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A Comparison of Preferences and Perceptions of Alternate Equity Operationalizations

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Seven operationalizations of equity that offer alternate criteria for allocating resources for leisure services were assessed using residents in a Texas city. The operationalizations were compensatory, equality, taxes paid, direct price, efficiency, advocacy and professional judgment. Two samples of data were selected using mail surveys of 903 households and by personal delivery and pickup at 200 additional minority households. A preference/perception grid showed professional judgment as being the only operationalization which received an above average score on both scales. Differences in residents' preferences and perceptions were related to gender, ethnicity and home value and not related to years of residence in the community or frequency with which residents used park and recreation services.

When elected officials, administrators or program leaders make a decision about who receives a given quantity or quality of a leisure service, they make a decision about equity. Resource decisions usually have an opportunity cost that result in winners and losers. Most people agree that decisions should be "equitable." However, when equity is operationalized, disagreement can emerge about what this complex concept means and what the implications are since equity has multiple and diverse operationalizations.

A taxonomy of alternate equity operationalizations was proposed by Crompton and Wicks (1988). Tentative single-item measures of the operationalizations were offered by Wicks and Crompton (1986; 1987) and Crompton and Lue (1992). Their taxonomy recognized four conceptualizations of equity they termed compensatory, equality, market and demand. Compensatory equity involves allocating services so economically disadvantaged groups, individuals or geographic areas receive extra increments of resources. Equality entails allocating resources so either all residents receive equal input allocations for leisure services or they have equal opportunity to access them. Market equity entails allocating leisure services to groups or neighborhoods in proportion to the fee or tax revenues they produce, or based on the efficiency with which they can be delivered. The demand

operationalization allocates resources on the basis of residents' advocacy or judgments by park and recreation professionals who are sensitive to community issues.

These diverse operationalizations of equity span the political spectrum. The questions they address ("Who gets what?" and "Who ought to get what?") are the core issues of political debate. Wicks and Crompton (1987) offered a five-stage Equity Implementation Model (EIM) suggesting how preferred equity operationalizations should be identified and implemented in a community. This approach provides a research driven rational alternative to the heated political rhetoric that typically characterizes the process by which decisions about the allocation of leisure resources are made.

Stage 1, the normative allocation phase of the EIM, seeks to determine the prevailing preferred equity operationalizations of community residents. Crompton and Lue (1992) observed, "If public agencies are committed to adopting marketing or consumer-oriented approaches to providing services, then it is reasonable to expect that part of this consumer orientation will require incorporating the public's preferred equity guideline into service allocation decisions" (p. 232). This first stage heightens awareness of a population's equity perspectives that will facilitate more responsive decision making and identify sources of potential conflict when making allocation decisions.

Stage 2 of the EIM documents the existing service distribution patterns. Stage 3 synthesizes information obtained from the first two stages so that equity objectives are set and prioritized to reconcile disparities between existing service distribution patterns and residents' equity preferences. Stages 4 and 5 involve evaluation of the implemented policy and its subsequent modification.

The only studies found that have addressed the Stage 1 normative preferences are reported by Wicks and Crompton (1986, 1987) and Crompton and Lue (1992). In the earlier of their two studies, Wicks and Crompton (1986) used samples of parks and recreation directors and Texas residents. They reported that both samples overwhelmingly supported the view that parks should be allocated to all areas equally, rather than on the basis of compensatory, market or demand criteria. Subpopulation groups had some slight disparities in views that were primarily accounted for by greater support for the compensatory equity approach by low-income, elderly and African American respondents. Presumably these respondents perceived they would receive disproportionately fewer benefits from this equity guideline.

Wicks and Crompton (1987) later hypothesized that different equity operationalizations would be favored for different types of park and recreation services. They tested their hypotheses on samples selected from three populations in Austin, Texas: residents, park and recreation department employees and present and former city council members. Respondents reacted to eight operationalizations of the four different equity conceptualizations: economically disadvantaged (i.e., compensatory); equal inputs and equal outputs (i.e., equality); taxes paid, direct price and least cost alternative (i.e., market); and demonstrated use and vociferous advocacy (i.e., demand). Within each of the three subpopulations, preferences for equity operationalizations differed significantly for each of the seven services. However, within the residents' sample, there were some patterns. With one exception, the market equity operationalizations received little support with the taxes paid option strongly rejected and ranked as least favored of the eight equity operationalizations for all types of services. The exception was athletics, where the preferred option was that fees should cover costs, which was a market equity operationalization.

Crompton and Lue (1992) used a probability sample of 971 California residents to ascertain preferences among the same eight equity operationalizations as a basis for allocating park and recreation resources. The most preferred operationalizations were those based on demonstrated use, fees that covered operating costs (i.e., direct price) and areas

that had the fewest facilities (i.e., equal outputs). The compensatory and equal input guidelines were the most controversial. The least support was shown for allocations based on amount of taxes paid and least cost alternative. Significantly greater support was shown for the economically disadvantaged operationalization among low income and ethnic minority groups, while higher income groups were significantly more supportive of the direct price paid operationalization. These findings mirrored the earlier Texas (Witt & Crompton, 1986) and Austin studies (Witt & Crompton, 1987a).

These three studies differed in the populations sampled, number of equity operationalizations considered and question formats used. Further, within each study standards for acceptable operationalizations of equity varied widely among respondents. Nevertheless, consistent patterns were found across the three studies. In each study, respondents reacted least favorably to the operationalization suggesting that higher priority should go to areas that pay the most taxes. The stark antithesis of this guideline to the compensatory and equality operationalizations that have traditionally been used in the leisure field appeared to make allocations based on a taxes paid premise unacceptable. The advocacy and efficiency operationalizations also were ranked low in both the Austin (Witt & Crompton, 1987a) and California (Crompton & Lue, 1992) samples, sixth and seventh, respectively. Despite their low ratings, these operationalizations are common approaches used by decision makers.

Study Objectives

This study had three objectives:

(i) To measure the preferences of seven equity operationalizations within a sample of city residents. The multi-item approach of our study extends previous work that addressed only single-item measures.
(ii) To compare preferences with perceptions of the equity operationalizations that currently prevail in allocating park and recreation resources in the city. Comparing beliefs regarding what equity operationalizations ought to be used with perceptions of those that currently prevail in the community has not previously been reported in the leisure literature.
(iii) To identify differences in preferences and perceptions of prevailing equity operationalizations among subgroups within the city's population.

Methods

Two methods of data collection were used. The data collection instrument used for a mail survey was a 23-item scale that measured seven operationalizations of equity. The items are shown in Table 1. The scale was developed using the classic procedures suggested by Churchill (1979). Its reliability, validity and dimensionality have been demonstrated (West, 2004). The items were presented to respondents on five-point scales ranging from 1 = strongly disagree to 5 = strongly agree. The rubric at the head of the set of items was designed to obtain residents' *preferred* equity operationalizations and said, "Please respond to each of the statements below by selecting the number that shows how much you agree or disagree with the statement regarding how the city SHOULD designate park and recreation funding." Subsequently, respondents were asked to address the same set of items with a rubric that was designed to elicit residents' *perceptions of the prevailing* equity operationalizations used by the city and said, "Please respond to each of the statements below by selecting the number that shows how much you agree or disagree with the statement regarding how the city PRESENTLY designates park and recreation funding." The two sets of scales were separated by a set of demographic questions. Respondents were

TABLE 1 The Seven Equity Operationalizations and the Items Used to Measure Them

Compensatory
- provide more p&r services in neighborhoods whose residents have limited transportation alternatives.
- provide more p&r services in neighborhoods with the highest crime rates.
- provide more p&r services in neighborhoods with the most low-income residents, because those residents have less money to spend on alternatives.
- use program fees collected from higher income residents to help subsidize low-income residents who want to participate.

Equality
- provide the same quality of p&r services in all neighborhoods of the city.
- provide the same p&r services (e.g. size of park or gym, number of things to do there—playgrounds, ball fields, pools) in all neighborhoods of the city.
- provide equal amounts of services to all neighborhoods regardless of cost.
- provide equal amounts of services to all neighborhoods regardless of the amount of property taxes paid.
- provide equal amounts of services to all neighborhoods regardless of need.

Taxes Paid
- provide more P&R services in neighborhoods whose residents pay the most property taxes.
- provide equipment and staffing for recreation programs in proportion to the amount of property taxes paid by neighborhoods.
- provide higher quality p&r services to neighborhoods whose residents pay higher property taxes.
- provide park maintenance resources in proportion to the amount of property taxes paid by neighborhoods.

Direct Price
- provide more p&r services in neighborhoods where user fees are likely to cover the cost of providing staff and equipment to run the program.
- provide more p&r services in neighborhoods where they will be used primarily by residents who can afford to pay for them through user fees.

Efficiency
- provide more p&r services in neighborhoods where the cost to maintain them is lowest.
- build new facilities where land is least expensive.
- provide more p&r services in neighborhoods where the costs of delivering services are lowest.

Advocacy
- provide more p&r to those neighborhoods whose residents complain most to the city.
- provide more p&r services to those neighborhoods whose residents are most persistent in making requests to the city.

Professional Judgment
- provide p&r services according to decisions made by p&r professionals because they will be more knowledgeable of the issues involved than taxpayers.
- make decisions on where to add new p&r services based on the opinions of p&r professionals because they are aware of community interests.
- provide p&r services based on the opinions of p&r professionals because they are most aware of community growth patterns.

asked their gender and ethnicity, the length of the time they had resided in the city and the frequency of using the city's park and recreation services. A surrogate measure of their economic status was derived by using the appraised values of respondents' homes, which were obtained upon request from the tax appraiser's office. The instrument was administered to a sample of residents from a Texas city with a population of 65,000. The city's list of utility customers was used as the sampling frame with 1,000 names randomly selected by a computer program. Of these, 903 names and addresses were residential locations and were usable.

Administration of the mail survey followed a modified Dillman technique (Dillman, 2000). Each sample household was mailed an envelope addressed to the name supplied by the utility company using city stationary. The envelope contained a personalized cover letter on letterhead, a questionnaire and a postage-paid business reply envelope. The cover letter was signed by the director of the city's Parks & Recreation Department and two community activists who were well known among the minority populations of the city. One activist was the founder and chair of the city's African American History Museum, while the other was a member of both the Hispanic Forum and the League of United Latin American Citizens (LULAC). A fluorescent mailing label imprinted with the statement "Respondents will be placed into a drawing to win one of five prize packages worth $50 each!" was placed on the bottom right-hand corner of the cover letter.

A reminder postcard asking residents to complete and return the questionnaire and thanking them if they had already done so was mailed 10 days following the initial mailing of the surveys. Two weeks after the initial mailing, a second cover letter, questionnaire and reply envelope were sent to households that had not responded. Another two weeks later, a third cover letter, questionnaire and reply envelope were sent to households that still had not responded. Of the 903 households surveyed, 47 surveys were undeliverable and 423 usable surveys were returned resulting in an effective response rate of 49%.

The likely response rate from a mail survey to minority and/or low-income residents was an a priori concern since these response rates tend to be lower than those of Caucasian and/or more affluent respondents (Kauff, Olsen, & Fraker, 2002). Therefore, additional data were also collected in person within neighborhoods comprising residents reflecting these characteristics to ensure better representation. For this reason, a second method of purposive data collection was used targeting minority and low-income neighborhoods. A map of low-income census tracts/block groups identified in the 2000 Census was obtained from the local housing development authority. Neighborhoods were then selected by the researchers based on their low-income designation by the 2000 Census, their density (i.e., only neighborhoods with at least 80% development were selected so as to facilitate efficient data collection) and the perceived ethnic composition of the neighborhood based on the opinions of a representative from the local housing development authority. A targeted area defined by street boundaries was selected from each voting district to ensure the sites were geographically dispersed across the community to capture differences based on variances in the distribution of park and recreation services. On the day that the third round of the mail survey was mailed, surveys were personally delivered and handed to an adult in each home in the targeted area and collected later that day. Of the 203 delivery attempts made, 20 households refused to participate and 61 who agreed failed to complete the questionnaire. The 122 completed surveys represented a response rate of 60%.

Results

As expected, the response rates among minority respondents were enhanced by the inclusion of the personal delivery sample so they more closely resembled the community profile

reported in the 2000 Census. Response rates for African Americans went from comprising 11.4% of the sample using mail only methods to 16.5% when on-site data collection was included. Among Hispanic/Latino residents, response rates went from 12.8% to 14.9% of the sample. According to the 2000 Census, African Americans and Hispanic/Latino residents made up 17.7% and 27.8% of the population, respectively. Respondents had lived in their community for a mean length of 30.6 years and a median length of 29 years. Most respondents (37.7%) used the city's park and recreation services less than one time each month. The appraised values of respondents' homes ranged up to $927,930 with a mean value of $87,659 and a median value of $72,775. To best accomplish the first two goals of this research, a grid plotting the mean preference and perception scores was used to: a) identify residents' equity preferences and b) compare results to their perceptions of the equity operationalizations that currently prevail in allocating park and recreation resources in their city. The grand mean scale scores among the seven equity operationalizations (2.83 on the preference scale and 3.02 on the perception scale) were used as the axis mid-points. Figure 1 shows professional judgment as being the only equity operationalization which received an above average score on both the preference and perception scales, suggesting that residents consider this to be frequently used and are comfortable with it.

Equality scores were well above the mean on preference and slightly below the mean on perception suggesting that additional efforts should be directed toward enhancing perceptions that resources are allocated based on equality. This effort could occur either through changes in actual allocation processes or through communication efforts designed to rectify any misplaced belief that equality is not a widely used operationalization. Residents had relatively low preference for allocating resources based on taxes paid so their perceptions that the city did not give much prominence to this approach could be regarded as a compliment to the city since resources were not being unnecessarily diverted towards this end. Respondents perceived that advocacy was prominently used to allocate resources.Advocacy was
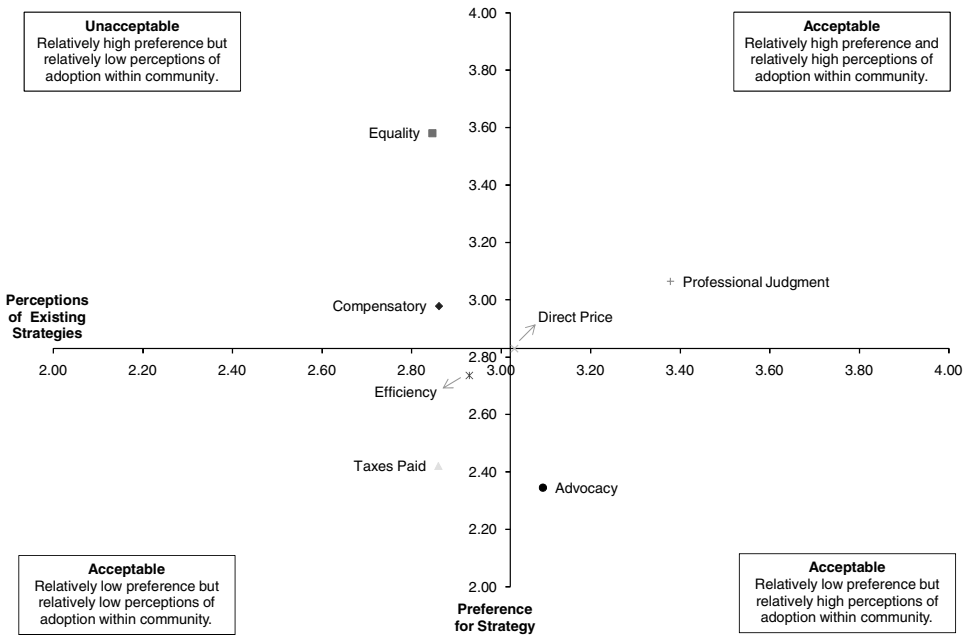

FIGURE 1 Grid plotting residents' preferences for alternate equity operationalizations with their perceptions of the extent to which they are adopted.

TABLE 2 Independent t-test Results: Mean Equity Preferences and Perceptions Based on Gender

Dimension	Preferences		Perceptions	
	Male	Female	Male	Female
Compensatory	2.89*	3.07*	2.93*	2.78*
Equality	3.41*	3.76*	2.86	2.83
Taxes paid	2.42	2.42	2.74*	3.00*
Direct price	2.90	2.77	2.96*	3.11*
Efficiency	2.71	2.74	2.88	2.98
Advocacy	2.31	2.36	3.10	3.08
Pro. judgment	3.14	2.98	3.41	3.35

Note. Mean scores for each preference and perception operationalization represent averages derived from instrument scale items.
*$p < .05$

perceived to be second to professional judgment in frequency of use, but residents regarded it as the least desirable option. If city officials are committed to being responsive to those they represent, the need becomes obvious for transparency in demonstrating they are not yielding to advocacy when making resource allocation decisions.

Independent t-tests, a multivariate analysis of covariance (MANCOVA) and multiple classification analyses (MCAs) were undertaken on sociodemographic and level of use variables to address the third research objective to compare preferences and perceptions of operationalizations used by the city. The analyses indicated no significant differences in preferences or perceptions for any of the seven equity operationalizations among residents with different tenure of residency in the community or with different frequencies of use of the city's park and recreation services. However, some differences did emerge regarding gender, different ethnic groups and different home appraisal values.

Independent t-tests revealed that females were significantly more supportive of the compensatory operationalization but perceived it to be less prominently used (Table 2). Females also were significantly more favorable toward the equality approach and significantly more likely to perceive that the city adopted the taxes paid and direct price criteria to allocate park and recreation resources.

To understand the relationship of respondent ethnicity and equity preferences and perceptions, a multivariate analysis of covariance (MANCOVA) was used (see Tables 3 and 4). As part of this analysis, differences based on the method of data collection were also explored. Thus, ethnicity (i.e., African American, Caucasian, Hispanic/Latino or other) and methodology (i.e., mail or on-site) served as the independent variables and equity preferences and perceptions were dependent variables. Since ethnicity and income are frequently associated, a proxy for income, the resident's appraised home value, was entered as a covariate.

A nonsignificant main effect for data collection method indicates that residents' equity preferences and perceptions were the same regardless of the method used to collect the data (i.e., mail-back or on-site). Further, no significant difference was observed in respondents' equity preferences and perceptions when adjusted for the covariate, the appraised value of the resident's home (Tables 5 and 6). We concluded, therefore, that the two different approaches used to collect data did not influence residents' equity preferences and perceptions.

TABLE 3 Equity Preference Mean Scores and Standard Deviations for Each Ethnic Group

Preference dimension	African American				Caucasian				Hispanic/Latino				Other			
	Mail		On-Site		Mail		On-Site		Mail		On-Site		Mail		On-Site	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Compensatory	3.34	.69	3.25	.66	2.83	.77	3.19	.72	2.98	.76	3.17	.88	2.72	.88	3.22	.68
Equality	4.11	.61	4.10	.79	3.41	.79	3.31	.66	3.44	.95	3.94	.70	3.55	.61	3.77	.38
Taxes paid	2.41	.80	2.45	.82	2.41	.84	2.17	.64	2.56	.79	2.74	.87	2.67	.84	2.26	.48
Direct price	2.90	.89	2.73	.71	2.87	.81	2.47	.61	3.01	.76	3.18	.83	2.90	.91	2.65	.69
Efficiency	2.87	.76	3.08	.73	2.62	.67	2.57	.50	3.03	.69	3.15	.86	2.61	.66	2.95	.56
Advocacy	2.79	.98	2.56	.76	2.15	.75	2.39	.69	2.39	.88	2.72	1.00	2.49	.90	2.25	.49
Prof. judgment	3.29	.83	2.89	.81	3.10	.95	2.96	.73	3.02	.98	3.08	.83	2.89	.99	3.25	.69

TABLE 4 Equity Perception Mean Scores and Standard Deviations for Each Ethnic Group

Perception dimension	African American				Caucasian				Hispanic/Latino				Other			
	Mail		On-Site		Mail		On-Site		Mail		On-Site		Mail		On-Site	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Compensatory	2.57	.74	2.53	.79	2.90	.77	2.78	.53	2.89	.74	3.12	.91	2.91	.84	3.05	.56
Equality	2.84	1.10	2.63	1.08	2.79	.77	2.74	.67	2.85	.84	3.14	1.01	2.56	.80	2.94	.29
Taxes paid	2.96	.92	3.24	.97	2.84	.78	3.00	.66	2.91	.81	2.82	.96	2.56	.79	2.94	1.23
Direct price	2.87	.79	3.47	.82	3.03	.72	2.95	.77	3.12	.68	3.05	.87	2.98	.89	2.94	.55
Efficiency	2.77	.72	3.04	.77	2.89	.61	3.13	.54	2.91	.67	3.02	.78	2.88	.69	3.02	.39
Advocacy	3.26	.83	3.34	.98	3.06	.82	3.08	.71	3.29	.86	3.13	1.02	3.05	.94	2.45	.38
Prof. judgment	3.37	.84	3.46	.76	3.41	.74	3.38	.58	3.28	.79	3.18	.90	3.39	.66	3.62	.33

417

TABLE 5 MANCOVA Findings Describing the Relationship of Ethnicity and Survey Methodology on Equity Preferences

Variable	MANCOVA F(8, 425)	ANCOVA						
		Compensatory F(8, 425)	Equality F(8, 425)	Taxes Paid F(8, 425)	Direct Price F(8, 425)	Efficiency F(8, 425)	Advocacy F(8, 425)	Prof. Judgment F(8, 425)
Home appraised value	2.17*	4.11	5.14*	.37	.03	.05	5.92*	.60
Methodology (M)	1.46	4.25	1.65	.75	2.17	2.26	.06	.05
Ethnicity (E)	3.37*	2.04	11.70**	2.51	3.11	7.60**	3.67	.05
M × E	1.47	1.34	2.01	1.20	1.31	.75	1.73	1.14

Note. F ratios are Wilks' approximation of Fs. MANCOVA = multivariate analysis of covariance; ANCOVA = univariate analysis of covariance.
$^* p < .05,$ **Bonferroni adjusted alpha level: $p < .007.$

TABLE 6 MANCOVA Findings Describing the Relationship of Ethnicity and Survey Methodology on Equity Perceptions

		ANCOVA						
Variable	MANCOVA $F_{(8, 433)}$	Compensatory $F_{(8, 433)}$	Equality $F_{(8, 433)}$	Taxes Paid $F_{(8, 433)}$	Direct Price $F_{(8, 433)}$	Efficiency $F_{(8, 433)}$	Advocacy $F_{(8, 433)}$	Prof. Judgment $F_{(8, 433)}$
Home appraised value	3.54*	.07	1.15	10.57*	10.20*	3.30	2.90	.35
Methodology (M)	1.27	.19	.02	1.86	1.77	3.61	1.55	.16
Ethnicity (E)	1.62*	4.05**	2.39	1.34	.82	.33	2.43	1.05
M × E	1.11	.77	.96	.66	3.15	.20	.94	.32

Note. F ratios are Wilks' approximation of Fs. MANCOVA = multivariate analysis of covariance; ANCOVA = univariate analysis of covariance.

* $p < .05$, ** Bonferroni adjusted alpha level: $p < .007$.

419

A significant relationship was observed between residents' appraised home value and their perceptions of whether taxes paid or direct price equity models were used. However, while statistically significant, observed effect sizes were small and accounted for only 2.4% and .2.3% of the variance, respectively.

MANCOVA results indicated that ethnicity had a significant relationship with residents' equity preferences and with one of their perceptions. Two differences were observed by ethnicity in respondents' equity preferences and one difference was observed in respondents' equity perceptions. Residents' preferences for equality ($F(1, 441) = 11.704$, $p = .000$, partial eta squared $= .076$) and efficiency ($F(1, 441) = 7.698$, $p = .000$, partial eta squared $= .052$) differed by ethnicity. To pinpoint differences in equity preferences and perceptions, a Bonferroni post-hoc analysis was conducted using a Bonferroni adjusted alpha level of .007 (summative alpha $= .05$), An inspection of covariate-adjusted mean scores indicated that both African Americans and Hispanic/Latino residents were significantly more likely to prefer efficiency equity models than Caucasians. Regarding equality equity models, African Americans were significantly more likely to prefer equality equity than Caucasians and Hispanic/Latino residents. The only differences found among residents' perceptions of current allocation strategies were observed in their perceptions of compensatory equity ($F(1, 441) = 2.348$, $p = .000$, partial eta squared $= .027$). Bonferroni post-hoc tests and adjusted means indicated that Hispanic/Latino residents were significantly more likely than respondents of other ethnicities to agree that compensatory equity was being applied in their community. A complete summary of mean preference and perception scores is presented in Tables 7 and 8.

To ascertain the combined effect of the profile variables, separate Multiple Classification Analyses (MCA) were undertaken on each of the seven operationalizations of equity. MCA, an additive form of ANOVA, is a unique tool with the strategic purpose of examining the interrelationships between multiple predictor variables and a dependent variable (Andrews et al., 1973). It provides information on how each profile variable relates to the dependent variable both before and after adjusting for the effects of the other predictor variables (Andrews et al., 1973). MCA shows the effect of predictors using unadjusted and adjusted deviations. Unadjusted deviations indicate the effect of the predictor, while

TABLE 7 Differences in Mean Scores on Equity Preferences among Different Ethnic Groups

Preference dimension	Ethnicity							
	African American		Caucasian		Hispanic/Latino		Other	
	M	SD	M	SD	M	SD	M	SD
Compensatory	3.30	.67	3.00	.77	3.07	.79	2.97	.85
Equality	4.10[a,b]	.68	3.36[a]	.78	3.69[b]	.91	3.66	.56
Taxes paid	2.43	.80	2.29	.82	2.65	.81	2.43	.77
Direct price	2.82	.83	2.67	.80	3.06	.78	2.77	.85
Efficiency	2.98[a]	.75	2.60[a,b]	.66	3.09[b]	.74	2.78	.64
Advocacy	2.68	.90	2.27	.75	2.56	.93	2.37	.81
Prof. judgment	3.09	.84	3.03	.93	3.05	.93	3.07	.92

Note. Means in a row sharing superscripts are significantly different. For all measures, higher means indicate stronger agreement.

*$p < .05$ corrected to $p < .01$.

TABLE 8 Differences in Mean Scores on Equity Perceptions among Different Ethnic Groups

Perception dimension	Ethnicity							
	African American		Caucasian		Hispanic/Latino		Other	
	M	SD	M	SD	M	SD	M	SD
Compensatory	2.55[a]	.75	2.84	.75	3.00[a]	.80	2.98	.78
Equality	2.73	1.09	2.77	.76	2.99	.90	3.20	.71
Taxes paid	3.10	.94	2.90	.77	2.86	.86	2.75	.89
Direct price	3.17	.85	2.99	.72	3.08	.74	2.96	.81
Efficiency	2.91	.75	3.01	.61	2.97	.70	2.95	.63
Advocacy	3.30	.88	3.08	.81	3.21	.91	2.75	.88
Prof. judgment	3.41	.80	3.40	.72	3.23	.82	3.50	.60

Note. Means in a row sharing superscripts are significantly different. For all measures, higher means indicate stronger agreement.

*$p < .05$ corrected to $p < .01$.

adjusted deviations indicate the effect of the predictor after adjusting for the effect of other predictors. The ability of the predictors to explain variation in the dependent variable is measured by eta, an unadjusted correlation ratio, and by beta, the equivalent of a standardized regression coefficient(Petrick, Backman, & Bixler, 1999).

Significant differences were reported by the MCAs in eight of the ANOVAs conducted on the separate 14 equity operationalizations (Table 9). The MCA results are shown in Tables 10 and 11. Each section from Tables 10 and 11 shows the deviation from the mean of that equity operationalization for each category of the independent variables that were

TABLE 9 Results of ANOVAs Undertaken on each Equity Operationalization

Operationalization	Main *DF*	Total *DF*	*F*	*p*	Adjusted Model R^2
Preference					
Compensatory	15	448	4.004	.001*	.100
Equality	15	447	5.274	.001*	.134
Taxes paid	15	451	.737	.747	n/a
Direct price	15	457	1.290	.204	n/a
Efficiency	15	455	2.402	.002*	.053
Advocacy	15	460	4.248	.001*	.103
Professional judgment	15	457	1.406	.140	n/a
Perception					
Compensatory	15	445	1.941	.018*	.040
Equality	15	447	1.354	.167	n/a
Taxes paid	15	448	3.516	.001*	.087
Direct price	15	452	1.750	.040*	.033
Efficiency	15	453	1.264	.221	n/a
Advocacy	15	454	1.716	.045*	.033
Professional judgment	15	450	.929	.532	n/a

*$p < .05$.

TABLE 10 Multiple Classification Analysis Summaries of the Significant Effects of Selected Demographic Variables on Residents' Preferences

Demographic variables	N	Unadjusted[1] deviation	Adjusted[2] deviation	Eta	Beta
COMPENSATORY PREFERENCE					
Ethnicity				.236	.174
African American	69	.35504	.25434		
Caucasian	280	−.12194	−.08006		
Hispanic/Latino	79	.16819	.12198		
Other	21	−.17343	−.22716		
Level of Income[3]				.248	.179
Low	109	.21473	.14421		
Low-medium	110	.17441	.13729		
Medium-high	111	−.11294	−.08220		
High	119	−.25256	−.18233		
Total Model R^2	.122				
Adjusted Model R^2	.100				
Grand Mean	2.97				
ADVOCACY PREFERENCE					
Ethnicity				.270	.201
African American	68	.44499	.35533		
Caucasian	292	−.16168	−.11450		
Hispanic/Latino	79	.20662	.12146		
Other	22	.02854	−.01467		
Level of Income[3]				.257	.195
Low	109	.21516	.15543		
Low-medium	110	.21945	.16094		
Medium-high	120	−.09153	−.04279		
High	122	−.30007	−.24189		
Total Model R^2	.125				
Adjusted Model R^2	.103				
Grand Mean	2.31				
EQUALITY PREFERENCE					
Gender				.218	.152
Male	233	−.17029	−.11844		
Female	215	.18455	.12835		
Ethnicity				.301	.213
African American	69	.53093	.39828		
Caucasian	280	−.15598	−.09441		
Hispanic/Latino	77	.08324	−.01660		
Other	22	.02869	.01060		
Level of Income[3]				.254	.159
Low	111	.21264	.11975		
Low-medium	107	.17959	.12052		
Medium-high	114	−.07593	−.03681		
High	116	−.29450	−.18958		
Total Model R^2	.155				
Adjusted Model R^2	.134				
Grand Mean	3.55				

TABLE 10 Multiple Classification Analysis Summaries of the Significant Effects of Selected Demographic Variables on Residents' Preferences *(Continued)*

Demographic variables	N	Unadjusted[1] deviation	Adjusted[2] deviation	Eta	Beta
		EFFICIENCY PREFERENCE			
Ethnicity				.251	.241
African American	70	.17250	.16258		
Caucasian	286	−.11950	−.11465		
Hispanic/Latino	77	.32386	.31276		
Other	23	−.12327	−.11614		
Total Model R^2	.076				
Adjusted Model R^2	.053				
Grand Mean	2.73				

[1]Deviation and [2]adjusted deviation are from grand mean. [3]Income was operationalized as the appraised value of respondent's home.

significant and the deviation from the mean when it was adjusted to control for the effects of the other variables. For example, the compensatory preference analysis represented in Table 14 shows that ethnicity and appraised home value had a significant effect on residents' preferences for a compensatory equity model, while gender and park use did not.

A more detailed look at the MCA findings from the compensatory preference analysis reported in Table 10 indicates 12% of the variance in residents' preferences for compensatory equity can be explained using the sociodemographic variables (unadjusted model R^2), while the adjusted model R^2 (10%) provides an estimate of how much variance the same predictors would likely explain if applied to a different, but comparable, set of data, such as the population from which the sample was drawn. The unadjusted deviations indicate the effect of the predictor, while adjusted deviations indicate the effect of the predictor after adjusting for the effect of other predictors. The sign and strength of the unadjusted and adjusted deviations describe the differences found based on ethnicity. A positive sign indicates agreement and a negative sign indicates disagreement and larger numbers indicate strength of agreement or disagreement.

Using the same compensatory preference example from above, both African Americans and Latinos were likely to favor compensatory equity, while African Americans were even more likely than Latinos to agree with it. The ability of ethnicity to explain variation in preference for compensatory equity is measured by eta, an unadjusted correlation ratio, and by beta, the equivalent of a standardized regression coefficient. Similar eta and beta scores for ethnicity and level of income, represented by home appraised value, suggest that compensatory preference is equally affected by these demographic variables.

The MCA findings revealed that in most cases ethnicity and appraised home value were related to residents' equity preferences and perceptions. Gender, years of residency and park use were not related. Ethnicity was found to significantly influence preferences for the compensatory, equality, efficiency and advocacy operationalizations and for perceptions of the compensatory operationalization. More Hispanic/Latino and African American residents were likely to agree that resources should be allocated using the compensatory, advocacy and efficiency models than Caucasians and Others. Hispanic/Latino residents were most likely to agree with efficiency-based allocations, while African Americans were

TABLE 11 Multiple Classification Analysis Summaries of the Significant Effects of Selected Demographic Variables on Residents' Perceptions

Demographic variables	N	Unadjusted[1] deviation	Adjusted[2] deviation	Eta	Beta
TAXES PAID PERCEPTION					
Gender				.155	.103
Male	230	−.12382	−.08222		
Female	219	.13004	.08635		
Level of Income[3]				.229	.197
Low	109	.10591	.08963		
Low-medium	111	.13806	.11440		
Medium-high	112	.08897	.08314		
High	117	−.31482	−.27162		
Park Use				.205	.176
Never	61	−.08510	−.08023		
<1 time/month	171	−.13893	−.12191		
1–4 times/month	126	.17603	.16572		
5–8 times/month	51	.23835	.18298		
9–12 times/month	23	−.29447	−.22390		
13+ times/month	17	.08149	.03985		
Total Model R^2	.109				
Adjusted Model R^2	.087				
Grand Mean	2.86				
DIRECT PRICE PERCEPTION					
Level of Income[3]				.186	.183
Low	112	.15569	.17664		
Low-medium	112	−.00503	−.00982		
Medium-high	113	.08307	.05287		
High	116	−.22639	−.21257		
Total Model R^2	.057				
Adjusted Model R^2	.033				
Grand Mean	3.05				
COMPENSATORY PERCEPTION					
Ethnicity				.165	.151
African American	66	−.29520	−.24544		
Caucasian	281	.03410	.00870		
Hispanic/Latino	76	.11509	.15290		
Other	23	.05016	.09274		
Level of Income[3]				.134	.114
Low	110	.03207	.05326		
Low-medium	111	−.16733	−.13878		
Medium-high	110	.01844	−.00832		
High	115	.11320	.09097		
Total Model R^2	.063				
Adjusted Model R^2	.040				
Grand Mean	2.85				

TABLE 11 Multiple Classification Analysis Summaries of the Significant Effects of Selected Demographic Variables on Residents' Perceptions *(Continued)*

Demographic variables	N	Unadjusted[1] deviation	Adjusted[2] deviation	Eta	Beta
ADVOCACY PERCEPTION					
Level of Income[3]				.101	.145
Low	112	−.08139	−.11248		
Low-medium	113	−.05480	−.08989		
Medium-high	111	−.00936	−.00336		
High	119	.13736	.19436		
Total Model R^2	.055				
Adjusted Model R^2	.033				
Grand Mean	3.08				

[1]Deviation and [2]adjusted deviation are from grand mean. [3]Income was operationalized as the appraised value of respondent's home.

most likely to agree with compensatory- and advocacy-based allocations. The perceived use of compensatory equity was the only equity operationalization that varied by ethnicity. African Americans were significantly less supportive of the perception that the allocation of resources in their community uses the compensatory criterion.

Home appraisal values were found to be a significant (p = .05) predictor of preferences for the compensatory, equality and advocacy criteria and for perceptions of the city's use of the taxes paid, direct price and advocacy operationalizations. The lower the value of a home, the more likely residents were to prefer the compensatory, equality and advocacy operationalizations of equity in the allocation of park and recreation resources, and the more likely they were to perceive these resources were allocated by the city according to the taxes paid or direct price operationalizations. Conversely, residents with the highest home values were most likely to perceive that the city's resources were allocated based on advocacy.

Significant differences in gender were limited to females' preference for equality-based allocations and to perceive more strongly that resources were allocated using the taxes paid approach. Years of residency was not found to be a significant predictor for any of the operationalizations. Level of park use was found to be significant only in perceptions that resources were allocated based on the taxes paid approach. Average park users (i.e., those residents who used parks between two and eight times per month) were more likely to agree that resources were allocated using the taxes paid method than residents who used the park fewer times than once per month or greater than nine times per month. These findings generally confirmed the previous univariate analyses.

Discussion

Our study addressed three research objectives related to residents' equity preferences and perceptions of the equity operationalizations that currently prevail in allocating park and recreation resources in their city. Ours is the first study in over a decade to report residents' equity preferences since Crompton and Lue (1992) reported their findings in this field. In addition, to the best of our knowledge, this study is the first to compare residents' equity preferences with their perceptions of the equity operationalizations that currently prevail in a community. This information is particularly valuable given today's political climate and

increased needs for legal and ethical accountability. Finally, similarities and differences in preferences and perceptions among subgroups are presented for consideration.

The preferred equity operationalization among the sample was equality. The mean response far exceeded the next two most preferred options of professional judgment and compensatory. The primary preference for equality was consistent with the findings reported by Wicks and Crompton (1986) who concluded: "Predominant support from both groups [residents and park and recreation administrators] was for equality equity. This finding is not surprising since it is consistent with America's prevailing traditions of equality, freedom of choice and the Fourteenth Amendment guaranteeing equal treatment under the law" (p. 360). In their subsequent study in Austin, Texas, the same authors found support for the equality operationalization among residents was ranked third of the seven alternate operationalizations but was more strongly supported by agency personnel who ranked it second, and elected officials who ranked it first (Wicks & Crompton, 1987b). They suggested the results may be because agency personnel and elected officials viewed it "as least controversial or most easily administered and least demanding of judgment" (p. 201). In a probability sample of 971 California residents, equality was ranked fourth of the eight equity operationalizations (Crompton & Lue, 1992). These diverse results emphasize the dangers of attempting to generalize equity preferences beyond the confines of the jurisdictions from which they are derived. Despite a clear preference for the equality operationalization, respondents ranked their perceptions of equality within their city as below average on the perceptions scale suggesting that equality was not receiving the degree of emphasis it warranted.

Professional judgment has not been offered as an operationalization in previous normative studies reported in the leisure literature. The relatively strong support for professional judgment suggested that residents had considerable trust in the judgment of park and recreation staff to make the "right" decisions when they allocate resources. This operationalization also was perceived to be that which was currently most widely used.

Advocacy was rated the least preferred strategy, which is consistent with the findings reported by Wicks and Crompton (1986) and Crompton and Lue (1992). Its low ranking may reflect a belief that people who are advocating may not be representative of the general view of all residents. Wicks and Crompton (1987a) investigated differences in equity preferences among residents, park and recreation employees, and elected officials. They reported that park and recreation department employees were significantly more supportive of using the advocacy operationalization than were residents. They were surprised by this finding because the citizen sample used in their study comprised individuals belonging to citizen groups who might be expected to support resource allocations based on their ability to effectively influence public policy. Wicks and Crompton's (1987a) recommendations of 20 years ago appear to be germane to the findings of this study:

> Policies on citizen contacts with the agency should be reviewed. Mladenka (1978), Jones (1980), Nivola (1979) and others have confirmed that clientele contact behavior often dictates service allocation. Given this potential influence of residents and the receptivity to citizen demand shown by employees, guidelines (decision rules) for reacting to resident contacts should be re-examined. (p. 203)

A similar lack of support was shown for taxes paid. These findings confirmed other research (Wicks & Crompton, 1986, 1987a; Crompton & Lue, 1992) and reflect a widespread belief that parks and recreation are a core and "public" service that should not be disproportionately available to wealthier sections of a community.

Results indicated residents' equity perceptions and preferences were influenced by gender, ethnicity and income status as measured by appraised home value. These perceptions and preferences were not likely to be influenced by years of residence in the community or the frequency with which they used municipal park and recreation services.

Females appeared to be more supportive of strategies directed at assisting the economically disadvantaged and more inclined than males to perceive that taxes paid and direct price were used more frequently. These latter approaches are operationalizations of market equity, a broader equity construct reflecting a preference for services to be provided to those who can most afford them. This notion may be regarded as the antithesis of the compensatory conceptualization that focuses on the economically disadvantaged.

Like previous studies (Crompton & Lue, 1992; Wicks & Crompton, 1986, 1987), African Americans and low-income residents tended to disproportionately favor the compensatory and equality operationalizations perhaps because these groups perceived they would receive disproportionate benefits from these operationalizations. At the time of this study, most of the parkland development in the city was occurring in new neighborhoods in conjunction with the development of new schools. The neighborhoods where most low-income people resided tended to be fully developed leaving little opportunity for additional park development. Although renovations were made in many of the older parks, some residents from a predominantly low-income African American neighborhood were upset that a large park in their neighborhood had not yet been improved. The publicity surrounding their discontent may explain African Americans' perception that the city was using the taxes paid and direct price operationalizations.

Soliciting residents' perceptions of the equity allocation operationalizations used by the city has limitations because of the discrepancy between perceptions and reality. For example, Wicks and Crompton (1990) observed: "Residents' assessments of service allocation patterns are not always accurate. Often they do not know either who receives the most or least recreation and park services, or how a given service is funded" (p. 34). Thus, in two well-reported court cases, *Berner vs. Washington, D.C.* and *Midwest Community Council vs. Chicago Park District*, court action was initiated because minority residents of low income areas felt they were receiving less than their fair share of recreation and park services (Wicks, 1987). In each case, follow-up investigation showed that at least as many resources were expended in the minority neighborhoods as were expended in other income areas.

Findings appear to suggest that in this case there was a discrepancy between the perceptions of African Americans and lower income groups. These groups indicated perceptions that the compensatory operationalization was being adopted relatively infrequently in their community. Nevertheless, the city still has to deal with the aphorism, "perceptions are reality." The study's results highlight the need for the city to communicate the reality of the allocation of park and recreation resources to these skeptical constituent groups.

One of the goals of equity research is that it will provoke some dialogue and the data it provides will form the basis for reaching consensus on the fairness or equity operationalization to be used to allocate leisure services. Knowledge of a community and its subpopulations' equity preferences and perceptions of their current application provides a benchmark and point of departure for discussions. Allocation issues should be confronted explicitly rather than allowed to remain "the hidden function of government" (Jones, 1980, p. 2) where they are made implicitly. Decisions regarding capital investments, program development or retrenchment and pricing and regulatory concerns can only be rationally made if they are guided by a strategic policy that incorporates preferred equity perspectives.

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