Alleviating Park Visitation Constraints through Agency Facilitation Strategies

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Abstract

Few studies have examined whether and how park and recreation non-users might respond to agency strategies that seek to mitigate the severity of constraints and facilitate more frequent use of parks The purpose of this study was to determine under what conditions changes in park delivery might result in people expressing interest in visiting parks and how infrequent visitors with different constraint profiles supported these potential changes. Using data from a telephone survey of residents in Northeast Ohio, we found that individuals most likely to respond favorably to various agency facilitation strategies were ones who reported they were transportation constrained and who indicated they were dissatisfied with their current level of park visitation.

KEYWORDS: Leisure Constraints, Leisure Affordance, Constraints Negotiation, Agency Facilitation Strategies, Urban Parks

Introduction

A fairly large body of research now exists about the factors that constrain people's use of leisure services and public park amenities (e.g., Crompton & Kim, 2004; Gobster, 1998; Jun, Kyle, & Mowen, 2009; Kerstetter et al. 2002; Mowen, Payne, & Scott, 2005; Scott & Munson, 1994). This research can potentially aid leisure service practitioners' efforts to make agency offerings accessible and interesting to underserved constituents (Jackson & Scott, 1999; McGuire & O'Leary, 1992; Scott, 2005). Understanding leisure constraints is particularly important for publicly funded park and recreation agencies whose mandate is to serve a broad array of tax payers and to provide a wide variety of individual and societal benefits. The long-term viability of public leisure service agencies may well depend on their becoming relevant to groups who have historically not made greater use of agency programs and services. Although researchers have done a good job of identifying general factors that constrain park visitation, less is known about what practitioners can actually do to facilitate increased participation. Researchers (and practitioners) frequently assume the removal of a constraint will lead to increased participation or visitation. This assumption remains largely untested, particularly among infrequent users of parks. Further research is needed to understand the conditions under which the removal of a park use constraint is likely to lead to greater visitation. Moreover, understanding constituents' preferences for agency strategies to mitigate constraints and facilitate park visitation could provide insights for park policy makers and managers as they seek to better meet the needs of underserved populations.

Literature Review

Goodale and Witt (1989) noted interest in leisure constraints goes back, at least implicitly, to the founding of government involvement in park and recreation delivery:

> For about a century, the park and recreation movement represented an effort to overcome barriers to participation through the direct provision of facilities and services. The rapid transition from rural, agrarian communities to an urban industrial society resulted in decrements of opportunity to make recreational use of free time and cope with the growing segmentation of time and space. (p. 422)

Scholarly interest in constraints can be traced back to the 1960s when researchers sought to explain why some population groups reported higher rates of outdoor recreation participation than others. Researchers demonstrated participation and non-participation in outdoor activities was partly a function of the availability and quality of recreation opportunities (Clawson & Knetsch, 1966; Knetsch, 1969). Researchers subsequently argued much of the demand for outdoor recreation is *latent* or *suppressed* as people lack personal resources and/or there is an absence of accessible facilities and resources (Jackson & Dunn, 1988; McClellan & Menrich, 1969; Rodgers, 1973; Wall, 1981). Researchers, policy makers, and practitioners have long assumed that latent demand can be converted to participation if

constraints can be identified and overcome. Hendee (1969), for example, observed "groups long denied recreation opportunities, not only by virtue of their residence but because of poverty, ignorance, or segregation, might become participants in available opportunities if these barriers are removed" (p. 335).

Early studies embraced the idea that constraints intervened between preferences and participation. The Outdoor Recreation Research Commission (ORCCC) was one of first efforts to document "barriers" to participation. In this case, Americans were asked about what factors kept them from participating in outdoor recreation as often as they would like (Mueller & Gurin 1962). Other studies sought to document the factors that contributed to withdrawal from sports (Boothby, Tungatt, & Townsend, 1981), non-participation in desired activities (Jackson, 1983; Searle & Jackson, 1985), lack of enjoyment of current activities (Witt & Goodale, 1981), and non-use of municipal park and recreation services (Godbey, 1985; Howard & Crompton, 1984).

In the 1ate 1980s and early 1990s, two important changes took place in the way researchers conceived leisure constraints. First, researchers began to understand constraints could be internal and impact both leisure participation *and* leisure preferences. Crawford and Godbey (1987) argued that many constraints are *intrapersonal* (e.g., personality needs, religiosity, and prior socialization), which lead people to define leisure activities and locales uninteresting or inappropriate. Henderson, Stalnaker, and Taylor (1988) introduced a similar idea in the form of *antecedent* constraints. A second major change researchers recognized was many people participate in activities and visit locales despite encountering or perceiving constraints (Kay & Jackson, 1991; Shaw, Bonen, & McCabe, 1991). The idea here is people actively negotiate constraints they come across (Jackson, Crawford, & Godbey, 1993; Scott, 1991). Recent studies have shown people who are highly motivated to participate in leisure activities are likely to exert much effort in negotiating the constraints they encounter (Hubbard & Mannell, 2001; Lee & Scott, 2009; White, 2008).

Non-use of Public Parks

Ideas about constraints have also been used to explore why people do not make greater use of public park and recreation services. These studies have focused on slightly different facets of non-participation. On the one hand, some studies have examined factors that thwart people from using various park and recreation facilities and/or services, including golf courses (Gobster, 1998), nature centers (Rideout & Legg, 2000), museums (Hood, 1983; Jun, Kyle, & O'Leary, 2008), and swimming pools, community centers, and playgrounds (Godbey, 1985; Howard & Crompton, 1984; Schroeder & Wiens, 1986). Other studies, in contrast, have examined constraints to local or regional parks (Arnold & Shinew, 1988; Jun, Kyle, & Mowen, 2009; Mowen et al., 2005; Scott & Jackson, 1996; Scott & Munson, 1994).

Some general findings can be gleaned from the above studies. One is time constraints and work/family commitments are the most frequently cited reasons why people do not make greater use of a whole range of park and recreation services. Second, lack of information and insufficient interest thwarts people's use of specialized facilities, such as museums (Hood, 1983), golf courses (Gobster, 1998),

and public swimming pools and community centers (Godbey, 1985; Howard & Crompton, 1984). Third, some constraints are more acutely felt by some population groups than others. For example, safety concerns are commonly cited obstacles to women's use of urban parks (Arnold & Shinew, 1998; Scott & Jackson, 1996). Similarly, many poor people say they do not visit parks because they are located too far from home or they lack access to public transportation (Mowen et al., 2005; Scott & Munson, 1994).

As alluded to above, constraints research is grounded in the assumption that latent demand for park and recreation services can be converted to participation if the impacts of constraints can be eased. Few studies, however, have actually sought to address whether or not non-participants or infrequent visitors would use parks if the constraints were lessened in severity through a variety of facilitation strategies targeted to intrapersonal, interpersonal, and structural conditions. Three studies from Northeast Ohio examined people's interest in visiting parks given various changes in park delivery (Mowen et al., 2005; Scott & Jackson, 1996; Scott & Munson, 1994). In the most recent of these studies, Mowen et al. reported 70% of non-users or infrequent users of parks in Northeast Ohio said they might use parks more if they had more information about parks and park offerings. Over 50% said they might use parks more often if they were made safer or if more activities were provided in parks. These studies represent a first effort to understand how park and recreation agencies might help people negotiate constraints to participation and facilitate more frequent use of public parks.

The idea that constraints can be negotiated through facilitation efforts carried out by park and recreation agencies is related to (but not identical with) the concept of *leisure affordance*. Affordance, as developed originally by Gibson (1977, 1979), refers to environmental cues that offer the person a set of possible behaviors. Adapting the idea to leisure, Mannell and Kleiber (1997) referred to leisure affordances as those "social and physical environmental conditions that are conducive to leisure behavior" (p. 345). Elsewhere, Kleiber, Wade, and Louks-Atkinson (2005) explained that a leisure affordance is some facet of the perceived environment that suggests a range of opportunities. A similar idea was put forward by Raymore (2002) in the form of *structural facilitators*, which include facilities and institutions, external to the individual, that "enhance the formation of leisure preferences and encourage … participation in leisure" (p. 43). Leisure affordance could include an accessible and safe park, good weather, appealing trails, wildlife, and interesting programs (Pierskalla & Lee, 1998).

Although people consciously and unconsciously make judgments about these and other affordances, park and recreation agencies are in good position to facilitate increased park visitation via changes in programming and park design. The idea here is to create opportunities for behavior where previously there was none (Mannell & Kleiber, 1997). It is important to note, however, not all agency facilitation strategies are leisure affordances. For example, park and recreation agencies may provide non-participants information about programs and parks near where they live. They may also enhance people's skills that enable them to participate in activities which may be otherwise unavailable to them. In both of these examples, agencies are *attuning* (Greeno, 1994) non-participants about the opportunities

available to them rather than creating actual affordances. As noted by Kleiber, Walker, and Mannell (2010), for any actual creation of affordance to occur, there must be some re-design or re-engineering of the physical environment.

It is likely that infrequent visitor of parks will react favorably to affordances if they are perceived as being important and relevant to their interests. This is consistent with the idea that people are more likely to employ negotiation strategies when they encounter constraints if they are highly motivated to participate in a leisure activity (Crawford, Jackson, & Godbey, 1993; Hubbard & Mannell, 2001). Park managers, thus, may make parks more attractive to infrequent visitors and allay constraints that they encounter through changes in programming and park delivery, but such strategies are likely to be most effective if would-be visitors first expressed an interest in visiting parks or visiting them more frequently. Simultaneously, some infrequent visitors may feel so heavily burdened by constraints that no amount of change in park delivery would result in increased interest in visiting parks. As noted by Kleiber et al. (2005), "By manipulating the environment… leisure providers may be able to create an even greater range of opportunities, but they will only be realized if *potential actors are sensitized to the possibilities*" [italics added] (p. 235).

Purpose of Study

Researchers have documented major constraints to park visitation and how constraints vary across population groups. Little research, however, exists that examines how park and recreation users and non-users might respond to affordances and agency facilitation strategies that seek to allay the severity of constraints to park visitation. That is, can agencies modify park delivery in such a way as to help people negotiate constraints that keep them from visiting parks more often? The purpose of this study was to determine under what conditions changes in park delivery might result in people expressing interest in visiting parks. Three research questions guided our investigation. First, is there a relationship between people's perceived constraints to visiting parks and their reported desire in visiting parks or visiting them more often? Second, is there an association between the park constraints expressed by people and their support for potential agency facilitation strategies which might help them negotiate those constraints? Finally, is there an association between people's interest in visiting parks and their support for changes in programming and park design calculated to alleviate these constraints? Findings from this study will extend our understanding of what constraints limit park use and whether these constraints are related to a latent desire to visit parks or visit them more often. Findings will also extend our understanding of how park and recreation agencies can create affordances and attune visitors to agency offerings in ways which can potentially help people negotiate constraints that limit their use of public parks.

Methods

Data were drawn from a 2001 telephone survey of residents of seven counties in Northeast Ohio (Cuyahoga, Geauga, Lake, Lorain, Medina, Portage and Summit). There are approximately 2.9 million residents in the area, with Cleveland

and Akron being the largest cities. The survey used random-digit dialing and a stratified sampling procedure to ensure that equal numbers of males and females were represented in the study sample. The study achieved 1,200 completed interviews (for a 77% response rate).

The survey was part of a broader investigation to understand general park use among residents of the seven counties. Respondents were first asked whether or not they had visited parks in Northeast Ohio during the last 12 months. People who said yes were then asked how frequently they had visited parks. Response categories for this follow-up question were (1) once or twice a year, (2) less than once a month, (3) about once a month, (4) about once a week, and (5) almost daily. The analyses in this paper are based on individuals who were infrequent users of public parks in Northeast Ohio. This included individuals who said they did not visit parks over the last 12 months and individuals who said they visited parks only once or twice a year or less than once a month. Thus, our study focuses on individuals who visit parks infrequently or not at all. This definition of an infrequent visitor was chosen to maintain consistency with prior park constraint research at this setting and the leisure literature (Scott & Munson, 1994; Mowen et al., 2005). It is important to note that non-users could well have visited parks at some point prior to this 12 month reference period. Moreover, initial study comparisons between non-users and infrequent users revealed that perceived constraints were not markedly different between these two groups. In light of these issues, we made the decision to combine park non users and infrequent park users for subsequent analyses. For sake of simplicity, these individuals (N=539) are hereafter referred to as infrequent visitors.

Infrequent visitors were asked to rate how important 15 constraints were in limiting their use of public parks in Northeast Ohio. Items used to measure park visitation constraints were consistent with prior park constraint studies conducted in Northeast Ohio in 1991 (Scott & Jackson, 1996; Scott & Munson, 1994) and reflected three dimensions of constraints as outlined by Crawford and Godbey (1987): Intrapersonal (e.g., don't like to participate), interpersonal (e.g., no one to go with to parks), and structural (e.g., parks are too far away). Response categories were (1) not at all important, (2) somewhat important, and (3) very important.

Infrequent visitors were then asked whether 10 changes in park delivery might result in their using public parks more often in Northeast Ohio. Response categories were "Yes" and "No." Items were identical to those used in a previous study reported by Scott and Munson (1994) and Scott and Jackson (1996). These facilitation strategies represent possible negotiation tactics to the constraints that limit people's use of parks. Some of these changes represent leisure affordances within the control of park and recreation agencies (e.g., *parks were made safer* or if *parks were located closer to home*). Other facilitation strategies are better viewed as forms of attunement (e.g., *provide more information about parks*). Respondents were also asked whether or not they visited parks as often as they would like. This item provided a measure of respondents' interest in visiting parks more often. Response categories for this item were "Yes" and "No" as well.

Analysis was conducted in two phases. First, we used cluster analysis to identify segments of infrequent visitors based on their responses to the 15 constraints

items. A handful of researchers have sought to group non-participants on the basis of how they experience constraints (e.g., Jackson & Henderson, 1995; Jun et at., 2009). We felt this would be particularly helpful as we wanted to determine how groups of infrequent visitors might respond to modifications in service delivery. We performed a series of K-means cluster solutions, ranging from 2 to 7 clusters. Our goal was to discover a cluster solution that was both intuitive and had neither too few nor too many cases. We then used chi-square analysis to determine relationships among segments of infrequent visitors (i.e., types of constrained park visitors), interest in visiting parks more often, and responses to the facilitation strategies that are designed to alleviate constraints.

Results
Classification of Infrequent Visitors by Constraint Perceptions

Table 1 summarizes results of the cluster analysis. Four distinct groups of infrequent visitors were observed. The largest group, consisting of 49% (n = 234) of infrequent visitors, was *Time Constrained*. These individuals had the highest mean scores for three items: "Lack of time," "Busy with family responsibilities," and "Busy with other activities." These individuals also had the second highest mean score for the item, "Pursue recreation in areas other than parks." They had

TABLE 1. CLUSTER MEMBERSHIP BY INTENSITY OF CONSTRAINTS

	Relatively Unconstrained (35%) Mean	Transportation Constrained (10%) Mean	Heavily Constrained (6%) Mean	Time Constrained (49%) Mean	F-value
Lack of time	1.38_a	1.83_b	2.28_c	2.64_d	150.82 ***
Lack of information	1.52_{ab}	1.89_{cd}	2.51_e	1.60_{bc}	17.56 ***
Fear of crime	1.35_a	2.03_b	2.54_c	$1.23a$	51.24 ***
Poor health	1.40_a	1.86_b	2.46_c	1.12_d	57.30 ***
No one to go with to the parks	1.46_a	1.62_a	2.36_b	1.24_c	29.99 ***
Parks are too far away	1.18_a	1.75_b	2.20_c	1.21_a	45.14 ***
I have no way to get to parks	1.04_a	2.31_b	2.08_b	1.04_a	235.08 ***
Park facilities/programs cost too much	1.20_a	1.61_b	2.31_c	1.14_a	50.90 ***
Parks are too crowded	1.21_a	1.48_b	2.23_c	1.23_a	32.63 ***
Parks are over-developed	1.07_a	1.24_a	1.85_b	1.14_a	29.00 ***
Pursue recreation in areas other than parks	1.70_a	1.59_a	2.26_b	2.05_b	13.76 ***
Don't like to participate	1.30_a	1.49_a	2.03_c	1.34_a	11.63 ***
Too busy with other activities	1.59_a	1.72_a	2.36_b	2.63_a	104.78 ***
Too busy with family responsibilities	1.46_a	1.56_a	2.46_b	2.46_b	82.15 ***
Lack of transportation	1.04_a	2.09_b	1.75_c	1.07_a	106.27 ***

*** p < .001

abcde Groups with different subscripts are significantly different at .05 level of confidence.

relatively low mean scores on all the other constraints items. The second largest group we called *Relatively Unconstrained* and was made up of 35% (n = 168) of infrequent visitors. These individuals, generally, had the lowest scores on all 15 items we used to measure constraints. Ten percent (n = 48) of infrequent visitors were *Transportation Constrained*. These individuals had the highest mean scores for "Lack of public transportation" and "I have no way to get to parks." They also had the second highest mean scores for the items, "Parks are too far away," and "Fear of crime." The final group was made up of 6% (n = 29) of infrequent visitors. We called these individuals *Heavily Constrained* because they had high mean scores for all 15 constraints items.

Interest in Visiting Parks and its Relationship to Agency Facilitation Strategies

A majority of infrequent visitors (nearly two out of three) said they do not visit parks as often as they would like and it is assumed these individuals have some interest in visiting parks more often. Moreover, as shown in Table 2, a majority of all infrequent visitor groups reported they would like to visit parks more frequently. However, interest in visiting parks more often varied significantly ($p <$ .001) by the types of constraints infrequent visitors reported. Nearly three out of four (73%) of infrequent visitors who were characterized as Transportation Constrained or Time Constrained said they did not visit parks as often as they would like. In contrast, 53% of infrequent visitors who were Relatively Unconstrained and 59% of visitors who were Heavily Constrained reported an interest in visiting parks more often. This indicates latent demand appeared to be highest among infrequent visitors who were transportation and time constrained.

TABLE 2. RELATIONSHIP BETWEEN TYPES OF CONSTRAINTS ENCOUNTERED AND INTEREST IN VISITING PARKS MORE OFTEN

	Would you say you visit parks in your area as often as you would like?		
	Yes %	No %	Chi-Square
Relatively Unconstrained	47.3	52.7	
Transportation Constrained	27.1	72.9	
Heavily Constrained	41.4	58.6	
Time Constrained	27.6	72.4	18.47 ***

*** p < .001

Support for Park Facilitation Strategies

Table 3 provides a summary of the relationship between the importance of constraints and preference for agency facilitation strategies. Only two of these strategies had a majority of all infrequent visitors groups saying they might visit parks more often: providing more information about parks and providing more activities. Given what we observed in Table 2, we might predict individuals who were Transportation Constrained and Time Constrained would be the most likely

to say they would visit parks given the proposed changes. This was not entirely the case. In fact, Table 3 shows that infrequent visitors classified as Time Constrained were far less likely than others to report they might visit parks more often given the different agency facilitation strategies proposed. Table 3 also shows that Relatively Unconstrained infrequent visitors were unlikely to visit parks given the various changes offered them. Support for agency facilitation strategies was most likely to occur from the Heavily Constrained group. Here, over 90% of these infrequent visitors said they might use parks more often if they had more information about parks and if parks were made safer ($p. < .001$). They were also far more likely than other infrequent visitors to say they might use parks more if parks were less crowded ($p. < .001$) and had more activities ($p. < .001$). Infrequent visitors who were Transportation Constrained were significantly more likely than other infrequent visitors to say they might use parks more often if they were made more accessible via public transportation ($p. < .001$). They were also far more likely than Relatively Unconstrained and Time Constrained infrequent visitors to report that they might use parks more often if they had more information about parks ($p. < .001$), if travel time to parks was reduced ($p. < .001$), and if parks were made safer ($p. < .001$), developed closer to home ($p. < .001$), less developed ($p. < .001$), and less crowed ($p. < .001$).

TABLE 3. RELATIONSHIP BETWEEN TYPES OF CONSTRAINTS ENCOUNTERED AND CHANGES IN PARK DELIVERY THAT MIGHT RESULT IN MORE FREQUENT USE [a]

	Relatively Unconstrained %	Transportation Constrained %	Heavily Constrained %	Time Constrained %	Chi-Square
Providing more information about parks	63.9	85.4	93.3	67.1	16.90 [***]
Providing more activities	50.9	65.3	89.7	51.7	18.32 [***]
Making the parks safer	51.8	83.3	96.7	39.9	56.22 [***]
Developing parks closer to home	40.4	66.7	69.0	41.2	18.62 [***]
Reducing travel time to parks	35.2	68.8	72.4	36.2	31.54 [***]
Reducing costs	39.9	50.0	65.5	31.7	16.09 [***]
Reducing overcrowded in parks	36.4	57.4	75.9	30.9	30.24 [***]
Reducing development in parks	34.2	46.8	57.1	28.8	12.84 [***]
Providing public transportation to parks	31.0	71.4	62.1	20.4	61.80 [***]
Providing assistance with care of children	30.9	46.9	69.0	21.7	35.19 [***]

[***] p < .001

[a] Percentages in the table refer to the proportion of respondents who said they might use local parks more if the stated changes were made.

Relationships between Interest in Parks and Support for Agency Facilitation Strategies

Table 4 summarizes the relationship between interest in visiting parks and support for agency facilitation strategies. Not surprisingly, infrequent visitors who expressed an interest in visiting parks more often were significantly more likely than their uninterested counterparts to say they might visit parks given the following five changes in park programming and design: provide more information about parks (75% versus 60%); provide more activities in parks (60% versus 48%); develop parks closer to home (52% versus 34%); reduce travel time to parks (49% versus 27%); and provide public transportation to parks (37% versus 23%).

TABLE 4. RELATIONSHIP BETWEEN INTEREST IN VISITING PARKS MORE OFTEN
AND CHANGES IN PARK DELIVERY THAT MIGHT RESULT IN MORE FREQUENT USE [a]

	Would you say you visit parks in your area as often as you would like?		
	Yes %	No %	Chi-Square
Providing more information about parks	60.4	74.8	11.84 ***
Providing more activities	48.1	59.6	6.48 *
Making the parks safer	50.3	54.7	0.96
Developing parks closer to home	34.0	52.0	15.85 ***
Reducing travel time to parks	26.8	49.1	24.55 ***
Reducing costs	33.3	41.1	3.03
Reducing overcrowded in parks	33.9	40.3	2.07
Reducing development in parks	31.3	34.7	0.63
Providing public transportation to parks	23.3	37.1	10.68 ***
Providing assistance with care of children	26.9	33.3	2.34

[*]$p < .050$, [***]$p < .001$

[a]Percentages in the table refer to the proportion of respondents who said they might use local parks more if the stated changes were made.

Discussion

Can park and recreation agencies modify their delivery of services to help people negotiate constraints? We sought to answer this question by exploring the conditions under which people indicated they might visit parks more often. We believed that two factors might influence their intention to visit parks more frequently in the presence of various agency facilitation strategies. One was the specific types of constraints people encountered. For example, some constraints might be more readily negotiated than others in the face of agency facilitation strategies. The other factor was people's interest in visiting parks more often regardless of their existing visitation rates. It seems logical that people who are content with their current rate of visitation would show little inclination to negotiate constraints despite agency efforts to mitigate them.

Our results yield findings that are both predictable and puzzling, and suggest the need for further study of agency facilitation strategies to increase park visitation among non-users. We begin our discussion with infrequent visitors who said they were constrained by a lack of time. These individuals made up about half of all infrequent visitors. Importantly, nearly three out four of these infrequent visitors reported they did not visit parks in their area as often as they would like. This seemingly suggests a high degree of interest in visiting public parks on a more regular basis. Yet time constrained infrequent visitors were *far less likely* than other types of infrequent visitors to say they might negotiate constraints given the different options provided. Here, only 22% of time constrained infrequent visitors said they might visit parks more if agencies provided services that would help these individuals juggle their busy work and family commitments (e.g., park agencies providing assistance with child care). In contrast, 69% of infrequent visitors who were heavily constrained and 47% of infrequent visitors who were transportation constrained said they might visit parks more often if child care was provided by the park district. Perhaps agency-offered child care is not an appropriate strategy to reach time constrained audiences.

One could argue that the ten options we presented for negotiating constraints was too narrow and did not adequately reflect the needs of time constrained infrequent visitors. Additional agency facilitation strategies might better address the interpersonal and intrapersonal issues related to time constraints. For example other efforts—such as scheduling programs at work sites, having work functions within local park settings—could be more viable agency facilitation strategies to expose these time constrained infrequent visitors to their local parks. On the other hand, it could be that these individuals truly would like to visit parks more often but they may feel they have too many demands on their time to negotiate constraints. Clearly, time constrained constituents are a difficult market to attract, but future research should explore how time constrained audiences would respond to a wider range of agency-initiated strategies.

Individuals who were classified as relatively unconstrained made up 35% of all infrequent visitors. Despite their low park visitation constraint scores, only a slight majority (53%) of these infrequent visitors said they visited parks as often as they liked. Furthermore, these infrequent visitors perceived that there was little that agencies could do (based upon the facilitation strategies presented to them) that would result in them using public parks more often. A strong argument can be made that there is little latent demand among these infrequent visitors. However, our park visitation constraint items heavily favored structural constraints and there may be other intrapersonal or interpersonal constraints that may be salient for these infrequent visitors that our survey did not detect. Moreover, we did not use "I have no preference or interest in visiting parks" as a park constraint item. Although we have no data about what other leisure activities and locales these "unconstrained" infrequent visitors preferred, it seems clear that a sizable percentage have relatively little interest in visiting public parks and may be unlikely to visit parks even with agency efforts to mitigate common visitation constraints.

Ten percent of infrequent visitors were transportation constrained. These individuals expressed a high degree of interest in visiting parks on a more regular basis—73% said they did not visit parks as often as they would like. Furthermore, transportation constrained infrequent visitors indicated they might negotiate constraints if parks were made safer and more accessible (i.e., public transportation was provided, parks were developed closer to home, travel time to parks was reduced). The vast majority of these transportation constrained infrequent visitors (85%) also said they might use parks more often if they had more information about parks in their area. Clearly, there seems to be high latent demand among infrequent visitors who are transportation constrained. Furthermore, public park and recreation agencies seem to be in a very good position to help these infrequent visitors negotiate transportation and safety constraints that currently limit their use of parks by creating more close-to-home facilities and developing transportation connections (e.g., connector trails/paths, public transit) to existing facilities. Moreover, improving safety perceptions may be accomplished with increased programming, staffing, and maintenance initiatives at locations deemed by these constituents as being unsafe.

A very small group (6%) of infrequent visitors was heavily constrained by a wide variety of constraints presented to them in the survey. Fifty-nine percent of these heavily constrained infrequent visitors said they did not visit parks in their area as often as they would like. Importantly, this was lower than the proportion reported by infrequent visitors who were transportation constrained and time constrained. Yet, the vast majority of heavily constrained infrequent visitors said they might visit parks more often if each of the 10 agency facilitation strategies was implemented. However, it is unclear how effective park and recreation agencies would be in using facilitation strategies to help these individuals visit parks. Obviously several constraints would have to be removed, but at what point do park and recreation agency facilitation strategies reach a tipping point to make these constituents use parks? Moreover, how could partnerships between park agencies and other community organizations be leveraged to address these constraints for heavily constrained constituents? It is entirely possible that circumstances in these individuals' lives are so difficult that constraint negotiation is unlikely to occur regardless of the amount of changes made in service delivery efforts.

Regardless of our respondents' specific constraint classification group, park non-users with an interest in visiting parks more were more likely than their uninterested counterparts to say that they might use parks given five constraint mitigation strategies: provide more information about parks, provide more activities in parks, develop parks closer to home, reduce travel time to parks, and provide public transit to parks. Significantly, these preferences are also consistent with recommendations of leisure and public health scholars who are suggesting ways to increase Americans' frequency of park use and their physical activity levels (Cohen et al. 2010; Mowen & Baker, 2009). These preferences are generally supportive of the actions of park-based social marketing campaigns that seek to make parks more visible in the media, enhance the range of activities and programs possible in these settings, and pursue policies and interventions designed to enhance park proximity and transportation.

On the other hand, those interested in visiting parks were no more likely than their uninterested counterparts to report that other strategies, such as reducing park overcrowding, reducing park over-development, reducing costs associated with park visits, and making parks safer, would result in them visit parks more frequently. It has been assumed that overcrowding and over-development in parks are undesirable experiences for many people. Perhaps in the context of urban parks, the issue or under-capacity or under-development (rather than overcrowding) may dissuade non-users from seeking out recreation activities within these settings. Perhaps, urban park managers could address latent demand by emphasizing a functional density of park users and providing a sufficient amount of park opportunities to ensure that infrequent users are attracted to these settings. However, these suppositions are conjecture at this point and future studies are needed to directly examine whether urban park under-capacity and/or lack of development are significant concepts when examining leisure affordances and facilitation strategies to encourage frequent use.

Conclusion

A key contribution of this study was that it sought to operationalize agency facilitation strategies designed to increase people's use of parks. Many agency facilitation strategies can be thought of as leisure affordances that under the control of the agency. Our data suggested that infrequent park users who are transportation and access constrained may react most favorably to agencies' efforts to mitigate these constraints to visitation. Frequency of park visitation has been linked to environmental factors such as availability, proximity, and transportation access to facilities and amenities (Grow et al. 2008; Mowen et al. 2007). Structural issues such as distance to parks, number of parks within a community, and a diversity of park activity alternatives may play a more important role than intrapersonal and interpersonal factors in explaining park use/non-use and frequency of visitation.

Future research should focus on more specific affordances and attunements within the community that might ameliorate perceived constraints and facilitate participation. Our findings suggest that transportation and safety affordances might lead to greater park visitation among some visitors. These same individuals may also benefit from information about park offerings near where they live and, perhaps, existing public transportation routes to parks not within easy walking distance. In cases where park districts are able to provide superior information, they may simply be attuning infrequent visitors about what already exists. More research is needed to understand the conditions under which individuals who are transportation constrained are likely to visitor public parks more often. A key limitation of this study was that we focused on only 10 general agency facilitation strategies that were in a prior study in this same region (Scott & Jackson, 1996; Scott & Munson, 1994). Perhaps, more work could be done to generate a more inclusive set of potential affordance and attunement strategies.

Finally, it should be noted that leisure service agencies may not be able to realistically reach all people who are constrained and/or voice some interest in visiting parks more often. We found that a relatively large group of infrequent visitors perceived that time constraints limited their park use, and yet these individuals

were less likely to be responsive to agency facilitation strategies. It could be they perceive they are too overwhelmed with the demands on their time to fit parks into their busy schedules. They may also think it is good for them but they seem to be over-programmed with existing responsibilities and commitments. Regardless of these challenges, understanding factors that contribute to park constraints and non-use (and what affordances can be used to change these conditions) remains an important topic of inquiry for today's leisure professional and deserves more explicit attention in leisure research.

References

Arnold, M. & Shinew, K. (1998). The role of gender, race, and income on park use constraints. *Journal of Park and Recreation Administration, 16(4)*, 39-56.

Boothby, J., Tungatt, M. F., & Townsend, A. R. (1981). Ceasing participation in sports activity: Reported reasons and their implications. *Journal of Leisure Research, 13*, 1-14.

Cohen, D. A., Marsh, T., Williamson, S., et al. (2010). Parks and physical activity: Why are some parks used more than others? *Preventive Medicine, 50*(Suppl. 1), S9-S12.

Clawson, D., & Knetsch, J. L. (1966). *Economics of outdoor recreation*. Baltimore: The John Hopkins Press.

Crawford, D. W., & Godbey, G. (1987). Reconceptualizing barriers to family leisure. *Leisure Sciences, 9*, 119-127.

Crawford, D. W., Jackson, E. L., & Godbey, G. (1991). A hierarchical model of leisure constraints. *Leisure Sciences, 13*, 309-320.

Gibson, J. J. (1979). The theory of affordances. In R. Shaw & J. Bransford (Eds.), *Perceiving, acting, and knowing: Toward an ecological psychology* (pp. 67-82). Hillsdale, NJ: Erlbaum.

Gibson, J. J. (1977). *The ecological approach to visual perception*. Boston: Houghton Mifflin.

Gobster, P. H. (1998). Explanations for minority "underparticipation" in outdoor recreation: A look at golf. *Journal of Park and Recreation Administration, 16*, 46-64.

Godbey, G. (1985). Non-participation in public leisure services: A model. *Journal of Park and Recreation Administration, 3*, 1-13.

Goodale, T. L., & Witt, P. A. (1989). Recreation non-participation and barriers to leisure. In E. L. Jackson & T. L. Burton (Eds.), *Understanding leisure and recreation: Mapping the past, charting the future* (pp. 421-449). State College, PA: Venture Publishing, Inc.

Grow, H., Saelens, B. E., Kerr, J., et al. (2008). Where are youth active? Roles of proximity, active transport, and built environment. *Medicine & Science in Sports & Exercise*, 40, 2017-2079.

Hendee, J. C. (1969). Rural-urban differences reflected in outdoor recreation participation. *Journal of Leisure Research, 1*, 333-341.

Henderson, K. A., Stalnaker, D., & Taylor, G. (1988). The relationship between barriers to recreation and gender-role personality traits for women. *Journal of Leisure Research, 20*, 69-80.

Hood, M. (1983, April). Staying away: Why people choose not to visit museums. *Museum News*, pp. 50-57.

Howard, D. R., & Crompton, J. L. (1984). Who are the consumers of public park and recreation services? An analysis of the users and non-users of three municipal leisure service organizations. *Journal of Park and Recreation Administration, 2*, 33-48.

Hubbard, J., & Mannell, R. C. (2001). Testing competing models of the leisure constraint negotiation process in a corporate employee recreation setting. *Leisure Sciences*, *23*, 145-163.

Jackson, E. L. (1983). Activity-specific barriers to recreation participation. *Leisure Sciences, 6*, 47-60.

Jackson, E. L., Crawford, D. W., & Godbey, G. (1993). Negotiation of leisure constraints. *Leisure Sciences, 15*, 1-11.

Jackson, E. L., & Dunn, E. (1988). Integrating ceasing participation with other aspects of leisure behavior. *Journal of Leisure Research, 20*, 31-45.

Jackson, E. L., & Henderson, K. A. (1995). Gender-based analysis of leisure constraints. *Leisure Sciences, 17*, 31-51.

Jackson, E. L., & Scott, D. (1999). Constraints to leisure. In E. L. Jackson & T. L. Burton (Eds.), *Leisure studies: Prospects for the twenty-first century* (pp. 299-321). State College, PA: Venture Publishing.

Jun, J., Kyle, G. T., & O'Leary, J. T. (2008). Constraints to art museum attendance. *Journal of Park and Recreation Administration, 26*, 40-61.

Jun, J., Kyle, G. T., & Mowen, A. J. (2009). Market segmentation using perceived constraints. *Journal of Park and Recreation Administration, 26*, 35-55.

Kerstetter, D.L., Zinn, H.C., Graefe, A.R., & Chen, P.J. (2002). Perceived constraints to state park visitation: A comparison of former users and non-users. *Journal of Park and Recreation Administration, 20*(1), 61-75.

Kay, T., & Jackson, G. (1991). Leisure despite constraints: The impact of leisure constraints in leisure participation. *Journal of Leisure Research, 23*, 301-313.

Kleiber, D. A., Wade, M. G., & Loucks-Atkinson, A. (2005). The utility of the concept of affordance for leisure research. In E. L. Jackson (Ed.), *Constraints to leisure* (pp. 233-243). State College, PA: Venture Publishing.

Kleiber, D., Walker, G & Mannell, R. (2010). *A social psychology of leisure* (2nd edition). State College, PA: Venture.

Knetsch, J. L. (1969). Assessing the demand for outdoor recreation. *Journal of Leisure Research, 1*(1), 85-87.

Lee, S., & Scott, D. (2009). The process of celebrity fan's constraint negotiation. *Journal of Leisure Research, 41*, 137-155.

Mannell, R. C., & Kleiber, D. A. (1997). *A social psychology of leisure*. State College, PA: Venture Publishing.

McClellan, K., & Medrich, E. A. (1969). Outdoor recreation: Economic considerations for optimal site selection and development. *Land Economics, 45*, 174-182.

McGuire, F. A., & O'Leary, J. T. (1992). The implications of leisure constraint research for the delivery of leisure services. *Journal of Park and Recreation Administration, 10*(2), 31-40.

Mowen, A. J., & Baker, B. L. (2009). Park, recreation, fitness, and sport sector recommendations for a more physically active America: A white paper for the United States National Physical Activity Plan. *Journal of Physical Activity and Health, 6*(Suppl. 2), S236-S244.

Mowen, A. J., Payne, L. L., & Scott, D. (2005). Change and stability in park visitation: Constraints revisited. *Leisure Sciences, 27*, 191-204.

Mowen, A. J.**,** Orsega Smith, E., Payne, L. L., Ainsworth, B., & Godbey, G. C. (2007). The role of park proximity and social support in shaping park visitation, physical activity, and perceived health among older adults. *Journal of Physical Activity and Health, 4*, 167-179.

Mueller, E., & Gurin, G. (1962). Participation in outdoor recreation: Factors affecting demand among American adults. *Outdoor Recreation Resources Review Commission* (Study Report No. 20). Washington, DC: U.S. Government Printing Office.

Pierskalla, C. D., & Lee, M. E. (1998). An ecological perception model of leisure affordances. *Leisure Sciences, 20*, 67-79.

Raymore, L. A. (2002). Facilitators to leisure. *Journal of Leisure Research, 34*, 37-51.

Rideout, S., & Legg, M. H. (2000). Factors limiting minority participating in interpretive programming: A case study. *Journal of Interpretation Research, 5*, 53-56.

Rodgers, B. (1973). The demand for recreation. *The Geographical Journal, 139,* 467-473.

Schroeder, T. D., & Wiens, M. (1986). The non-use of public park and recreation facilities in Tulsa. *Journal of Park and Recreation Administration, 4*(3), 75-87.

Scott, D. (1991). The problematic nature of participation in contract bridge: A qualitative study of group-related constraints. *Leisure Sciences, 13,* 321-336.

Scott, D. (2005). The relevance of constraints research to leisure service delivery. In E. L. Jackson (Ed.), *Constraints to leisure* (pp. 279-293). State College, PA: Venture Publishing.

Scott, D., & Jackson, E. L. (1996). Factors that limit and strategies that might encourage people's use of public parks. *Journal of Park and Recreation Administration, 14,* 1-17.

Scott, D., & Munson, W. (1994). Perceived constraints to park usage among individuals with low incomes. *Journal of Park and Recreation Administration, 12,* 52-69.

Searle, M. S., & Jackson, E. L. (1985a). Socioeconomic variations in perceived barriers to recreation participation among would-be participants. *Leisure Sciences, 7*, 227-249.

Shaw, S. M., Bonen, A., & McCabe, J. F. (1991). Do more constraints mean less leisure: Examining the relationship between constraints and participation. *Journal of Leisure Research, 23*, 286-300.

Wall, G. (1981). Research in Canadian recreational planning and management. In. B. Mitchell and W. R. D. Sewell (Eds.), *Canadian resource policies: Problems and prospects* (pp. 233-261). Toronto: Methuen Publications.

White, D. D. (2008). A structural model of leisure constraints negotiation in outdoor recreation. *Leisure Sciences, 30*, 342-359.

Witt, P. A., & Goodale, T. L. (1981). The relationships between barriers to leisure enjoyment and family stages. *Leisure Sciences, 4*(1), 29-49.