational effectiveness, and always linking the idea of internal capacity to external success (i.e., as imperative to fulfilling the NPS mission).

Actions need to back up words. Park staff who have been successful in fostering bridges, or at least understanding other NPS groups’ mission-relevance, tended to pursue particular institutional structures to build these connections. Program and office staff expressed that they either did not seek out or were not afforded these opportunities. Some park staff reported being supported by leadership to use sabbaticals; Albright-Wirth Grants (employee development program to advance career goals); and detail assignments to engage with other groups, settings, and skills. Multiple staff at Saguaro National Park, for example, used an Albright-Wirth Grant to spend time at Golden Gate and Santa Monica National Recreation Areas and learn about building collaborations across NPS groups and external partners. As these opportunities are limited, interviewees expressed desire to build opportunities into/onto structures already available. For example, park-wide all-hands meetings and affinity group conference calls could occasionally include the broader geographic or topical NPS community. The loss of periodic in-person meetings and conferences, now curtailed/eliminated by federal travel restrictions, was strongly lamented. These face-to-face interactions were said to be crucial ways in which staff learned about others’ projects and expanded information and collaboration networks. Beyond personal interactions, staff would appreciate Internet-based resources
that provide clear, searchable information, short videos, and “a pinch of that” trainings about different parks, programs, and offices. Regardless of the formats in which supports are available broadly, interviewees stressed that actions needed to be encouraged individually (e.g., specific annual work plan goals).

5.7. Summary

We examined intra-NPS relationships to assess present conditions and potential opportunities, especially for bridging. Our qualitative and quantitative data offer different approaches with convergent findings. Park-dominated relationships were a focus in all three cities. As the traditional core of the NPS, parks have a robust support structure for relationship formation. The agency’s emphasis on these established channels and supportive structures may indicate organizational rigidity, which further emphasizes bonds. Offices assist and supervise the endeavors of park and program staff. Although many relationships have already formed, there is still desire to further connect, especially to/within programs. Areas for organizational growth centered on increased relationships and related supportive structures (again, particularly to/within programs).

In this investigation, we elicited information on intra-NPS relationships and structures that contribute to our broader understanding of organizational resilience. We addressed four areas, qualitatively and quantitatively, in this contribution. First, we detailed what relationships presently exist within the NPS’ urban-related parks, programs, and offices. In both methods, relationships to and within parks are emphasized. Park-centric relationships reinforce the primary identity of the NPS as a system of publicly owned and federally managed lands, with offices and programs playing supporting roles. Second, potential relationships suggest further program bonds and bridges as a prime area
of desired organizational growth. Third, organizational structures seem to align with knowledge sharing and networking within parks. Staff would welcome structures that explicitly promote bridging relationships. Finally, differential relationship prevalence and densities, and the imposition (actual or perceived) of structures against bridges, imply that the NPS has resilience-deterring rigidity. However, it is actively interested in improving its preparedness and adaptive flexibility. Beyond applicability to the NPS, these findings may assist conservation agencies more broadly and organizations with functional if not formalized groupings (e.g., health care, education). They also contribute to theoretical understanding and measurement of organizational structure and resilience.

5.8. Discussion

This investigation allows for a more strategic focusing of an organization’s limited resources. So, what is the most resilient balance of relationships within an organization? Not surprisingly, there is no magic number. It is tempting yet improbable to define a system as “resilient” at a particular point. Because resilience is both an ideal and mercurial state, forging relationships to enhance relevance and resilience must be viewed as an ongoing process (Folke, 2006). Although we cannot pinpoint where the balance may lay for an individual city, or the whole NPS, our findings do offer direction. Overall, there is a desire for local bridges. This appears especially important with programs. Promoting and developing means to make relationship-building more accessible will be essential. Given the lack of knowledge in all three cities about programs, including by other programs, but the benefit that many saw in sharing resources, relationships, and community networks with programs, this area is highlighted for further development. Indeed, programs may very well serve as creative connections to
enhance relevance, as their work with diverse external groups complements the resource-based public engagement mission of parks. We saw evidence of this with park-based events that utilized programs’ community connections to draw in diverse audiences. Using OneNPS in such a targeted means, to identify where there may be gaps and potentially how to connect personnel, may also alleviate some of the concern about resource drains and time burdens with incorporating the concept into work.

Clustering programs as a homogenous group, however, may not be warranted. Although discussed as a cohesive group, “programs” contains a wide variety of efforts. Where program staff mentioned bonds, for example, these relationships were based largely on shared geography rather than on explicit similarities. “Parks” are discussed in similarly cohesive terms, but tend to have more commonalities than programs. Tucson’s park bonding densities, for example, were higher than any program bonding densities. This difference may be a manifestation of the collective identity that parks share as part of the National Park System whereas programs lack a parallel collective identity. Highlighting the unique functions of programs and how each contributes to the NPS’ mission and relevance, while simultaneously creating an umbrella identity for them, may be an area of investment if the NPS is to integrate the OneNPS on multiple levels. Furthermore, examining whether the grouping typologies used nationally are actually reflected locally may be another means of sensitizing organizational language to be more inclusive of group heterogeneity.

The centrality of parks to internal relationships, and the supports given to building their bonds, is important to the NPS’ identity. “Resilience” often concerns a system’s core character or essential qualities (Gunderson & Holling, 2002; Walker & Salt, 2006).
Undoubtedly, the essential quality of the National Park Service, like other conservation agencies, is its natural and cultural resource base. Adaptively seeking relevance with the American public cannot occur if there is no resource to which these connections can be made. Thus, it is logical that this group enjoys a degree of power. However, if the agency is to enhance its resilience through a concerted OneNPS mentality, then power distribution (if not equity) is necessary, supporting underrepresented groups’ relationships specifically and bridges generally. Respondents repeatedly stated that support for internal capacity building was scarce; this may be an area of organizational rigidity that requires flexibility and creativity, potentially with insight from non-governmental partners. As a federal agency, expenditures are scrutinized for judicious use, mission-applicability, and public good. In supporting and phrasing the development of relationships explicitly as a means to build capacity for relevance, the NPS may be able to satisfy these demands while highlighting the benefits of network-building (Yang & Maxwell, 2011). External research such as ours can aid agencies in identifying areas for improvement, but reflecting on areas of relationship paucity and actively encouraging relevance-related relationship development is necessary for all levels of staff.

Although our interviews suggest structural support for collaborations is weighted toward park bond and bridge development, SNA findings suggest program staff are doing more outreach (e.g., more bridges – both reciprocated and unreciprocated). The NPS may want to consider what program-specific organizational trainings and individual skillsets are of learning utility to the broader agency. Interview data qualified the quantity of program bridges in the SNA, suggesting that, although relatively abundant, this outreach is generally project-based. Structurally, the agency may want to consider how to
encourage informal networks of loose affiliations that do not require undue investment but can be mobilized when a project or longer-term need arises. As relevance, like resilience, is a journey rather than a destination, having the capacity to reach larger audiences in a time-sensitive means will require that intra-agency sharing initiatives such as OneNPS be networked beyond individual projects.

Organizational structures that promote bridges share commonalities across other studies. Conferences and other face-to-face networking opportunities are paramount (Binz-Scharf et al., 2012). With federal-wide travel restrictions, the loss of these opportunities for most staff highlights a concentrated point of rigidity in/beyond the NPS. To build resilience despite these restrictions, agencies may want to consider virtual sharing opportunities, on-demand learning resources, and robust local networks with facilitators representing groups and connecting localities when travel is permitted.

Structural repositories of information are another means of institutionalizing knowledge transfer and networking hubs (Eglene et al., 2007). Indeed, the Urban Agenda support team is attempting information consolidation with a comprehensive handbook of city-specific program contact information. Caution should be taken with overreliance on this approach, though. Databases may reduce some of the trial-and-error relationship building by individual staff but cannot supplant interpersonal interactions (Binz-Scharf et al., 2012) and may add to organizational rigidity if routinely favored over more creative, responsive measures (e.g., regional all-group quick talk project sharing sessions). As we found phrasings about structure are important alongside structures themselves, new structures must be tied to work utility and mission advancement alike. Navigating how to
judiciously implement and promote agency-wide structures will be an important task as the NPS strives for greater relevance and resilience.

Public organizations, stressed under conditions of complexity and change (or “permanent whitewater” as Comfort et al. [2001] evocatively state), are a prime area for investigating the balance between bureaucracy and adaptation (Stark, 2014), or scaffolds and innovation, central to resilience (Walker & Salt, 2006). We suggest that precursor resilience can be enhanced primarily through bridge-building. In this way, the mesoscale of organizational groups appears to share similarities with macroscale organizational collaborative approaches to reducing vulnerabilities (Andrew & Carr, 2013; Granovetter, 1973; Putnam, 2000). However, three key points differentiate the mesoscale. First, this finer level of detail is imperative for examining seemingly monolithic agencies. Although each “tentacle” of the NPS may have robust external relationships, the lack of shared knowledge among tentacles indicates that intra and inter-organizational resilience may not always match. Second, recognizable groups (i.e., “the face” of an organization) may be both more powerful and more rigid because of this exposure. Including all groups, especially underrepresented ones, is important to examine where pathways to resilience may already be being forged. Third, tying mesoscale resilience to macroscale relevance is an important unifying consideration. In public agencies especially, efforts center on public contribution. Thus, examining the structure of internal collaborations for external relevance emphasizes this goal and reinforces linkages between internal capacity and external success.

Lastly, our mixed methods approach forwards the discussion on how to conceptualize and measure organizational resilience (Lee & Shen, 2013). Resilience is a
multifaceted concept and includes multiple components (e.g., relationships) (Gunderson & Holling, 2002). To understand this multiplicity, combining types of inquiry can be particularly effective. Respondents, for example, eagerly noted present or potential relationships in the SNA. They also readily detailed these relationships and NPS structures in the interviews. Although each information source alone is important, the triangulation that they provide together offers corroborated accounts of present and potential bonds and bridges. Our methods also suggest the importance of pairing data sources for a nuanced understanding of organizational structure. “Offices” were not originally identified as a separate group; solely focusing on quantitative measures would have missed this important distinction raised in the interviews. In examining mesoscale network structure quantitatively after qualitative data had been gathered, again the importance of adequately defined groups emerged. Program homophily scores tended to drive each city’s network homophily score; without parsing group-level data, the distinct behaviors of each group would be missed. Also, we suggest that using potential networks as a density parameter, an effective rather than absolute density maximum, is more situation-appropriate, complementary to qualitative inquiry, and forward-focused, providing preview and guidance on how conditions could adapt longitudinally in a cross-sectional study.

5.9. Limitations and Areas for Future Research

We examined relationship characteristics at the agency, city, and group level. Undoubtedly, additional factors influence relationship prevalence and intensity. Other research has suggested a suite of factors that influence bridge-building strategies, including community (e.g., acceptance of brokerage roles), individual (e.g., leadership
position), and relational (e.g., trust) factors (Binz-Scharf et al., 2012; Bodin et al., 2006). The costs and normative issues of resilience should also be probed (Boin & van Eeten, 2013; Duit et al., 2010). For example, are bonds and bridges viewed as tradeoffs? NPS programs in particular are an area for further exploration. The seemingly independent nature of programs has benefited them, as they have a good sense of bridging. To protect their identity from parks, they tend to emphasize this aspect. It is therefore unclear if programs desire park connections if they come at the expense of autonomous identity. Further research is needed as this runs counter to the dominant narrative we elicited. We also recognize that both our methods to assess potential relationships was biased toward the additive. Culling of present relationships that have served their purpose may very well free up resources to explore other vital and creative relationships in the future. From our conversations with NPS staff, even with anonymity, this appears to be a sensitive topic. It is a valid consideration, though, for enhanced resilience research and efforts should be taken to address potential relationship additions and subtractions in a neutral manner. Factors such as these, and reflections on how their status at multiple time points have influenced relevance, warrant explicit examination in future research.

Finally, characterizing a system’s bounds is a challenging and often futile task (Duit, 2016). We recognize that the system analyzed in this investigation, and the cases chosen to represent it, may not be all-encompassing. Hence, we attempted to probe the system’s edges with our three-case design and follow-up questions on other relationships within the NPS during both data collection efforts (SNA results in Table 11). Further research on NPS organizational resilience and structure, potentially using a different frame of reference (Eglene et al., 2007), respondent composition, or geographic diversity,
would aid in contributing nuance to this preliminary insight. Our 100% response rates do indicate, though, that our intra-NPS approach to investigating resilience and relevance was met with enthusiasm. Although the journey toward organizational resilience and public relevance is unending, detailing group interaction dynamics within conservation agencies such as the NPS may provide trail signs along the path.

5.10. References


Table 9. Participants by National Park Service group and city for each data collection method.

<table>
<thead>
<tr>
<th>Data Collection Method</th>
<th>Detroit Park</th>
<th>Program</th>
<th>Office</th>
<th>Total</th>
<th>Tucson Park</th>
<th>Program</th>
<th>Office</th>
<th>Total</th>
<th>Boston Park</th>
<th>Program</th>
<th>Office</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interviews</td>
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<td>5</td>
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<td>8</td>
<td>4</td>
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<td>1</td>
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<td>5</td>
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<td>9</td>
<td>5</td>
<td>20</td>
<td>1</td>
<td>9</td>
<td>5</td>
<td>15</td>
</tr>
</tbody>
</table>

1 51 total participants enrolled in one or both methods. Detroit had 9 (7 dual-enrolled), Tucson had 20 (8 dual-enrolled), and Boston had 22 (6 dual-enrolled).

Table 10. National Park Service network and group-level density and homophily measures for actual and potential directional networks of relationships in each model city.

<table>
<thead>
<tr>
<th>Measure</th>
<th>City and Network</th>
<th>Detroit Present</th>
<th>Potential</th>
<th>Tucson Present</th>
<th>Potential</th>
<th>Boston Present</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network Number of Relationships</td>
<td></td>
<td>34/56</td>
<td>46/56</td>
<td>236/380</td>
<td>341/380</td>
<td>158/210</td>
<td>188/210</td>
</tr>
<tr>
<td>Network Average Degree</td>
<td></td>
<td>4.25</td>
<td>5.75</td>
<td>11.80</td>
<td>17.05</td>
<td>10.53</td>
<td>12.53</td>
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<tr>
<td>Network Density</td>
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<td>0.82</td>
<td>0.62</td>
<td>0.90</td>
<td>0.75</td>
<td>0.90</td>
</tr>
<tr>
<td>---Park Density</td>
<td></td>
<td>0.93</td>
<td>0.93</td>
<td>0.76</td>
<td>0.95</td>
<td>0.57</td>
<td>0.82</td>
</tr>
<tr>
<td>---Program Density</td>
<td></td>
<td>0.47</td>
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<td>0.86</td>
<td>0.72</td>
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<tr>
<td>---Office Density</td>
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<td>0.58</td>
<td>0.92</td>
<td>0.57</td>
<td>0.92</td>
<td>0.83</td>
<td>0.93</td>
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<td>Network Bonding Density</td>
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<td>0.59</td>
<td>0.77</td>
<td>0.57</td>
<td>0.86</td>
<td>0.76</td>
<td>0.90</td>
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<td>--</td>
<td>0.97</td>
<td>1.00</td>
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<td>0.76</td>
<td>0.71</td>
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<td>---Office Bonding Density</td>
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<td>1.00</td>
<td>0.65</td>
<td>1.00</td>
<td>0.95</td>
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<td>0.85</td>
<td>0.65</td>
<td>0.92</td>
<td>0.75</td>
<td>0.89</td>
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<td>0.00</td>
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<td>-----Park-Office Density</td>
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<td>0.57</td>
<td>0.83</td>
<td>0.65</td>
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<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
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<td>-0.09</td>
<td>-0.14</td>
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Table 11. National Park Service relationships external to the roster list provided, listed by group and city.

<table>
<thead>
<tr>
<th>External Group</th>
<th>Detroit Park</th>
<th>Program</th>
<th>Office</th>
<th>Total</th>
<th>Tucson Park</th>
<th>Program</th>
<th>Office</th>
<th>Total</th>
<th>Boston Park</th>
<th>Program</th>
<th>Office</th>
<th>Total</th>
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<tbody>
<tr>
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<td>1</td>
<td>4</td>
<td>13</td>
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<td>3</td>
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<td>Program</td>
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<td>0</td>
<td>6</td>
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<td>6</td>
<td>16</td>
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<td>16</td>
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<tr>
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<td>1</td>
<td>11</td>
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<td>2</td>
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<td>Total external relationships</td>
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<td>6</td>
<td>12</td>
<td>33</td>
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<td>14</td>
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</tbody>
</table>
Figure 8. Present and potential National Park Service networks in Detroit, Tucson, and Boston.
CHAPTER 6: EVALUATING THE NATIONAL PARK SERVICE’S COLLABORATIONS FOR RELEVANCE AND RESILIENCE IN URBAN AREAS

Target Journal: *Park Science*

6.1. Abstract

The National Park Service (NPS) conserves stories and scenery in the U.S. for the enjoyment and appreciation of all Americans. However, although they are conserved for all, they are not enjoyed by all. Striving to better engage potential stewards and the breadth of the American public, the NPS is steadily incorporating “relevance” as a main goal of its efforts. Broadening and deepening relevance is important to the NPS continuing to enhance its resilience and adaptive capacity. In a twin effort to build relevance and resilience, the NPS initiated its Urban Agenda during the agency’s centennial. This initiative aims to enhance relevance by building collaborative networks within the agency and the broader community. In this case study, the Urban Agenda’s three goals are examined with the lenses of relevance and resilience in three urban areas (Detroit, Tucson, and Boston) to illuminate areas of opportunity for the agency to further engage. After reading this case, readers will comprehend the relationships between relevance and resilience in this urban collaborative context, understand examples of how the Urban Agenda currently functions in the sites studied, and consider management questions that may assist in building relevance. Although focused on the NPS’ urban efforts, themes in this case transcend the specific agency. Conservation agencies and
community collaboratives are increasingly tasked with prioritizing relevance in their efforts. This case study provides detail on structures and processes that may be useful in these broader contexts.

6.2. Key Message

This case study is aimed at conservation organization practitioners, environment-related community collaboratives, and college students seeking to understand how to strengthen connections between parks and people. The National Park Service (NPS) is unique in its role as a federal conservation agency with an extensive urban presence. However, the relevance issues the NPS faces are common. At the conclusion of this case, the reader will understand specific ways in which the NPS is working toward relevance by using its Urban Agenda in Detroit, Tucson, and Boston; connections between relevance and resilience; and how these contexts and concepts may inform broader learning.

6.3. Introduction

The NPS strives to embody the democratic ideals of the U.S. The agency conserves our collective stories and scenery, for their intrinsic values and for the benefit of current and future generations. However, the NPS has a dilemma. Although these sites are conserved for all, they are not enjoyed by all. The NPS has a relevance issue. Like other conservation agencies, the NPS has increasingly recognized the importance of creating relevant connections with all Americans, and with racial/ethnic minorities and youth in particular. Support for conserving our stories and scenery tomorrow requires the invested stewardship of our national parks by the diverse American public today.
Because these issues often transcend a single agency, an efficient means of reaching broader audiences is through a collaborative approach with community organizations. By working collaboratively to enhance public relevance, the NPS may simultaneously enhance the resilience of the agency and local communities.

This case study examines a multi-faceted approach the NPS has taken to enhancing its relevance and resilience – the Urban Agenda. As 80% of Americans and 40% of the NPS’ portfolio is located in urban areas, these are prime areas for building relevance with large, diverse, and proximate populations. Although NPS parks and programs in urban areas tend to be less emphasized than their rural counterparts, a strong opportunity exists for them to make an outsized contribution to reaching local populations, community groups, and potential stewards. This study highlights three sites in particular – Detroit, Tucson, and Boston – and the multi-methods approach taken to evaluating NPS relevance in each.

6.4. Case Examination

6.4.1. The National Park Service Urban Agenda

A centennial NPS initiative, the Urban Agenda, expands upon this dual approach to relevance and resilience and prioritizes urban areas for further NPS investment (1). This effort adds to a growing urban investment by other federal land management agencies, including the Forest Service and the Fish and Wildlife Service, as well as urban-centric civic organizations. The NPS has recognized that linkages between relevance and national parks are not equal across geographic and social landscapes, with urban areas and communities identified as a particularly underrepresented setting and
This underrepresentation diminishes the democratic nature of the national park system and presents a context where these linkages could be strengthened, especially as the NPS embarks on a second century. As part of a forward-looking approach to address this underrepresentation, the Urban Agenda seeks to utilize pilot model urban areas to create and continuously refine a strategic and sharable practice of building and sustaining coherent systems of urban presence and relevance.

This initiative offers ways in which the NPS portfolio of parks, partnerships, and programs could be better coordinated for collaborative benefits and better integrated into the urban cityscape for use by their audience, the American public. Framed around three goals – Relevance for all Americans, Culture of Collaboration (with partners), and OneNPS (i.e., internal culture of collaboration) – the Urban Agenda explicitly centers on collaborative connections to enhance relevance.

6.4.2. Relevance

Relevance is a journey, not a destination. Because relevance is an ideal state, it is of greater practical value to emphasize progress made on the path than an actual destination reached. The concept centers on creating meaningful connections with an audience by recognizing and making plans toward a common goal (3). Examining visitor demographics is one means of assessing relevance. For example, a recent national study found that 53% of Whites had visited a national park in the past two years, compared to 32% of Hispanics and 28% of Blacks (4). This comparative underrepresentation of racial/ethnic minorities may indicate that these groups view the NPS as less relevant to their lives and leisure time than do Whites. This trend has been recognized in park and
outdoor recreation research for decades. However, relevance does not stop with racial/ethnic disparities. Building relevance with all Americans means incorporating a wide range of inclusive practices that broaden and deepen sites’ and stories’ resonance, usefulness, or applicability to people’s own experiences and quality of life (5).

6.4.3. Resilience

Diminished or extinguished relevance can be a major disruption to an organization’s functioning. Organizations that can navigate creative ways to sustain relevance are seen as more resilient, or better able to maintain their primary functions and adaptive capacity when faced with pressure or change (6,7). Two points are key to building resilience: diversity and redundancy. Through having a range of components (i.e., diversity) and multiples of each component (i.e., redundancy), a system is better poised to address opportunities, disruptions, and changes in general in resilient ways. Resilience can be examined on many levels, from the internal capacity of a single organization to the partnership capacity of a network to the systems processes of an entire city.

The Urban Agenda and all three of its goals are expressions of a desired resilience. The focus on urban areas indicates untapped potential in a niche and creative means by which to consolidate resources and fill this niche. The emphasis on relevance to all Americans is an objective to build and maintain connections within the system, even over changing conditions and disturbances. Nurturing a culture of collaboration fits with strengthening ties among actors throughout the adaptive cycle to understand the resources available, mobilize quickly in situations of opportunity, and respond collectively to
disturbances in the system. Finally, activating “OneNPS” implies a need to assess and consolidate resources within the agency, creating intra-organizational knowledge and connections so that inter-organizational ties can be more efficiently facilitated. Table 12 summarizes these linkages between Urban Agenda goals and the concepts of relevance and resilience.

6.4.4. Research Approach

To examine relevance, resilience, and the NPS in urban areas, researchers and NPS staff conducted an evaluation. Evaluation frameworks guide research to assess a program, policy, organization, or institution and contribute information to the improvement of an entity (8,9). In this way, evaluation extends research contributions and prioritizes management utility of the process and findings. This evaluation focused on a question of interest by the NPS:

What are present and potential ways in which the NPS collaboratively strives for relevance with urban communities?

To generate understanding and discussion about this question, the researchers and NPS staff decided upon a multi-site, multi-methods approach.

The study sites chosen for this investigation represent three levels on an aggregating spectrum of NPS physical presence (i.e., park/parks). First, in many cities, the NPS has a programmatic presence within the city and parks more than an hour’s drive from the city; Detroit, Michigan, represents this level of presence. Second, in a subset of these cities, the NPS also has a park adjacent to the city; Tucson, Arizona, represents this level of presence. Third, in a subset of this subset of cities, the NPS also has a park within the city; Boston, Massachusetts, represents this level of presence.
In each of these three cities, two methods of inquiry were paired to elicit and triangulate perspectives on collaborative pathways toward relevance. Qualitative, in-depth interviews with NPS staff and NPS-identified community organization partners \((n=63;\ 21\ \text{per city})\). Quantitative social network analysis with these interviewees and a broader range of NPS staff and community partners was also conducted (Detroit \(n=71\); Tucson \(n=75\); Boston \(n=38\)). Case study findings are presented below, synthesizing results across cities for each of the three Urban Agenda goals.

**6.4.5. Relevance for All Americans**

“Relevance” is interpreted differently by NPS staff and community partners. As an inherently relational term, differences in interpretation are to be expected. However, if the NPS is committed to enhancing relevance, then it is necessary to consider not only intra-agency conceptualizations of relevance, but also how those outside of the agency perceive relevance. The NPS tended to define specific sub-communities of the local population as target audiences. In particular, racial/ethnic minorities and youth were a main focus. Community partners also mentioned these sub-communities, but more often focused on the broader geographic community and how to engage all locals. Similarly, the NPS defined the common goal as agency-specific: building NPS diversity in its visitors, workforce, and sites and stories. Community partners again expanded the idea of the goal to the broader context beyond the NPS, instead relating aspects of livable cities and communities that the NPS contributes to: Stable systems and infrastructure, functioning biophysical processes, and a strong identity of place.
Each of these models of relevance on its own presents means of engaging with communities. As these models are complementary, not contradictory, the NPS may become more “value-added” to the cityscape, and thus more relevant and resilient, if it works to embed its framing of relevance within the larger scale of context relevance. The NPS may want to emphasize strategic connections that reinforce linkages between NPS diversity and livable cities and communities (e.g., employment, resource stewardship, diverse narratives represented) to work toward this embedding.

**Highlight: Detroit**

In Detroit, without a physical NPS presence in/near the city, the NPS works through programs to enhance relevance. The Motor Cities National Heritage Area is one such program. Agency staff at Motor Cities emphasized that outreach efforts centered on engaging minority groups in particular, as getting the message out there that “Here is a service for you to enjoy” was especially important in creating inclusivity with these underrepresented groups. Community partners saw value in that messaging but extended the focus to encompass the entire Detroit area. Furthermore, without a typical park “destination” for tourists, community partners stressed that reaching the breadth of the local population was especially important in forging numerous connections between people and NPS programs. Without a physical NPS park presence, some of the more NPS-focused goals (workforce and visitation) tended to be more abstract. This illuminates an opportunity for Detroit and other cities without a recognizable NPS unit because NPS and city goals are inherently more linked. For example, when Rivers, Trails, and Conservation Assistance (a NPS program) sought to hire an AmeriCorps
VISTA volunteer to assist in trail design and assessment in Detroit’s park system, it was a natural outreach to share this person with the City’s planning department and have her contribute to NPS and city goals alike for creating more welcoming features in city parks. This mindset of contribution was found throughout programs in Detroit and was summarized well by one staff:

The built environment again is an area where we have a lot of possibility to recreate ourselves differently and thoughtfully here. So to the extent that the Park Service was involved in those conversations, and bringing its own depth of experience and history to them, I think it would be very positive and would help support that for the city. (D09)

6.4.6. Culture of Collaboration

Across the three cities, the NPS was collaborating with nine different types of organizations to varying degrees: economic vitality, education, health, cultural resources, outdoor recreation, sustainability, urban design, youth, and diversity inclusion. We asked each collaborating organization about their relationship with each of the others in the NPS’ Urban Agenda partnership network for that city. At the time of the study, about 33-38% of the connections possible among partners had been made. When asked Who do you see potential for connecting with in the future? many more connections were desired – 56-66%. When the density of present connections is compared to the number of potential connections, networks in all three cities have currently realized about 60% of the desired connections. In examining who are the brokers, or the middle agents in a relationship among three organizations who might facilitate further spread and creative mixing of ideas for relevance, there was evidence of diverse connections. Across categories, brokerage among organizations of three different categories was by far the
most common. This indicates that organizations are well-connected to diverse organizations across categories, even if they are lesser connected to similar organizations within their own category. In particular, those in Economic Vitality, Cultural Resources, Outdoor Recreation, and Sustainability are well-connected. Some categories that are currently central to NPS networks (i.e., connected to the greatest number of others) do not see much potential for further expanding their roles. This indicates that the NPS may want to invest collaboration effort with categories of organizations currently not as engaged or central to the network. In all three cities, organizations in the Diversity Inclusion category expressed the most desire to be further connected into the NPS network.

**Highlight: Tucson**

The collaborative network built in Tucson by Urban Agenda staff was both broad and deep. Tucson’s network was the only one out of the three sites that had each of the nine categories represented, and also had at least three organizations per category. On average, each member in the 80 member network was connected to 30 others and would like to be connected to 52 others (74% increase over current connections). Most organizational categories were already in contact with the majority of others in their group and expressed enthusiasm for furthering connections with other categories. This implies that the NPS collaborative network in Tucson is both grounded in contacts with similar organizations to coordinate approaches as well as eager to seek further connections with others in different categories with different aims. Thus, the network in Tucson shows promise for continuing to enhance relevance and resilience.
6.4.7. OneNPS

Intra-agency relationships between parks, programs, and regional/national offices have been developed across the NPS. Most commonly, parks have relationships with other parks. Organizational structures strongly support these park-park connections, such as detail assignments (spending time working in a position in another NPS area – available to all but consistently mentioned in the context of parks), geographic and topical affinity groups with related conference calls, and the collective identity of the 417 parks being part of a National Park System. Connections between offices and between programs were less often noted, but offices did have more internal connections than did programs. Connections among the three groups were sparse and tended to focus on large, time-bound projects to engage the public. A common format was for a park to provide the resource base and staff, a program to draw in an audience through its community connections, and an office to provide permissions and guidance on the event. Paramount to the push to increase knowledge of and relationships within the NPS are the need for supportive structures, inclusive language, and explicit ties between building internal capacity for external relevance.

Interviewees and network analysis participants expressed wanting more connections to programs. Even program staff wanted to know more about other programs in their geographic area. As programs function beyond the administrative boundaries of the NPS, primarily in communities, this group in the NPS may have unique potential to function as creative, relevant edges of the agency. Furthermore, because programs encompass a heterogeneous mix of community outreach and support functions, the label of “programs” may be less of an inclusive identity than is found for parks or offices.
Although the network Boston had a higher quantity of relationships between members of the same group, there were a number of quality connections spanning across groups. In Boston, the NPS has taken the unique approach of co-locating its park and program staff in offices within the city. This has aided in the development of interpersonal relationships and facilitated connections across the diversity of parks and programs in the area. For example, staff in three programs (Blackstone River National Heritage Area, Northeast Museum Services Center, and Historic Architecture Conservation and Engineering Center) jointly trained local historical societies on collections management and preservation. Similarly, these connections supported a relevance-enhancing effort when Boston Harbor Islands National Recreation Area partnered with Rivers, Trails, and Conservation Assistance to install a temporary art exhibit and attract patrons of visual and acoustic arts to the park. Perhaps because parks and programs are co-located and have a history of success together, offices are the group that would like to build the most relationships in Boston. Despite the pronounced divisions that one respondent clearly mentioned below, staff in Boston appear to be navigating around these divisions by personal contact, a presence at NPS meetings in the local area, and an enthusiasm to know who is working on what to foster greater public relevance. This suggests that the structure is effective scaffolding, rather than strictly an impediment, for strong organizational resilience in Boston.

What has really struck me often is that [because the NPS] was built on a military structure you have these individual, standalone units. Even within those parks you have very strong organization structures. What I'm saying
is there is not “OneNPS,” there is 380 NPS' and then within that it gets
multiplied and you end with 10,000 NPS'. (B17)

6.5. Conclusion

The NPS Urban Agenda suggests collaborative pathways in which relevance and
resilience may be enhanced. In this manner, the three goals of the initiative are not of
equal weight but instead are an interlinked process. OneNPS is a type of collaboration
and, together with broader collaborative networks, offer means to work toward relevance
for all Americans. Relevance itself can be parsed on an agency, partnership, and public
level through these three goals. Figure 9 depicts these two ways of envisioning relevance.
Figure 10 depicts an overarching conceptual framework for the resilient process of
relevance incorporating layers of audiences and goals. As robust as individual instances
of collaboration for relevance and resilience are, overall the NPS has work ahead to better
understand communities’ needs and connect the public with the agency-conserved
resources. As such, this evaluation offers a suite of managerial and theoretical
implications for consideration.

1. Agency-focused relevance builds on the known strengths of the NPS and context-
focused relevance builds on the external view of community partners eager for the
NPS to achieve its own goals while contributing to the larger community.
Integrating agency-focused relevance within context-focused relevance may be an
effective framework for considering both deep and broad relevance engagements
in conservation agency collaboratives. Research to examine the utility of this
integration for empirical use and for further advancement of the concept of
relevance is warranted.
2. Identifying key brokers in networks, and where potential exists for increased brokerage, is a way to extend relevance and apply an indicator to resilience. By acknowledging present network structure and considering which organizational categories are represented across the collaborative networks, the NPS can tailor communications and outreach efforts to complement missions of these organizations and work toward common relevance goals.

3. Resilience of collaborative networks may be enhanced by both working with organizational categories that are currently central to a network’s brokerage and also working with categories that are enthusiastic for more relationships. The most targeted application of efforts, and where resilience-enhancing capacity may be greatest, is in the nexus of these two sets of organizations: those who are currently networked and still desire further connection. However, care should be taken to not exclusively focus on this subset, as this may detract from broader relevance and resilience efforts.

4. Parks, as the central group of the NPS, have more relationships within their group and resources devoted to these relationships than do offices or programs. Managers should consider ways in which to build relationships and supportive structures between groups in the agency for further resilience. It is important that the central reason for building internal capacity (external relevance) be explicitly detailed.

5. NPS programs are a key group for further investigation. These entities have the ability to connect to diverse audiences in a different yet complementary way from parks. Each has a particular function as well, indicating substantial group
diversity. As such, programs are uniquely situated to advance NPS relevance and resilience.

6. The number of relationships viewed as potential connections may be a more contextualized approach to network density than the number of possible connections. Considering the potential as “effective” maximum density, rather than the possible “absolute” maximum density, may allow for more site-specific considerations of the density of relevance-building relationships and its connection to resilience thresholds.

7. Pairing qualitative interviews with quantitative social network analysis provides complementary data and means of investigating relevance and resilience.

6.6. Case Study Questions

1. In what ways do each Urban Agenda principle resonate with you?

2. What situational variables could influence an agency’s ability to connect with local populations?

3. How may framing of a case study affect the perspectives represented? How might this case study be differently examined if a different viewpoint or methodological approach were taken?

4. Pick a city with which you have a connection or would like more information. Search the National Park Service’s websites to find what parks and programs are present in that city. Imagine you are a manager in one of these parks or programs and are looking to facilitate connections to reach more of the local population. Using the questions in Table 13 as a guide, identify strategies to address diversity and redundancy in each relevance layer.
6.7. References


Table 12. Connections between the National Park Service Urban Agenda goals and the concepts of relevance and resilience.

<table>
<thead>
<tr>
<th>Urban Agenda Goal</th>
<th>Concept</th>
<th>Relevance</th>
<th>Resilience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relevance for all Americans</td>
<td>Broad connections with potential stewards</td>
<td>Build and maintain system-wide connections</td>
<td></td>
</tr>
<tr>
<td>Culture of Collaboration</td>
<td>Deep connections with key community contacts</td>
<td>Strengthen ties to nimbly adapt, mobilize, and respond</td>
<td></td>
</tr>
<tr>
<td>OneNPS</td>
<td>Integrated connections throughout the agency</td>
<td>Consolidate internal knowledge and resources for external efficiency</td>
<td></td>
</tr>
</tbody>
</table>

Table 13. Reflection questions for managers when considering how to infuse resilience into multiple scales of relevance.

<table>
<thead>
<tr>
<th>How are we…</th>
<th>Resilience connection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Diversity</td>
</tr>
<tr>
<td>Intra-agency</td>
<td>Connecting to similar and dissimilar entities?</td>
</tr>
<tr>
<td>Partners</td>
<td>Reaching known and new organizations in our network?</td>
</tr>
<tr>
<td>Public</td>
<td>Including all local communities and destination visitors in our outreach?</td>
</tr>
</tbody>
</table>

Figure 9. Envisioning internal and context collaborations as a process toward relevance, rather than three equal-weighted goals of the National Park Service's Urban Agenda (left). Relevance is also layered collaborative interaction (NPS, partners, and public) (right).
Figure 10. Overarching conceptual framework for the process of relevance and resilience, incorporating layered audiences and goals.
CHAPTER 7: BIBLIOGRAPHY


151


155


APPENDIX A: DATA COLLECTION APPROVAL DOCUMENTATION

On 6/23/2015 1:25 PM, Ponds Foxx, Phadrea (phadrea_d_pondsfoxx@omb.eop.gov and phadrea_ponds@nps.gov) wrote:

Hi Bess,

Being at OMB has its challenges as well as its rewards. I was able to have a face-to-face conversation with our desk officer about this collection over lunch to convince of its merits. He agreed to approve it with terms of clearance described below. The terms of clearance means that there are provisions associated with this approval and he wanted to ensure that this survey design and method does not set a precedent for approval under this generic clearance. Your hard work paid off. Your collection has been approved.

On June 23, 2015 the following collection was been approved by OMB: Evaluation of National Park Service Presence in Urban Areas.

Please ensure that the control number and the expiration date are published on all of the documents associated with this collection.

**Control Number:** 1024-0224

**Expiration Date:** 10/31/2015

This collection was approved with the following limitations.

**Terms of Clearance:** The information collection request is largely outside the scope of the generic clearance under 1024-0224. It has been approved because it is a voluntary, low-burden, and uncontroversial collection that is focused on stakeholder perspectives, as are the other surveys submitted under this control number. Future collections using this survey design and analysis should be submitted with the standard 60 and 30 day comment periods.

Congratulations, I am sure that this is welcomed news.

Phadrea
Protocol Exemption Certification

TO: Elizabeth Perry
FROM: Gale Weld, Research Review Administrator
DATE OF CERTIFICATION: 23-Jul-2015
SUBJECT: CHRBSS: 16 030 Evaluation of National Park Service Presence in Urban Areas

Following IRB review of your project, it has been determined that it qualifies for exemption, as indicated below.

Exemption Category: 2

Federal Exemption: "Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior, unless: (a) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (b) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation."

This exemption is effective for the duration of the project UNLESS modifications are made that affect the original determination of exemption.

cc: Robert Manning

Note: If this project is the study of cancer or is cancer-related, it must be reviewed by the University of Vermont Cancer Center prior to any research activities.
The University of Vermont Committees on Human Research  
Research Protections Office  
University of Vermont  
213 Waterman Building  
85 South Prospect St  
Burlington, VT 05405

Re: Letter of support/permission from the agency for subject recruitment (Exempt Cover Form, Section Bb)

To Whom It May Concern,

We support and grant permission for research subject recruitment from the National Park Service and related current and potential community partner organizations on behalf of the National Park Service and the University of Vermont.

Through a task agreement with the University of Vermont, we have established a project centered on understanding how the National Park Service currently engages urban communities and areas of potential further engagement. This research has been approved by the Office of Management and Budget (Control Number: 1024 0224. Title: Evaluation of National Park Service Presence in Urban Areas). It has been approved because it is a voluntary, low-burden, and uncontroversial collection that is focused on stakeholder perspectives, as are the other surveys submitted under this control number.

This project is being led by Dr. Robert Manning in the Rubenstein School of Environment and Natural Resources. A doctoral student of Dr. Manning’s, Elizabeth Perry, is undertaking the fieldwork for this project as her dissertation research. To collect data and investigate themes related to this project, Ms. Perry will be conducting in-depth interviews and a partnership mapping survey with National Park Service personnel and urban community partners and potential partners (i.e., research subjects). We support the University of Vermont researchers in conducting this research and grant permission for them to contact potential research subjects. Research will primarily occur with potential subjects in Boston, Tucson, and Detroit. Additional contextual research may also occur with National Park Service personnel and larger scale partner organizations at the regional and national level (e.g., located in Washington, D.C.). We expect that, in total, up to 150 research subjects will be recruited for this investigation.

If you have any questions regarding the recruitment of research subjects for this investigation, please contact me at the information provided below.

Thank you,

Rebecca Stanfield McCown, Director, NPS Stewardship Institute  
54 Elm Street  
Woodstock, VT 05091  
802-457-3368 ext 19  
rebecca_stanfield_mccown@nps.gov  

The Stewardship Institute is located on the campus of the University of Vermont and the National Park Service is an agency of the Department of the Interior. The purpose of the project is to engage people in the stewardship of parks and national recreation areas and national wildlife refuges, and to work toward the maintenance of an open

167
Programmatic Review and Clearance Process
for NPS-Sponsored Public Surveys

The scope of the Programmatic Review and Clearance Process for NPS-Sponsored Public Surveys is limited and will only include individual surveys of park visitors, potential park visitors, and residents of communities near parks. Use of the programmatic review will be limited to non-controversial surveys of park visitors, potential park visitors, and/or residents of communities near parks that are not likely to include topics of significant interest in the review process. Additionally, this process is limited to non-controversial information collections that do not attract attention to significant, sensitive, or political issues. Examples of significant, sensitive, or political issues include: seeking opinions regarding political figures; obtaining citizen feedback related to high-visibility or high-impact issues like the reintroduction of wolves in Yellowstone National Park, the delisting of specific Endangered Species, or drilling in the Arctic National Wildlife Refuge.

Submission Date: April 12, 2015

Project Title: Evaluation of National Park Service Presence in Urban Areas

Abstract (not to exceed 150 words)
The researcher will conduct an evaluation of the NPS’ presence in urban areas. The sample for this study will be a NPS-provided list of 600 stakeholders in three urban areas. A partnership map will be developed by conducting an exercise with these stakeholders. This exercise will provide information about the strength and direction of relationships with other NPS-identified partners in the area. Also from this sample, semi-structured interviews will be used to collect information from 72 key stakeholders within the local communities. Interviewees will be asked about their experiences and expectations pertaining to the NPS’ local presence. The findings from this collection will be used to document the ability of the NPS to build relevant connections with local, urban communities.

Principal Investigator Contact Information
Name: Robert Manning
Title: Professor
Affiliation: University of Vermont
Address: Aiken Center; 81 Carrigan Drive; Burlington, VT 05405
Phone: 802-656-6096
Email: robert.manning@uvm.edu

Park or Program Liaison Contact Information
Name: Rebecca Stanfield McCown
Title: Program Manager
Park: Stewardship Institute
Address: 54 Elm St; Woodstock, VT 05091
Phone: 802-457-3368 ext 19 (office); 802-280-5975 (cell)
Email: rebecca_stanfield_mccown@nps.gov
Where will the collection take place? (Name of NPS Site) Boston (MA), Tucson (AZ), and Detroit (MI)

Sampling Period
Start Date: June 1, 2015
End Date: May 31, 2016

Type of Information Collection Instrument (Check ALL that Apply)
☐ Mail-Back Questionnaire  x  Face-to-Face Interview  ☐ Focus Groups
☐ On-Site Questionnaire  x  Telephone Survey  ☐ Other (list)

Will an electronic device be used to collect information?
☐ No  x  Yes – 1) Interviews – digital audio recorder;
2) Partnership mapping – computer program

Survey Justification:
Social science research in support of park planning and management is mandated in the NPS Management Policies 2006 (Section 8.11.1, “Social Science Studies”). The NPS pursues a policy that facilitates social science studies in support of the NPS mission to protect resources and enhance the enjoyment of present and future generations (National Park Service Act of 1916, 38 Stat 535, 16 USC 1, et seq.). NPS policy mandates that social science research will be used to provide an understanding of park visitors, the non-visiting public, gateway communities and regions, and human interactions with park resources. Such studies are needed to provide a scientific basis for park planning and development.

Management Justification: Initiated in April 2015, The NPS’ Urban Agenda, was developed to: 1) extend the NPS’ relevancy to all Americans, 2) emphasize all NPS parks and programs, and 3) nurture a culture of collaboration. A pilot program has been created to determine how the agency functions in an urban context, what natural connections the agency has with the surrounding communities, what perceptions and preconceived notions the communities have about the agency, and where partnerships may be developed or enhanced to make relevant connection between the agency and the community.

NPS managers are interested in evaluating the outcomes of the Urban Agenda’s pilot programs to have information needed to fully deploy the program. This collection is intended to gather information that will be used to describe three urban communities’ relationships with NPS programs from the perspective of local stakeholders and community partners. This information is currently unknown. To ascertain this information, we will use dual data collection methods to provide data to the NPS.

We acknowledge that this collection seems to be outside the scope of the programmatic approval process. However, we are requesting consideration for approval based on the following connections to the general spirit of the generic clearance. The information is non-controversial and will provide an awareness of:

1) characteristics and knowledge of the stakeholders and communities using the services offered by the NPS in the sample areas;
2) current preferences and attitudes about the NPS programs offered by focusing on topics connected to the Urban Agenda; and
3) services and facilities needed to fully implement the NPS Urban Agenda program.

Social science research is needed to provide an understanding of the perceptions and values that are often unarticulated by local residents in urban areas. Interviews with stakeholders will provide the NPS with a point of view that will be immediately applicable to the implementation of the Urban Agenda program.
Survey Methodology

(a) Respondent Universe:

The universe for this collection will be selected stakeholders and community leaders in three urban areas: Boston (MA), Tucson (AZ), and Detroit (MI). The NPS will provide a list of names of 600 (200 x 3 sites) stakeholders and community leaders who are active in NPS programs and knowledgeable about the communities they serve. This list of names will include all partners and comprise the entire universe for the partnership mapping and interviews. Everyone on this list will be asked to participate in the partnership mapping. Additionally, the NPS will select 72 (24 x 3 sites) known partners from this list to participate in the interview and a prioritized set of backup names for each site from this list, in the event that any of the original 24 decline participation. The interviewees will be asked to do the interview at the same time they are asked to do the partnership mapping.

(b) Sampling Plan/Procedures:

This study uses two sampling procedures and a modified Dillman approach to recruitment.

Sample 1: Interview and Partnership Mapping

The 72 (24 x 3 sites) NPS-identified interviewees on the list will be asked to participate in the interview and partnership mapping. We will email the 72 people recruited for both activities with details about the study, a request for participation in both activities, and our email and telephone contact information. For those who respond (via email or telephone) to this initial contact and agree to participate, we will use their preferred communication mode (email or telephone) to set up a time to do the activities. If a participant declines participation in the interview or has not responded after 10 days, we will email the next NPS-identified backup name for that site. We will continue down this prioritized list until 24 participants from each site agree to be interviewed. If we exhaust the original and backup lists of potential interviewees without reaching 24 per site, we will systematically call these individuals, encouraging participation. For those who agree to participation during this second contact, we will conduct the partnership mapping and/or interview during this telephone call or schedule a time to do the activities. We will also ask all individuals declining to participate if they would be willing to answer one question about their organization’s relationship with the NPS.

Sample 2: Partnership Mapping Only

Each person on the list will be asked to participate in the partnership mapping. After we have scheduled the interviews and partnership mappings for a site (Sample 1), we will email the remaining uncontacted names on the list for that site to participate in the partnership mapping only. The contact email will contain details about the study, a request for partnership mapping participation, and our email and telephone contact information. For those who respond (via email or telephone) to this initial contact and agree to participate, we will use their preferred communication mode (email or telephone) to set up a time to do the activity. Our goal is for 300 people (100 x 3 sites) to participate in the partnership mapping (including those who participate in both the interview and mapping). If we are unable to reach our goal of 100 people per site through Sample 1 and 10 days after contacting Sample 2, we will call the remaining names on the list for that site, encouraging participation. For those who agree to participate during this second contact, we will use this telephone call to conduct the mapping activity or schedule a time to conduct it. We will continue to make telephone calls until 100 people per site agree to complete the mapping activity. We will also ask all individuals declining to participate to answer three questions that will be used in the non-response bias analysis (see item e below).
(c) **Instrument Administration:**
The two modes to collect information are described below. The findings from both modes will be summarized in a report for the NPS as well to fulfill the requirement of a doctoral dissertation.

**Interviews**
One-on-one interviews will be used to provide information. We will solicit participation as described in item b above. During the communication to confirm participation, we will establish a location and time for an interview. We will be on-site in each of the three study locations for two, two week periods and will provide respondents with these dates. For on-site interviews, a mutually agreed upon location (e.g., participant’s office, public library, public park) and time will be used for the interview. In the event that we cannot schedule a face-to-face interview (primary mode) during the on-site sampling periods, we will schedule a time to conduct a telephone interview (secondary mode). If an interview cannot be scheduled, we will ask the three non-response bias check questions at that time. For both modes will be guided by a set of interview questions. We will begin each interview by explaining the purpose of the data collection and asking permission to record the interview for accurate data transcription. We will also take written notes during the interview. The interview is expected to last up to 90 minutes. We will ask the participant about their experiences with the NPS in the urban area and related topics of importance to NPS managers. The interview will conclude at the end of 90 minutes or when all questions on the interview guide have been answered, whichever comes first. At the end of the interview, we will ask if the interviewee has any questions for us, thank them for their participation, and provide our contact information again for any participant-initiated follow-up. Once the information collection process for the study is complete and all interviews have been transcribed, the audio recordings and contact information from each interview will be deleted.

**Partnership Mapping**
Partnership mapping has been used successfully to provide stakeholder analyses in a variety of decision-making contexts, such as describing NPS National Heritage Area community partnerships, Chicago-area wetland conservation networks, and environmental stewardship group connections in Seattle and Baltimore. This mapping exercise will create a visual representation of urban NPS partnership networks based on the perceptions of local community stakeholders. It uses an interactive, on-line tool to plot the perceived characteristics of NPS-partner relationships. We will solicit participation as described in item b above. During the communication to confirm participation, we will establish a time for the mapping activity and email each participant a unique url that will be required to access the tool. The exercise will be conducted during a telephone call or in-person following the interview process. It will begin with the researcher and participant accessing the tool via the interactive and shared-view url on their personal computers. The researcher will describe the tool and exercise. The participant will be asked to consider their organization’s relationship with the site-specific NPS partners listed on the left and move each partner to one of three general places on the right: 1) one of 15 boxes indicating the strength and direction of the relationship; 2) one of two boxes indicating the potential for a future relationship; or 3) a box indicating that they are unfamiliar with that partner. While explaining the process, it will be simultaneously demonstrated using split screens. The activity will take about 20 minutes to complete. We will then ask if the participant has any questions for us, thank them for their participation, and provide our contact information again for any participant-initiated follow-up. The results will be saved using a dedicated url for this study.
(d) Expected Response Rate/Confidence Levels:
We expect to contact a total of 600 individuals (approximately 200/site) for the interviews and partnership mapping. We anticipate that a total of 360 individuals (120/site) will agree to participate during the sampling period. We will not attempt to generalize the results beyond the sample population.

<table>
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<tr>
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<th>Number of Initial Contacts</th>
<th>Expected Response Rate</th>
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<tr>
<td>Interviews and Partnership Mapping</td>
<td>600</td>
<td>60%</td>
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</tbody>
</table>

(e) Strategies for dealing with potential non-response bias:
Although non-response bias is a lesser issue in qualitative methodologies, it may still occur. Therefore, we will attempt to ask all individuals contacted for an interview to answer the following questions that will be used for respondent/non-respondent bias comparison.

1. Would you please describe your experience working with your organization?
2. Would you please describe your experience working with the NPS?
3. What do you consider to be your organization’s greatest strength to lend to collaborations?

All individuals contacted for the partnership mapping will be asked:

1. Would you please characterize the strength (not at all strong, medium strong, or very strong) and direction (all giving, mostly giving, equal mix, mostly receiving, or all receiving) of your relationship with the NPS?
2. Which, if any, NPS programs have you heard about in this urban area?
3. What would you consider your organization’s main area of focus?

If bias is detected in either mode of data collection, we will describe the characteristics and potential implications of the bias, if any, in the report and dissertation.

(f) Description of any pre-testing and peer review of the methods and/or instrument (recommended):
This study is part of a student’s doctoral dissertation research and as such this form and the study design (methods and instruments) have been reviewed, commented on, and approved by four interdisciplinary University of Vermont faculty members and the NPS Stewardship Institute staff. The NPS staff have also reviewed and approved the overall management relevance and applicability of the study design.

Burden Estimates

We expect that the total burden for this collection to be 350 total burden hours.

Interviews: Overall, we expect that 72 individuals will agree to participate in the interview. Individual interviews will last up to 90 minutes (72 x 90 minutes = 108 hours). For those completing both an interview and a partnership map, we will offer the option of separate sessions (at the discretion of the respondent) as effort to not over burden the respondent in one sitting.

Partnership Mapping: We would like 300 completed maps at the end of this study, including those from participants completing both interviews and maps. For the 300 individuals agreeing to participate in the mapping exercise, it will take about 20 minutes to complete the process (300 x 20 minutes = 100 hours).
<table>
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</table>

**Reporting Plan**

This information collection activity will result in a doctoral dissertation at the University of Vermont. Data will be examined using qualitative open coding of themes (interviews) and quantitative social network analyses of interconnectedness (partnership mapping). The results of these will be synthesized to provide information on site-specific findings and cross-site comparisons relevant to the NPS Urban Agenda initiative. A summary report (< 10 pages) will be submitted as the final project report to the NPS. It will be archived with the Social Science Program of the National Park Service for inclusion in the Social Science Studies Collection. In addition, the study findings may be published in a peer-reviewed journal article(s), internal agency report(s), and/or other formats.
APPENDIX B: DATA COLLECTION RECRUITMENT SCRIPTS

Information Sheet for Interviewees in a Study Exploring the National Park Service’s Presence in Urban Areas

At the request of the National Park Service Stewardship Institute, Elizabeth Perry, a doctoral student in Natural Resources from the University of Vermont, is conducting a study of the National Park Service’s presence in urban areas. The purpose of this study is to learn more about the current workings of National Park Service parks, programs, and partnerships in urban areas by gathering and analyzing the perspectives of representatives from local organizations and NPS staff members. This research will focus on three urban areas: Boston, Tucson, and Detroit.

Study findings will be used to document the National Park Service’s efforts in your area and across urban locations. The findings will help enhance the coordination and management of National Park Service parks, programs, and partnerships as well as improve the ability of the National Park Service to build relevant connections with local, urban audiences. The findings will be included in a doctoral dissertation and excerpts may be used in presentations, publications, and other informational materials disseminated by the National Park Service (and, in particular, the Stewardship Institute). In addition, the findings may be included in peer-reviewed journal articles.

You are being invited to take part in this research because your organization has been identified by National Park Service staff as a current or potential partner. As a result of your interactions with and connections to the National Park Service, you are in a unique position to describe the related parks, programs, and partnerships in the local area and how they affect organizations like yours within the region. The purpose of the interview is to gather your perspectives on how the National Park Service operates within partnerships in this context.

(OONE OF THE FOLLOWING WILL BE INSERTED)

For in-depth interviews and partnership mapping activity:
The interview will last approximately 60-90 minutes and will be conducted in person or over the telephone. A maximum of 30 individuals will be interviewed from each urban area, and the responses will be combined for the study. For this interview, the researcher will ask the interviewee to respond to a series of open-ended questions and also to take part in an activity that maps partnerships in your area. The mapping activity will be done on the computer. No individual names will appear in the written report or presentations unless the researcher checks back with you first and receive your explicit, written permission to do so. If you have any questions during the interview, please feel free to ask. If there’s anything you do not wish to answer, please say so.

For partnership mapping activity only:
The interview will last approximately 20 minutes and will be conducted over the telephone. A maximum of 85 people will be interviewed from each urban area, and the responses will be combined for the study. For this interview, the researcher will ask the participant to respond to an activity that maps partnerships in your area over the telephone. The activity will be done on the computer via a file on Google Drive, shared with the researcher and participant. An Internet connection is required for this activity. No individual names will appear in the written report or presentations without explicit consent of the individual. If you have any questions during the activity, please feel free to ask. If there’s anything you do not wish to answer, please say so.

The Paperwork Reduction Act requires approval of all federal government surveys (including interview-based studies) by the Office of Management and Budget. This survey has been approved under this Act. The Office of Management and Budget control number and expiration date are listed below.* Your participation is voluntary and you may refuse to participate or withdraw at any time without penalty or prejudice.

174
Finally, I am requesting your permission to digitally record the interview conversation. It is very important to capture your words exactly as you say them. If at any time during the interview you would like the voice recorder to be turned off, please say so. Recorded conversations will be transcribed and analyzed. The audio files will be deleted and your name removed from the transcript once the study has concluded. You will be sent a draft copy of the study findings for your review.

*OMB Approval number: 1024-0224
Expiration Date: 10/31/2015

Person Collecting and Analyzing Information:
Elizabeth Perry
Rubenstein School of Environment and Natural Resources
81 Carrigan Drive
University of Vermont
Burlington VT 05405
541-224-7639
elizabeth.perry@uvm.edu

16 U.S.C. 1a-7 authorizes collection of this information. This information will be used by park managers to better serve the public. Response to this request is voluntary. No action may be taken against you for refusing to supply the information requested. The permanent data will not have your telephone number recorded.

You may direct comments on the number of minutes required to respond, or on any other aspect of this survey to:
Rebecca Stanfield McCown, Program Manager
Stewardship Institute
54 Elm Street
Woodstock, VT 05091
802-457-3368 ext 19
rebecca_stanfield_mccown@nps.gov
Recruitment Script for Initial Contact with Potential Interviewees:
In-depth Interview and Partnership Mapping Activity

Hello, my name is Elizabeth Perry. I’m working with the National Park Service Stewardship Institute located at Marsh-Billings-Rockefeller National Historical Park in Woodstock, Vermont. We’re working together to conduct a study of the National Park Service presence in urban areas. This study is designed to gather different perspectives on urban parks, programs, and partnerships.

I received your name from (URBAN FELLOW, LOCAL NPS STAFF, OTHER INTERVIEWEE). They’ve identified your organization, (ORGANIZATION), as a (CURRENT/POTENTIAL) partner. We would like to include your perspectives in this study to help us understand the National Park Service’s role in (URBAN AREA).

As you may know, the National Park Service is implementing an Urban Agenda to focus greater attention on urban areas. This study is a part of that effort. (URBAN AREA) is one of the cities that we’re looking at in particular, along with (URBAN AREA) and (URBAN AREA).

I’m a doctoral student at the University of Vermont, working with Bob Manning in the Park Studies Laboratory. I’m conducting this study at the request of the National Park Service. I’ll also be using parts of this study for my dissertation research. I’ll be handling the data collection and analysis, and I’m planning to interview about 25 individuals in (URBAN AREA) to gather a variety of perspectives. I’d be really interested in hearing about your experiences, including:

- Your connections with the National Park Service
- Your connections with other partner organizations in (URBAN AREA), and
- Any suggestions you may have for improving the coordination and management of parks, programs, and partnerships and for enhancing the National Park Service’s ability to build relevant connections with local, urban audiences.

The study findings will document the current efforts of the National Park Service and an array of partnership organizations in (URBAN AREA). In addition, we’ll be exploring what’s unique to (URBAN AREA) and also looking for any patterns that emerge across the three urban areas included in this project.

I will be in (URBAN AREA) from (DATE to DATE) and will be conducting interviews in-person. I will also be conducting interviews over the phone thereafter. The interviews are designed to be conversational in nature and each is expected to last approximate 60 to 90 minutes.

Would you be willing to speak with me? We think your perspectives would be very helpful to include in this study. If you are interested in speaking with me, please let me know (elizabeth.perry@uvm.edu or 541-224-7639) and we’ll set up a time to talk. We can discuss the study further at that point, and I will provide you with an Information Sheet that describes the research in greater detail. If you are not interested or don’t have the time, I would appreciate a quick email response (elizabeth.perry@uvm.edu) saying so.

Thank you,
Elizabeth
Recruitment Script for Initial Contact with Potential Interviewees:
Partnership Mapping Activity Only

Hello, my name is Elizabeth Perry. I’m working with the National Park Service Stewardship Institute located at Marsh-Billings-Rockefeller National Historical Park in Woodstock, Vermont. We’re working together to conduct a study of the National Park Service presence in urban areas. This study is designed to gather different perspectives on urban parks, programs, and partnerships.

I received your name from National Park Service staff (URBAN FELLOW, LOCAL NPS STAFF NAMES). They’ve identified your organization, (ORGANIZATION), as a current partner. We would like to include your perspectives in this study to help us understand the National Park Service’s role in partnership networks in (URBAN AREA).

As you may know, the National Park Service is implementing an Urban Agenda to focus greater attention on urban areas. This study is a part of that effort. (URBAN AREA) is one of the cities that we’re looking at in particular, along with (URBAN AREA) and (URBAN AREA).

I’m a doctoral student at the University of Vermont, working with Bob Manning in the Park Studies Laboratory. I’m conducting this study at the request of the National Park Service. I’ll also be using parts of this study for my dissertation research. I’ll be handling the data collection and analysis, and I’m planning to interview about (NUMBER) individuals in (URBAN AREA) to gather a variety of perspectives. I’d be really interested in hearing about your connections with the National Park Service and other local organizations, as well as any suggestions you may have for how partnerships could be improved.

The study findings will document the current array of National Park Service and partnership organization interactions in (URBAN AREA). In addition, we’ll be exploring what’s unique to (URBAN AREA) and also looking for any patterns that emerge across the three urban areas included in this project.

I will be conducting interviews over the phone starting (DATE). The interview is expected to last approximately 20 minutes and will center on an Internet-based activity that will help me better understand the partnership networks in (URBAN AREA).

Would you be willing to speak with me? We think your perspectives would be very helpful to include in this study. If you are interested in speaking with me, please let me know (elizabeth.perry@uvm.edu or 802-656-6095) and we’ll set up a time to talk. We can discuss the study further at that point, and I will provide you with an Information Sheet that describes the research in greater detail. If you are not interested or don’t have the time, I would appreciate a quick email response (elizabeth.perry@uvm.edu) saying so.

Thank you,
Elizabeth
APPENDIX C: DATA COLLECTION INSTRUMENTS

PAPERWORK REDUCTION ACT STATEMENT: The National Park Service is authorized by 16 U.S.C. 1a-7 to collect this information. This information will be used by National Park Service managers to understand the public’s perceptions about and engagements with National Park Service parks, programs, and partnerships in urban areas. Response to this request is voluntary. No action may be taken against for refusing to supply the information requested. The permanent data will be anonymous. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

BURDEN ESTIMATE statement: Public reporting burden for this form is estimated to be 90 minutes per completed response. Direct comments regarding the burden estimate or any other aspect of this form to: Rebecca Stanfield McCown, Program Manager, Stewardship Institute, 54 Elm St, Woodstock, VT 05091; 802-457-3368 ext 19; rebecca_stanfield_mccown@nps.gov (email).

Interview

Hi ______, thank you for speaking for me today. Today I’d like to hear about your opinions about and experiences with the NPS parks, programs, and partnerships in your area. There are nine questions and it should take about 90 minutes. Let’s get started.

1. Please describe your experience and what you do and your experiences in your organization?

2. Please describe your organization’s history with the NPS.

3. How would you describe the NPS presence in the region?
   Probe: Which, if any, sites and/or programs are you familiar with?

4. What impact has the NPS had on your organization’s area of focus?

5. In your opinion, what do you think is the ideal role for the NPS to play in serving the public and surrounding communities?
   Probe: What do you think are some of the strengths and assets the NPS has to offer?

6. When thinking about work accomplished with partners, what initiatives come to mind as being particularly successful?

As you may know, the NPS is implementing an Urban Agenda that is focused on understanding their presence and involvement in urban areas like this one.

7. The following three principles have been laid out for the Urban Agenda:
   - Be relevant to all Americans,
   - Activate “OneNPS” (integrate/emphasize all NPS parks, programs, and partnerships), and
   - Nurture a culture of collaboration.
   Please tell me, how you see these principles integrating with your work?

8. A goal of the Urban Agenda is to contribute to resilient cities. What ways do you see the NPS contributing to the resiliency in this area?
   Probe: What components do you think are needed for this area to be a resilient city?

9. This project is just getting started. How would you like to see an Urban Agenda implemented here?
   What would it take for it to be successful?

Do you have any questions?, If you should have any later on today please feel free to contact me at (541) 224-7639. Thank you for your time and input.
**Partnership Mapping** (Figure 11 and Figure 12)

Hi _____, thanks for speaking with me today. Today, we’ll do an exercise that asks you to think about your relationships with the NPS and other organizations in the area. It should take about 20 minutes.

As you know, the NPS interacts with many organizations, including yours. They’re interested in learning more from partners about successful relationship strategies and networks. For today’s exercise, I want you to plot out your relationships with other NPS-identified partners on an interactive map. You should have received a link to this interactive mapping tool, yes? Let’s pull it up together *(template below)*.

OK, here’s what you’ll do. You’ll move each “partner” from the “Available Partners” location on the left to one of the locations on the right. You have three general areas to decide among for where you’ll move each partner:

1. If a relationship exists, decide how you’d characterize the level and direction of the relationship using the yellow, green, and blue boxes at the top. Level refers to how you perceive the strength of the relationship, from conversation to collaboration. Direction refers to the exchange of inputs and outputs for your organization in the relationship *from your point of view*. This is the give and take, from you doing more giving in the relationship to more receiving in the relationship, or a balance/equal exchange.

2. If a relationship does not exist, decide how you’d characterize the future partnership potential, whether you do or do not consider an organization a potential partner using the purple or red box.

3. If you’re unable to decide among any of those locations because you’re unfamiliar with a partner, there’s a map location, the orange box, for that response.

[Walk participant through each of these options by moving their organization’s box around as the directions are stated. Then proceed to show how the researcher would place the box for their organization, that they are helping the researcher (more receiving) and that there has been some communication but not a lot (conversation or cooperation).]

Do you have any questions?

I’ll stay on the phone, in case you have any questions while completing the exercise.

Let’s begin.

*After exercise:* Do you have any questions? If you should have any later on today please feel free to contact me at (541) 224-7639. Thank you for your time and input.
Figure 11. Interactive, Internet-based social network analysis data collection tool.
## Descriptions of Levels of Collaboration

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<th>Title</th>
<th>Description</th>
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<tbody>
<tr>
<td>1</td>
<td>conversation</td>
<td>Aware of organization; Loosely defined roles; Little communication, networked for referrals only; All decisions are made independently</td>
</tr>
<tr>
<td>2</td>
<td>cooperation</td>
<td>Provide information to each other; Somewhat defined roles; Formal communication; All decisions are made independently</td>
</tr>
<tr>
<td>3</td>
<td>coordination</td>
<td>Share information/resources; Defined roles; Frequent communication; Some shared decision making</td>
</tr>
<tr>
<td>4</td>
<td>coalition</td>
<td>Share ideas/resources; Frequent and prioritized communication; Shared decision making</td>
</tr>
<tr>
<td>5</td>
<td>collaboration</td>
<td>Members belong to one system; Frequent communication, characterized by mutual trust; Consensus is reached on all decisions</td>
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*Figure 12. Social network analysis scale definitions available to participants. Based on collaboration levels in Frey et al., 2006.*