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Change and Stability in Park Visitation Constraints Revisited

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Despite considerable advances in our understanding of constraint composition, antecedent conditions, outcomes, and negotiation behaviors, few studies have tracked how constraints have changed or remained stable over time. This investigation sought to examine the change and stability in park visitation constraints and preferred constraint negotiation strategies across a 10-year period. A 2001 telephone survey of residents from Northeast Ohio was compared with an identical survey administered in 1991. Data from the two surveys were weighted and compared. Perceived constraints and desired constraint negotiation strategies remained relatively stable across time. Relationships between these trends and park agency efforts over the 10-year period are discussed. Future constraint trend analyses should utilize longitudinal designs to examine park visitation constraints, particularly among underserved populations.

Keywords leisure constraints, trend analysis, park visitation, constraint negotiation

Introduction

The subject of leisure constraints represents a prominent area of research in North American recreation and leisure studies (Jackson & Scott, 1999). For more than 25 years, constraints have been subject to considerable empirical attention, conceptual development, and critical analyses. Despite this level of inquiry and critique, a strong interest remains in continuing constraint-related research. This sustained interest may be due, in part, to the potential for constraints to explain leisure participation/non-participation across a variety of contexts

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including the use of public park and recreation services. A variety of articles have been published that seek to explain why people don't make greater use of public park and recreation amenities (e.g., Arnold & Shinew, 1998; Godbey, 1985; Howard & Crompton, 1984; Scott & Jackson, 1996; Scott & Munson, 1994).

Nevertheless, a dearth of trend data currently exists that could be used to evaluate whether or not organizational practices can actually change constraint perceptions and preferences for constraint negotiation or reduction strategies. According to Jackson and Scott (1999), researchers tend to assume that leisure constraints remain stable over time. This tendency may be reflected by the fact that few longitudinal and cross-sectional trend studies track changes in how constraints are experienced from one point in time to another. Although scholars such as Iso-Ahola and Mannell (1985) and Mannell and Zuzanek (1991) have challenged these perceptions by suggesting that constraints can change over time, longitudinal and trend data remain mostly absent from the constraints literature (Jackson & Scott, 1999). Regardless of its cause, a lack of replication should concern the leisure research community because it inhibits the ability to understand and generalize findings across time and context (Godbey, 1989).

Although several researchers have attempted to re-test earlier constraint findings (Hultsman, 1993; Jackson & Rucks, 1993; McGuire, O'Leary, Yeh, & Dottavio, 1989; Searle & Brayley, 1992), only a few (e.g., Jackson & Witt, 1994; Wright, Rogers, & Backman, 2001) have actually examined stability and variation in leisure constraints using exact survey replications. For example, in a four-year follow-up study, Jackson and Witt found little temporal change in the reporting of leisure constraints and the importance given to various constraint items. Moreover, the relationship between socio-economic characteristics and leisure constraints also remained stable. Those differences that did emerge were based upon differences in age and income structures associated with each time period rather than any real change in leisure constraints. Jackson and Witt concluded that replication research could provide valuable contributions to the literature, but that such studies should control for structural differences across the samples. In a separate panel study of hunting, Wright et al. explored the factor structures of 21 constraint items over a three-year period. Similar to Jackson and Witt, they found that constraints were stable with only a five % difference in the amount of variance explained by each factor structure. They found that while hunting constraints were consistent, active participation in hunting did decrease 3.7% from 1989 to 1992 (Wright et al., p. 457).

Both constraints and constraint reduction strategies have been examined related to park use. Scott and Munson (1994) analyzed park use constraints perceived by low-income households and the support for strategies that might enhance the use of local parks. Among the socio-demographic variables tested, they found income was the single best predictor of perceived constraints to park visitation. Low-income respondents (i.e., individuals who made less than \$15,000/year) were significantly more likely than individuals with the highest income levels (i.e., over \$50,000/year) to report their use of parks was limited due to fear of crime. Differences between low and high income respondents were also more pronounced for parks being too far away, having no way to get to parks, and lacking public transportation. For example, 35% of low-income respondents reported that not having a way to get to parks was *very important* in limiting their use of parks, compared to less than 2% of individuals with high income. In contrast, lack of time and being too busy with outside commitments were more likely to be cited as constraints to park use among individuals from the higher income group.

In a follow-up analysis, Scott and Jackson (1996) assessed factors that limited people's use of public parks and willingness to visit parks given various "constraint reduction" strategies. They examined whether results were a function of separate versus the interactive

effects of age and gender. Findings indicated that perceived time scarcity and preoccupation with other activities/responsibilities were the most important and widespread constraints across the entire sample. Park overdevelopment (e.g., too much development within the park setting), costs associated with visiting parks, and having no way to get to parks were cited as being least constraining for respondents. The most frequently desired constraint reduction strategies were making parks safer, providing more information about parks, providing more park activities, and building parks closer to home. Furthermore, they found older women were more likely to be constrained in their park use due to fear of crime, lack of park companionship, poor health, and having no way to get to parks. The authors noted that as men and women aged, they experienced similar kinds of park use barriers, yet women were more constrained in their park use relative to men (Scott & Jackson, 1996).

Collectively, these two studies indicated differential effects of socio-demographic characteristics upon park constraints and suggested that park agencies may be able to implement strategies to facilitate the negotiation of park constraints. Less clear, however, is whether these perceived park use constraints and preferred constraint reduction strategies are static over time *and* if park organizations can make appreciable in-roads into reducing perceived constraints. If constraint theories are to be applied more broadly, then it would be helpful to examine how they relate to organizational constraint reduction efforts and whether the efforts of park organizations can effectively minimize constraints and among what populations.¹

Unfortunately, researchers doing longitudinal studies have not discussed how the actions of leisure service agencies have corresponded with changes in leisure constraints among specific populations. Thus, it has been difficult to determine if an organization's constraint reduction efforts are having an impact on infrequent park visitors/non-users (e.g., lower income households, minority groups, older adults, and females). These deficiencies could also explain why more park and recreation practitioners have not embraced constraint research and its relevance to their organizational programs and planning.

To address these gaps, the following research questions were posed:

1. What is the nature of change and stability in a population's perceived park visitation constraints over a 10-year period?
2. Are significant shifts in a population's constraint reduction preferences over a 10-year period evident?
3. Is change or stability evident in the relationship between socio-demographic characteristics (i.e., age, race, gender, education, income) and park visitation constraints over a 10-year period?

Methods

Study Setting and Data Collection Procedures

The data from these analyses were part of the two most recent park user and non-user surveys administered by Cleveland Metroparks in 1991 and 2001. The 1991 study was conducted in cooperation with the Survey Research Center at the University of Akron; the 2001 study was conducted in cooperation with Triad Research, Inc., of Cleveland, Ohio. Results from the 1991 study were summarized by Scott and Munson (1994) and Scott and Jackson (1996). Both of these park studies were designed to provide useful information

¹Given the volume of literature devoted to constraints over the past two decades, our intent here is not to provide a comprehensive review of the relationship between sociodemographic characteristics and constraints but to limit our discussion to longitudinal studies examining these characteristics. A more thorough discussion of socio-demographic characteristics (e.g., age, gender, race) and their relationship to leisure constraints can be found in Jackson (in Press).

in the formulation of a Park District master plan and to provide other park organizations specific user and non-user data for marketing purposes. The study areas for both the 1991 and 2001 surveys included seven counties in the Greater Cleveland Area (i.e., Cuyahoga, Geauga, Lake, Lorain, Medina, Portage, and Summit). The 1991 telephone survey achieved 1,054 completed interviews (60% response rate), while the 2001 telephone survey achieved 1,200 completed interviews (77% response rate). Both studies were conducted during the month of October, and both samples included telephone numbers purchased from Survey Sampling, Inc. In 1991, adult respondents (18 and older) were selected by choosing the household member who celebrated the most recent birthday. In 2001, the sample was stratified to achieve an even percentage of adult male/female respondents. Given that both the 1991 and 2001 studies required a minimum age of 18 as a criterion for participating, direct age comparisons between our study findings and the general population should not be made.

In 1990 the Cleveland—Akron Consolidated Metropolitan Statistical Area (CMSA) had a population of 2.86 million; by 2000 this population grew to 2.95 million (a modest 3% gain). Over the same period, the heavily urbanized Cuyahoga County experienced a 1.3% loss from 1.41 million residents to 1.39 million residents. According to the U.S. Census Bureau, people who are 65 years of age and older represented 383,224 residents in 1990 and grew 1% to 419,890 in 2000. Between 1990 and 2000, no change occurred in the population of African-Americans (the predominant minority group in the region); they remained stable and accounted for 17% of the CMSA population. Both the 1991 and the 2001 telephone survey data varied from the population in several ways. Both surveys under-sampled individuals with low family incomes, those who did not graduate from high school, and those who were black. The 1991 telephone survey used random-digit dialing and under-represented males (Scott & Munson, 1994). The 2001 study used a stratified sampling procedure to systematically maintain a quota of 50% males and 50% females to more accurately represent population characteristics. Regarding county representation in the sample, the 1991 telephone survey sampling method under-represented Cuyahoga County residents while the 2001 telephone survey (using a stratified sampling procedure) over-represented Cuyahoga County residents. To correct for these inconsistencies, both the 1991 and the 2001 data were weighted to more accurately reflect the percentage of respondents from Cuyahoga and the other counties sampled.

Instrumentation

Because these studies were intended to describe general park use, no effort was made to differentiate what kinds of parks (e.g., city, state, waterfronts) people visited, except that specific questions about their use of Cleveland Metroparks facilities were asked later in the telephone interview. Study analyses, both in 1991 and 2001, focused on general park use constraints rather than constraints related to specific parks (e.g., Cleveland Metroparks). In both studies, respondents were first asked whether they ever visited parks in Northeast Ohio. Those people who indicated they had visited a park were then asked how frequently they used parks. Response options included: (a) don't use parks, (b) use once or twice a year, (c) use less than once a month, (d) use about once a month, (e) use once a week, and (f) use almost daily. Non-park users (i.e., those who indicated they did not use parks) and infrequent park users (i.e., those who indicated they used parks once or twice a year or less than once a month) were then asked a series of follow-up questions regarding the importance of constraints to their park use and their preferences for constraint reduction strategies. Specifically, these non/infrequent users ($N_1 = 637$ in 1991 and $N_2 = 539$ in 2001) were asked to rate the importance of 14 constraints in limiting their park visitation.

These constraints represented three concepts: interpersonal, intrapersonal, and structural constraints (Crawford & Godbey, 1987). Examples of structural constraints included: lack of time, parks are too crowded, parks are too far away, and no way to get to parks. Examples of intrapersonal constraints were fear of crime and poor health. Interpersonal constraints included no one to go with to parks, and busy with family responsibilities. Both the 1991 and 2001 studies used a three-category approach that was consistent with the work of McGuire (1984). The three-ordinal constraint response categories were “Not at all important,” “Somewhat important,” and “Very important.” Analyses and results presented in this study reflect this reduced sample of non-visitors and infrequent park visitors for both the 1991 and 2001 data.

In addition to reporting their perceived park use constraints, respondents were also asked to evaluate various strategies for increasing their use of public parks. Ten strategies representing popular options to negotiate park use constraints were provided, and respondents were given a two-response option: “Yes” (indicating the strategy would result in increased park use) and “No” (indicating the strategy would not result in increased park use). Strategies for increased park use included actions such as developing parks closer to home, making the parks safer, and providing more information about parks and programs.

Socio-demographic data were also collected to examine how respondents with different characteristics (e.g., age, race, sex, income) were influenced by constraints over time. Socio-demographic information collected in the 1991 and 2001 studies were similar to those collected by the Jackson and Witt (1994) trend analysis. Our trend analysis also included an assessment of race and educational attainment.

Data Analysis

The 1991 and 2001 data were merged into a single SPSS data file to perform statistical analyses. Four tests were used to address the research questions of this study. First, depending upon the nature of the data, chi-square analyses and t-tests were used to examine stability and change among park use constraints and preference for constraint reduction strategies between 1991 and 2001. Multiple linear regression was used to examine the effect of socio-demographic characteristics upon park use constraints for both the 1991 and 2001 data. The stepwise entry method with listwise deletion of missing data was used to maintain consistency with the analytical procedures used by Scott and Munson (1994). Moreover, stepwise regression provided a basis for testing the net effect of income after controlling for the effects of other variables in the equation (Scott & Munson, 1994).

Results

Comparison of Park Visitation Constraints Over the 10-year Period

The first objective of this research was to examine stability and change in perceived park use constraints over a 10-year period. These results are summarized in Table 1. Despite some minor differences between the two samples in regard to demographics and park use, constraint perceptions were remarkably similar over time. Consistent with prior park use constraint research (Scott & Munson, 1994), too busy with other activities, lack of time, and too busy with family responsibilities were the most important park use constraints cited by respondents in 1991 and 2001. Despite these similarities, a few significant changes in the constraints were reported. Perhaps the most striking variation was the decrease in the percentage of respondents who said that fear of crime was an important reason for not visiting parks. Other less pronounced yet statistically significant variations were that 2001

TABLE 1 A Comparison of Mean Scores for 14 Park Use Constraint Items: 1991 to 2001

Constraint Items	1991 survey mean ^a	2001 survey mean ^a	<i>d.f.</i>	t-value	Sig.
Lack of time	2.17	2.10	1120	1.44	.149
Busy with other activities	2.14	2.14	1154	-0.49	.961
Busy with family responsibilities	1.92	2.02	1161	-1.92	.055
Fear of crime	1.83	1.44	1162	7.94	.000
Pursue recreation elsewhere	1.90	1.89	1143	0.24	.805
Lack of information	1.71	1.66	1151	1.07	.286
No one to go with to parks	1.49	1.44	1163	1.28	.202
Poor health	1.42	1.39	1161	0.69	.489
Parks are too far away	1.40	1.32	1158	2.25	.000
Don't like outdoor recreation	1.43	1.38	1153	1.20	.231
No way to get to parks	1.28	1.23	1164	1.32	.189
Lack of public transportation	1.29	1.21	1160	2.17	.030
Parks are too crowded	1.43	1.33	1123	2.61	.009
Costs too much	1.25	1.27	1112	-0.61	.540

^a1 = not important, 2 = somewhat important, and 3 = very important park use constraint.

respondents were less likely to cite parks are too far away, parks are too crowded, and lack of public transportation as factors limiting their park visitation.

Comparison of Desired Constraint Reduction Strategies Over the 10-year Period

A second research objective was to compare perceptions of constraint negotiation strategies that could be facilitated by park and recreation organizations. Specifically, we wanted to see if any changes/consistencies in perceived park use constraints corresponded with the change/stability in desired constraint negotiation strategies (See Table 2). Results indicated that preferences for constraint negotiation strategies were fairly stable over the 10-year

TABLE 2 A Comparison of Mean Scores for 10 Desired Constraint Reduction Strategies: 1991–2001

Constraint reduction strategies	1991 % ^a	2001 % ^a	<i>d.f.</i>	χ^2 value	Sig.
Develop parks closer to home	51	46	1	2.76	.099
Provide more park information	71	70	1	0.30	.606
Reduce travel time to parks	41	41	1	0.00	.100
Provide public transportation to parks	34	32	1	0.38	.574
Make parks safer	72	53	1	45.80	.000
Provide more activities in parks	57	56	1	0.08	.811
Reduce overcrowding in parks	43	38	1	2.74	.100
Reduce development in parks	30	34	1	1.34	.267
Reduce costs associated with visiting parks	38	38	1	0.01	.951
Provide assistance with child care	40	31	1	9.76	.002

^a%indicating that this strategy would likely result in increasing their use of parks.

period and preferences corresponded with their reporting of park use constraints. Strategies such as providing more park information, providing more activities, and developing parks closer to home remained the most desirable constraint reduction strategies over this 10-year time period. However, preferences for two constraint reduction strategies were significantly different, (i.e., fewer respondents indicating these strategies would make them visit parks more often). First, respondents were less likely to indicate that providing assistance with the care of children or other family members would make them visit parks more often (40% supported this strategy in 1991 while 31% supported this strategy in 2001). Even more dramatic, and consistent with changes in their perceived safety constraint, was the change in the importance of making parks safer. In 1991, 71% indicated that this strategy would make them use parks more often, while in 2001 only 52% indicated that this strategy would increase their park use. This finding mirrored the overall reduction in the fear of crime as a park use constraint from 1991 to 2001. Despite these two changes, however, the reader is cautioned that the majority of respondents still indicated that making parks safer (52%) would increase their park use and a sizable percentage (31%) indicated that providing child care assistance would increase their park use.

Relationships Between Socio-Demographic Characteristics and Park Visitation Constraints Over the 10-year Period

Stepwise regression analysis was used to determine which socio-demographic characteristics were significantly associated with park use constraints both in 1991 and 2001. Specifically, we examined the role of race, age, income, education, and gender in predicting perceived park use constraints. Our goal was to determine whether or not relationships between socio-demographic factors and constraints remained stable or changed over the 10-year period. Results for these analyses are summarized in Table 3. Subsequent tests indicated that multi-collinearity was not problematic for the independent variables included in these regression analyses (i.e., tolerances and variance inflation factors were within acceptable limits). Over the two time periods, income was the single best predictor of perceived constraints. In both 1991 and 2001, respondents with higher incomes were significantly more likely to report lack of time, busy with other activities, family responsibilities, and pursuing recreation elsewhere as important park use constraints. In contrast, those respondents with lower incomes were more likely to report that fear of crime, no one to go with, no way to get to parks, poor health, parks too far away, don't like outdoor recreation, lack of public transportation, and costs too much were important factors that limited their park use. Interestingly, for higher income groups, lack of time, busy with other activities, busy with family responsibilities, and pursue recreation elsewhere also decreased slightly in importance from 1991 to 2001.

Age was also a strong predictor of constraints both in 1991 and 2001. For both time periods, younger adults were more likely to cite lack of time, busy with other activities, busy with family responsibilities, pursuing recreation elsewhere and lack of information as important constraints to park use. However, older adults were more likely to cite no one to go with to parks, poor health, no way to get to parks, and lack of public transportation as important park use constraint. Only one other difference over the 10-year time period existed with respect to the influence of age on constraints. In 1991, age was positively related to the "don't like outdoor recreation" constraint item. This relationship, however, was not significant in 2001.

Gender was fairly stable over time in predicting constraints. In both 1991 and 2001, females were more likely than males to report that busy with family responsibilities, fear of crime, and no one to go with to the park were important factors that limited park use.

In 2001, females were slightly more likely than males to report costs too much and fear of crime as a park use constraint.

Education was also a fairly good predictor of constraints to park use, although some differences in constraints were reported between 1991 and 2001. In both 1991 and 2001, level of education was negatively related to 5 constraints items: fear of crime, poor health, no way to get to parks, parks are too crowded, and parks cost too much. In 2001, level of education was positively related to lack of time and being busy with other activities, and negatively related to having no one to go with to parks. None of these relationships, however, was significant in 1991. In 1991, those respondents with lower levels of education were more likely to indicate that being busy with family responsibilities was an important factor in limiting their park visitation. This relationship did not hold in 2001.

Several differences in constraints were detected over the 10-year time period for Blacks and Whites. In 1991 only two significant differences existed between Blacks and Whites. In these cases, Blacks were more likely to report their use of parks was constrained by parks costing too much and lack of public transportation. In 2001, in contrast, Blacks and Whites significantly differed in terms of 8 of the 14 constraint items. In 2001 Whites were significantly more likely than Blacks to report time constraints and competing interests as factors limiting their park use. Conversely, Blacks were significantly more likely than Whites to report fear of crime and no way to get to parks as important constraints to park use (See Table 3).

Discussion

Trends in Park Use Constraints

Ten-year comparisons between the two time periods indicated that perceived park visitation constraints remained stable even in the face of increased park utilization and despite park agency efforts to minimize park use constraints. This stability was consistent with other constraint trend studies conducted in the leisure research literature (e.g., Jackson & Witt, 1994; Wright et al., 2001). Despite the overall stability of park visitation constraints, several statistical variations were noted both across the two time periods and across individuals with varying socio-demographic characteristics.

First, we found that while fear of crime was a relatively major factor in limiting park use, it was significantly less important in 2001 than in the 1991 study as reported by Scott and Munson (1994) and Scott and Jackson (1996). Over this time period, the Park District not only enhanced the visibility of its ranger corps (e.g., it instituted bicycling patrols at key locations within the Park District's trail network), but it also continued its strategy of placing park amenities near higher traffic areas where informal monitoring helped to keep more eyes on the park. The Park District staff also maintained the physical appearance of parks to discourage vandalism and other forms of crime. Remembering that perceived constraints were not measured specific to Cleveland Metroparks, another potential explanation for the reduced fear of crime was that neighboring park and recreation departments could have also increased their formal crime monitoring programs and could have designed their amenities to be more appealing to visitors who were more likely to be safety conscious (i.e., older adults, females, Blacks, lower income families). Nevertheless, perceived fear of crime was still perceived by the majority of respondents as an important park use constraint. In this study region, efforts to make parks safer should continue.

Other statistical variations between these data sets involved a reduction in the percentage of citizens who reported parks are too far away, parks are too crowded, and lack of transportation as important constraints to their use of parks. Some of these reductions could

TABLE 3 Significant Regression Predictors of Perceived Park Use Constraints: 1991–2001^a

Constraint items	N	Gender ^b Beta		Age Beta		Race ^c Beta		Education Beta		Income Beta	
		1991	2001	1991	2001	1991	2001	1991	2001	1991	2001
Lack of time	493/537	—	—	-.31	-.29	—	.10	—	.07	.14	.11
Busy with other activities	527/536	—	—	-.22	-.16	—	.11	—	.10	.15	.14
Busy with family responsibilities	527/536	-.15	-.12	-.34	-.26	—	.08	-.11	—	.17	.15
Fear of crime	527/537	-.14	-.17	—	—	—	-.08	-.12	-.15	-.16	-.16
Pursue recreation elsewhere	520/528	—	—	-.09	-.09	—	.07	—	—	.17	.16
Lack of information	523/534	—	—	-.20	-.18	—	—	—	—	—	—
No one to go with to parks	528/537	-.13	-.09	.16	.17	—	—	—	-.08	-.20	-.15
Poor health	529/537	—	—	.15	.22	—	—	-.10	-.07	-.20	-.21
Parks are too far away	526/535	—	—	—	—	—	—	-.11	—	-.10	-.15
Don't like outdoor recreation	526/528	—	—	.09	—	—	—	—	—	-.12	-.13
No way to get to parks	529/537	—	—	.16	.14	—	-.10	-.10	-.10	-.18	-.15
Lack of public transportation	526/536	—	—	.09	.06	-.09	-.11	—	—	-.22	-.25
Parks are too crowded	595/531	—	—	—	—	—	—	-.14	-.13	—	—
Costs too much	502/521	—	-.08	—	—	-.17	-.13	-.11	-.13	-.18	-.11

^aOnly significant standardized Beta coefficients are reported here. Beta coefficients are significant at $p \leq 0.05$.

^b0 = Females, 1 = Males, ^c0 = Blacks, 1 = Whites.

be attributed to the actions of park and recreation organizations in the region. On one hand, Cleveland Metroparks had continued to acquire additional land and neighborhood trail connectors in the downtown Cleveland area (Mowen & Confer, 2003), thus easing pressure on some of the high use parks. On the other hand, the well-documented suburban sprawl in the Cleveland-Akron Metropolitan Area (U.S. Census Bureau, 2000) suggests that residents may simply be moving closer to existing park opportunities both within Cuyahoga County *and* in its neighboring counties (e.g., much of the Park District's land exists within the outlying suburbs of Cleveland). In no instances did park use constraints increase significantly over this 10-year time period.

Changes in park use constraints, however, could have also been influenced by factors independent of the efforts of Cleveland regional and city park agencies. Most notably, the study was done approximately one month after terrorist attacks in New York City and Washington D.C. The events of September 11, 2001, dramatically affected leisure and tourism industries in the United States. Shortly after 9–11 many people throughout the United States (and the world) avoided traveling (World Tourism Organization, 2001) due to fear of terrorist activity. This meant Americans increasingly chose to spend a larger share of their leisure time closer to home than they had previously. The observed changes in perceptions of park safety and accessibility between 1991 and 2001 may reflect general changes in people's beliefs about travel and safe places. Local parks regarded as unsafe or inaccessible prior to September 11 may have become regarded as relatively safe. Future research, however, is needed to determine the extent to which the observed changes are particular to the Greater Cleveland area or can be generalized to park districts throughout the United States.

Trends in Desired Constraint Negotiation Strategies

In addition to examining trends in perceived park use constraints, we also explored whether shifts in support for specific constraint reduction strategies existed. Overall support for such strategies was consistent over the 10-year period, and corresponded with the reporting of park use constraints. Providing more park information, providing more park activities, and making parks safer were cited as strategies most likely to stimulate additional park use. Based upon the findings from the 1991 study, local park agency staff made an explicit effort to promote and program to non-user and infrequent user groups (Christyson, 1994). For example Cleveland Metroparks staff found that special events and festivals were more likely to attract infrequent users (such as older adults, females, and lower income families). Periodically, Cleveland Metroparks staff switched venue locations as a way to specifically acquaint non-users and infrequent users with park areas across the county. Despite such efforts, our data support the notion that perceived park use constraints and preference for constraint reduction strategies were relatively inelastic despite increased park visitation at the regional level. This conclusion leads us to ponder if a saturation point exists where the public's desire for more information and activities cannot be satisfied nor significantly altered by the efforts of individual park and recreation organizations. Nevertheless, the strategy of making parks safer as a desirable constraint reduction strategy was less critical in the 2001 study than in the 1991 study. Although safety was still a concern, this finding corresponds with reductions in perceived fear of crime and suggested that park organizations may be making progress toward reducing this park use constraint at the regional level.

Finally, the negotiation strategy of providing assistance with the care of children/other family members declined in importance over this 10-year period. Such decline may be explained by a concern over recent pedophilia incidents at non-profit and public organizations. The decline might also be explained by an increased desire to include all family members in

park and recreation activities as opposed to participating in adult-only activities or leaving children to be supervised separately by park staff.

Relationships Between Socio-Demographic Characteristics and Park Use Constraints

Change and stability were evident when examining the relationship between socio-demographics and constraints between 1991 and 2001. Some demographic variables showed more pronounced changes than others. Constraints related to lack of time and being busy with family responsibilities were consistently a function of being white and in a higher socio-economic bracket while constraints related to park access and desired social services (e.g., child care, public transit) were consistently a function of being Black and in a lower socio-economic bracket.

We found that constraint trends were fairly stable for low and high-income respondents represented in these samples. For the higher income group, however, constraints regarding time famine and being too busy with family responsibilities decreased slightly over time. Conversely, lower income groups reported a decrease in constraints related to park access. This decrease could be due to the development of the 295-acre Ohio and Erie Canal reservation, which opened in 1999 and is located near densely populated urban neighborhoods inhabited by lower-income families.

In 1991 age and the constraint of not liking outdoor recreation were positively related. This relationship was not significant in 2001. At least three causes for this change may exist. First, although age and this constraint item were significantly related in 1991, the strength of that relationship was not strong (See Table 3). The failure to find consistencies in these relationships over time raised the possibility of random occurrences in the data. Second, it could be that we observed a generational shift in attitudes about participation in outdoor recreation during the 10-year period. The 1991 sample may have included a cohort of older adults who did not value outdoor recreation and visiting parks. This cohort may have been partly replaced by a cohort of older adults who did. Finally and relatedly, it could be that in the post 9-11 era, outdoor recreation close to home has become a viable pursuit for young and older adults.

In 1991 few differences existed between Blacks and Whites regarding their perception of constraints. In 2001, however, many notable changes emerged between Blacks and Whites. Constraints related to fear of crime and transportation to parks were more likely to be cited by Black citizens. These relationships may be indicative of compositional effects (i.e., minority citizens represent a growing percentage of Cuyahoga County citizens) and the limited resources made available to these citizens. Despite Cleveland Metroparks and the City of Cleveland's efforts in developing and promoting parks closer to neighborhoods with high concentrations of Black citizens, a continued perception appears that cost, transportation, and fear of crime are important constraints to their use of public parks. Similarly, the continued desire for public transportation and child care support strategies among these groups reinforced the importance of continued, collaborative efforts between public transit, social services, and park agencies to promote park awareness and visitation among these citizens. However, park managers need not rely solely on public transportation to enhance park access. Given that Black citizens and citizens with lower education levels indicated they had no way to get to parks, an alternative negotiation strategy could be to develop parks, trails and greenway systems to facilitate park access through means other than automobiles and mass transit. In other words, developing parks and trails directly adjacent to lower SES neighborhoods or creating walking/bicycling connections among numerous neighborhoods and parks might stimulate visitation among these populations. Safety, crime, and maintenance issues, however, must be carefully considered in planning such strategies. Citizen

participation in park and transportation planning may also be fruitful to identify issues, create a more in-depth understanding of their constraints, and discover their preferences for park and recreation amenities. In addition, more programming at existing parks used by these populations, and more visible park rangers in these particular parks could increase perceptions of safety, increase park use, and therefore, decrease the perceived risk of crime.

Conclusions and Implications for Future Constraint Trend Research

This investigation sought to build upon existing constraint literature by examining the change and stability in park use constraints and desired constraint negotiation strategies over a 10-year period. Our trend analyses also involved a discussion of one park agency's efforts to minimize park use constraints and how their efforts may have influenced subsequent constraints and constraint negotiation preferences. Consistent with prior research (Witt & Jackson, 1994), and with a few notable exceptions, we found that perceived constraints remained remarkably stable across time. In addition, our analyses indicated that preferences for constraint negotiation strategies were consistent with the stability/change of perceived constraints themselves. Given that diverse populations are not equally affected by leisure constraints and constraint negotiation strategies (e.g., Henderson & Bialeschki, 1991; Jackson & Scott, 1999; Scott & Jackson, 1996; Scott & Munson, 1994), we also examined trends in the relationship between socio-demographic characteristics and constraints as well as constraint negotiation preferences. Changes in such relationships may provide evidence of an organization's progress in reducing constraints among targeted sub-populations. Like the stability of perceived constraints, the relationships between demographic characteristics and constraints were also stable across these two time periods. Consistent with prior literature (Scott & Jackson, 1996; Scott & Munson, 1994), we found that constraints and constraint negotiation strategies varied in their impact upon older adults, Black citizens, females, and citizens with lower socio-economic resources. Across time, Black citizens and residents with lower socio-economic status were more likely to be constrained by the level of park access and affordability, while Whites and citizens of higher socio-economic status were more likely to be affected by time constraints such as too busy with other activities, and too busy with family responsibilities. The reader is cautioned that, despite our efforts to weight the data according to population distribution in the Cleveland-Akron CMSA, both the 1991 and to a lesser degree the 2001 samples under-represented low income and Black citizens. Future constraint trend analyses could specifically target these groups to verify if the trends found in this study also apply to these sub-populations.

This research offers several implications for future constraint theory inquiry and practice. First, given that a few shifts did occur across demographic sub-populations, our study underscores the importance of not only examining descriptive findings from one study to another, but also the relationships among variables with datasets and assessing/discussing contextual changes within the study environment (e.g., economic, social, political) (Jackson & Witt, 1994). Our study was limited, however, in that changes in organizational practices and environmental conditions could only be inferred. We were unable to quantify, document, control, and analyze the influence of these factors across both study periods. Moreover, while our trend analyses included identical measures, it was still a cross-sectional rather than a true longitudinal analysis. Panel data are needed to more fully understand changes in constraints over time. Panel data would allow researchers to better understand changes and continuity in constraints over time by controlling for changes in role statuses, health, and other factors. Future quasi-experimental studies linking organizational practices to the perceived constraints and negotiation preferences among subjects would strengthen the conclusiveness of our research findings. Furthermore, to maintain the consistency of our measures across

this 10-year period, we were unable to address measurement refinements and conceptual progress made within the constraints literature over the past 10 years. As a result, many of our measures focused predominately upon structural forms of constraints rather than intra-personal and inter-personal constraints (Samdahl & Jekubovich, 1997). Moreover, other intra-personal negotiation strategies beyond an organization's efforts could have a more direct impact upon increasing park use. Given our efforts to maintain consistent measures between the two study periods, such strategies were not included our study.

Future trends analyses could also include a more comprehensive and theoretically sound constraint classification and should consider negotiation strategies that both individuals and organizations could pursue to increase park use. Future constraint analyses could also add to the generalizability of leisure research by examining whether the stability and change in park use constraints are similar in rural areas especially in communities where there are significant shifts in the growth/decline in available parks and open-space. Finally, our study centered upon individual perceptions rather than comparing actual park behavior. As noted by Scott and Jackson (1996), there is no reason to believe that reported constraints and constraint negotiation strategies would change actual park use behaviors. In our particular study environment, however, it appeared that this particular park organization was successful in increasing park use, particularly among key sub-populations (e.g., in 2001 Black citizens were more likely to indicate that they had visited a park than reported in 1991). As local park organizations re-focus their programs and policies toward outcome-based benefits, they will need to continue to monitor the change and stability in their citizens' leisure constraints and whether such constraints are being influenced by their organizational policies and/or by individual negotiation strategies.

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