

Eleven Strategies for Reducing Negative Responses to Price Increases for Public Park and Recreation Services

John L. Crompton

EXECUTIVE SUMMARY: It is now widely recognized that a cognitive processing approach is likely to be more useful for guiding park and recreation pricing decisions than the traditional approach of using neoclassical economic models. Internal reference price is the central construct in this approach. The paper briefly describes how internal reference prices are formed, and presents 11 strategies that show how internal reference price can be manipulated by park and recreation managers to minimize stakeholder resistance to price changes. Latitude of price acceptance refers to the zone around a reference price within which price increases will be accepted without question. Relationship pricing recognizes that the reference price for one service is influenced by the reference price for other services that are perceived to be similar. The most important implication of introductory pricing is that the initial price charged for a service establishes the reference price for it. The price-quality relationship suggests that in some contexts, price is used by some users as a heuristic to evaluate a service's quality. Service enhancement pricing acknowledges that users are more likely to support price increases when the resultant revenues are used to maintain and improve the resource at which they are collected. Temporal reframing involves using either a "pennies a day" approach or credit cards to lengthen the timeframe of payment, and this changes the context in which a given price is viewed. Sunk cost effect notes that if a service is fully paid for when it is first used and it is used over a lengthy time period, then commitment to it is likely to decline as time passes. A participant adjustment period occurs when a price is raised beyond the latitude of price acceptance. Odd pricing refers to the tendency for the price of a service to end with a 9 to create an illusion of a lower price. Self-esteem pricing is designed to protect disadvantaged groups from a sense of stigma or loss of dignity. Customary pricing occurs when a price is unchanged, and viability is retained, by cutting costs through reducing the quantity of service offered.

KEYWORDS: Pricing, internal reference price, behavioral pricing

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Beginning in the 1980s, McCarville, Crompton, and their associates conducted a substantial research program on behavioral dimensions of pricing in the parks and recreation field. It included identifying alternative pricing strategies (Crompton 1982; Crompton 1984a; 1984b; Crompton & Lamb, 1986), determining the role of internal reference price (McCarville & Crompton, 1987a; McCarville, 1998), and developing strategies for changing internal reference price (McCarville & Crompton, 1987b; McCarville, 1991; McCarville, Compton, & Sell, 1993; Crompton & Kim, 2001; Kim & Crompton, 2001). Others in this field who have also made contributions to this literature include Reiling, Criner, and Oltmann, (1988), Schwer and Daneshvary, (1997), and Kyle, Kerstetter, and Guadagnolo (1999).

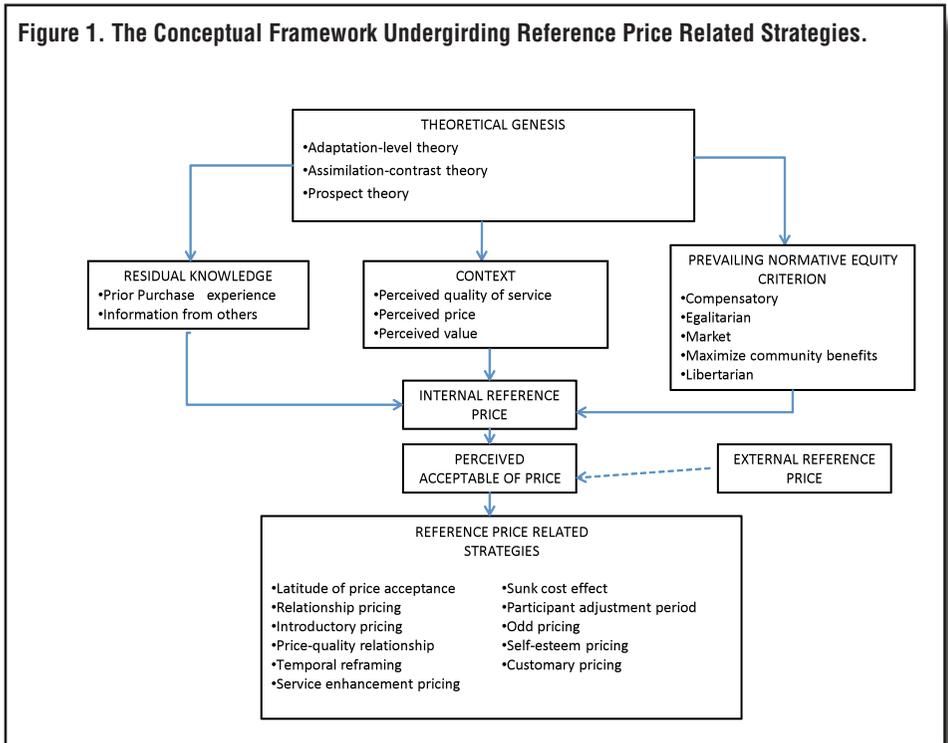
During the quarter century that has passed since this research program was initiated, in excess of 100 studies have been reported in the marketing literature on behavioral dimensions of pricing. Almost all of these studies were undertaken in the context of commercial retailing. Adapting the findings of this literature to the very different milieu of public parks and recreation has been a three-stage process. First, a theoretical framework was developed that explained behavioral responses to pricing decisions in public parks and recreation (Crompton (b), in press). This framework recognized that responses to price changes are likely to be influenced by both external and internal reference prices. Stage two was to identify and discuss strategies that embrace external reference prices (Crompton (a), in press). The complementary focus of this paper to external reference prices is on strategies whose effectiveness stems from recognition of the influence of internal reference price. Ostensibly, these strategies may appear to be independent and atomistic, but they are inter-related through their common genesis from reference price.

It is clear that neoclassical economic models of supply and demand for predicting price whose outcomes purport to measure systemic and predictable behavior at the aggregate level are incomplete. In both the marketing and leisure literatures, there has been movement away from such models toward a cognitive processing approach that focuses on the reactions of individuals to a given price or changes in price (McCarville, 1990). The economist's traditional assumption that people act rationally suggests that the manner in which a price is framed should not influence choice. However, the literature reviewed in this paper reveals that framing does influence people's responses; individuals' perceptions of price are malleable; and that the reactions of client groups to price changes are often non-rational. The non-rationality may stem from historical context, framing, analogous experiences, self-interest, or emotion. Thus, if only economic rules and rational processes for establishing a price are followed, it is likely that a price change will provoke negative reactions among users since it is likely to be inconsistent with their expectations.

For this reason, over the past quarter century economic principles increasingly have been regarded as providing a minimal skeletal structure for determining price, while behavioral dimensions have become recognized as being central to guiding pricing decisions. Enhanced empirical investigation of behavioral dimensions has substantially strengthened our understanding of why, and under what conditions particular pricing strategies are likely to work in the parks and recreation field. However, it should be stressed

that incorporating the behavioral dimension does not replace basic economic principles, rather it builds upon them.

Figure 1. The Conceptual Framework Undergirding Reference Price Related Strategies.



Definition and Explanation of Internal Reference Price

Figure 1 shows that the concept of internal reference price has its primary genesis in three theories: adaptation level theory (Helson, 1964) assimilation-contrast theory (Sherif & Hovland, 1961), and prospect theory (Kahneman & Tversky, 1979). Adaptation level is derived from the field of biology and means adjusting to prevailing conditions. Helson's (1964) theory states that the perceived magnitude and effect of a stimulus depend on its relationship to preceding stimuli. Experience with prior stimuli creates an adaptation level or reference point, and subsequent stimuli are judged in relation to it.

Helson's (1966) original work suggested that this standard was the product of the pooled effect of three classes of stimuli. The co-opting of Helson's theory to explain customer reactions to park and recreation pricing decisions has resulted in modifications to Helson's conceptualization of these stimuli, which have been termed contextual, residual, and normative equity (Crompton (b), in press). The contextual stimuli category recognizes that a given price may be considered unreasonable in one context, but be acceptable in another. That is, it is inappropriate to consider price expectation without considering the context in which this expectation is generated. When confronted with a new price, potential users ask: Is the service good value for money? Value is a function of quality/price. A given price may be considered unreasonable in one context, but be acceptable in another. Thus, in

a given context, focus is not only on price but also on quality of a service. As the perceived quality of a service changes, so will perceptions of price acceptability.

Residual knowledge is defined as perceptions of price derived from the internal processing of an individual's previous information, life experiences derived from prior purchase experiences, and information provided by others (McCarville & Crompton, 1987a). The normative equity stimuli category recognizes that equity is the key element that differentiates marketing in the public and private sectors (Crompton & Lamb, 1986) and the prevailing equity criterion in a community is likely to have a profound influence on people's perceptions of the acceptability of a price. There are five distinctively different conceptualizations of equity: compensatory, egalitarian, market, maximization of community benefits, and libertarian (Crompton & West, 2008). These guide pricing strategy, because if a price decision is not consistent with the conceptualization of equity that prevails in a community, then it is unlikely to be acceptable to them.

Residual knowledge is a composite of the unique life experiences that an individual has accumulated. The prevailing normative equity criterion is defined by a majority of a community's residents and it establishes the community norms for what constitutes an acceptable price. Thus, at the personal and community levels, respectively, these two influencers serve as anchors. Individual attitudes to a price—people's way of structuring judgments as to its acceptability—are determined by how they perceive its context relates to those anchors. The arrows in Figure 1 show that the internal reference price and, thus, the perceived acceptability of a price in any context is likely to be influenced by both of these anchors.

The two anchors of residual knowledge and normative equity are "givens" that park and recreation managers cannot manipulate and must work within. The anchors create the expectations against which the acceptability of a price in a given context is evaluated. To meet the expectations created by these anchor influences, it may be necessary for managers to provide additional information to stakeholders relating to the context of a pricing decision, and to frame the information so it is congruent with their expectations. The goal is to use these strategies to facilitate users' adaptation to a new price by providing new information that will be assimilated.

Assimilation-contrast theory is similar to adaptation level theory in that it posits that an individual compares new stimuli to a background of previous experience (Sherif & Hovland, 1961). However, it added the notion that there was a latitude of acceptance for new stimuli that were tolerable and a latitude of rejection for those considered to be objectionable. Thus, while adaptation level theory introduces the notion of a reference point and offers an explanation on how it is derived, assimilation-contrast theory complements it by introducing the concept of a latitude of acceptance or distribution of acceptable prices around that adaptation level.

Prospect theory emerged in 1979 (Kahneman & Tversky, 1979). It offered further refinement to explaining reference price formation in that it suggested why adaptation resulted in different anchor points being established when the potential outcomes of the adaptation were framed differently. Like the other two theories, it recognized that perceptions and judgments are relative, and evaluations of the acceptability of a price increase are made by comparing it to an internal reference criterion.

The internal reference price (Figure 1) is the primary standard that determines whether a purchase price will be judged acceptable (Monroe, 1973). The internal reference price for each individual will be different because of people's different responses to contextual, residual and normative stimuli. It is probably a "weighted mean" (Helson, 1964; p. 61) comprised of an average of all prices paid in the past, but with the most recent price that was paid for a given service at an agency, or at similar park and recreation agencies, being

given more influence than earlier prices. Thus, McCarville's (1996) study of swimming pool users concluded, "For those who pay fees repeatedly over time, price last paid seems to represent a parsimonious indicator of price expectations" (p. 62). Certainly, prices paid on more recent occasions are likely to have a greater effect on reference price than earlier payments (Mazumdar, Raj, & Sinha, 2005). This has led to the widely accepted position that reference price is best conceptualized as the weighted mean value of past prices that assigns more weight to recently observed prices (Briesch, Krishnamurthi, & Mazumdar, 1997; Della Bitta, & Monroe, 1974; Kalyanaram & Winer, 1995). When a new price is assimilated, it is averaged into the past prices to form a revised internal reference price.

Ostensibly, these definitions of internal reference price suggest that it is actively derived through a conscious cognitive process. However, it has been consistently reported that people have only a vague idea of actual prices. Reviewers of the price recall literature concluded, "A relatively low proportion of buyers can recall accurately prices of products they had recently purchased" (Monroe & Lee, 1999; p. 208). In a park and recreation context, McCarville (1996) reported, "Respondents offered estimates of prices they believed they last paid, but most (67%) were uncertain of the accuracy of their estimates" (p. 59). Similarly, Gratton, and Taylor (1995), investigating reactions to price increases among 2,500 users of five Scottish recreation centers noted "the high proportions of users who were unaware of either the previous prices or the price increases such that they could not offer a judgment on the price increases" (p 257). The "high proportions" at the centers ranged from 32% to 58%. Awareness of price tends to be inversely related to income levels, although even those with very low incomes tend not to be especially aware (Morris & Morris, 1990).

This uncertainty suggests that a reference price is a rough estimate, consisting of a range or distribution of reference prices rather than a single point. Users may have a general idea of whether a price is acceptable, but their internal reference standard often is likely to be approximate. Empirical support for an internal reference price being a range was offered by Howard and Selin (1987): "Recreation consumers are willing to pay within ranges of acceptable prices" (p. 54).

In the parks and recreation field, the range of a distribution of reference prices may be widest for services that are purchased infrequently, since in these cases the last price paid is more likely to become vague with the passage of time. However, for some services, the internal reference price range will be narrow and well defined for two reasons. First, the agency may be the only supplier of a service in a community, so its users are exposed to few, if any, alternate reference points. Second, prices often remain stable over relatively long periods of time. It has been noted:

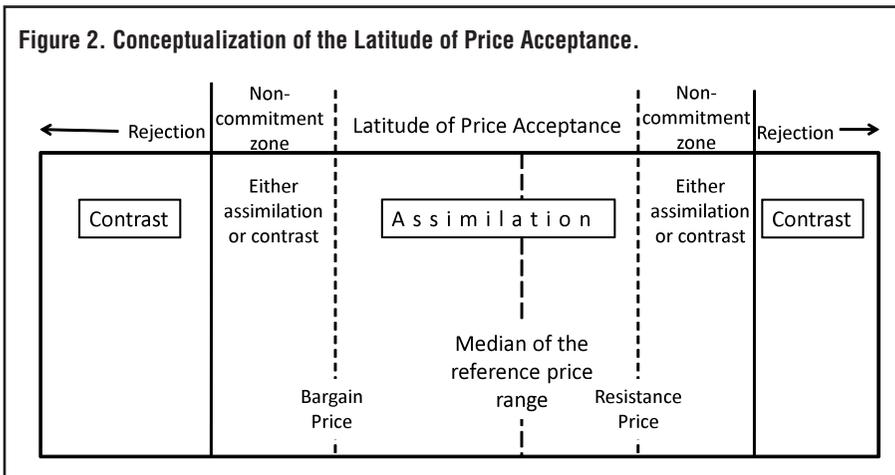
Many individuals participate in recreation on a regular basis. Daily swims at the community pool, weekly exercise classes, or monthly concerts are all examples of public recreation programs that may engender definitive reference prices in the minds of consumers. As a result of the regular use of public recreation programs, consumers may be able to form definite price structures for such programs (McCarville & Crompton, 1987a; p. 284).

Eleven Internal Reference Price Related Strategies

Eleven internal reference price related strategies are identified and discussed (Figure 1). All of them embrace principles derived from adaptation level, assimilation-contrast, and/or prospect theories; they all relate to situations involving establishing a price for the first time, increasing a price, or discounting a price; and they are all framed to seek consonance with internal reference price.

Latitude of Price Acceptance

Latitude of price acceptance is the range of prices around an internal reference price within which users have reduced price sensitivity (Kalyanaram & Little, 1994). It is explained by both adaptation level theory (Helson, 1964) and assimilation-contrast theory (Sherif & Hovland, 1961). The adaptation level can be viewed as a continuum of acceptance and rejection, with a central latitude of price acceptance, and a neutral zone where uncertainty prevails. Assimilation-contrast theory suggests that new stimuli are judged in relation to an existing acceptable range of reference prices. Those within the range are assimilated and accepted, while those outside it are contrasted and rejected (Figure 2).



The low and high parameters of the latitude of price acceptance are shown as the bargain and resistance points, respectively, in Figure 2. Conceptually, they can be derived by asking two questions: (a) what is the lowest price the target market will pay while still trusting the service's quality?, and (b) what is the highest price the target market will pay (Gabor & Granger, 1965)? In the parks and recreation field, concerns about the low price/low quality relationship are confined primarily to when services are introduced for the first time, and these concerns are discussed later in this paper. The predominant concern is what is likely to happen in the much more sensitive situation when a price is increased.

The latitude of price acceptance zone in Figure 2 is shown as being asymmetrical. That is, the zone is narrower above the median reference price and wider below it. This asymmetric response to price changes is explained by prospect theory, which directs that users are more sensitive to prices above a reference point (perceived loss) than to prices below it (perceived gain) (Kahneman & Tversky, 1979). They tend to perceive a reduction in price below an internal reference price to be smaller than it actually is, but when a price revision is higher than the internal reference price, the price difference is perceived by users to be larger than it actually is (Krishnamurthi et al., 1992).

Figure 2 shows "non-commitment" zones adjacent to the bargain and resistance points. These zones recognize that the boundaries of the latitude of price acceptance are not fixed, but can be extended if contextual cues (e.g. cost, improved service quality, or use of revenues information) suggest there are good reasons for moving them. Thus, prices

falling in the non-commitment zone may be assimilated and accepted, or contrasted and rejected depending on the strength of the accompanying contextual cues. If a new price in the non-commitment zone is assimilated, then this adaptation will result in an incremental shift in the internal reference price. Thus, the latitude of acceptance, like reference price, is a dynamic, adaptive concept that changes over time.

The latitude of price acceptance is likely to be wider for higher priced services. For example, an increase in a class fee from \$10 to \$15 may be rejected as being outside the latitude of acceptance zone, while raising another class fee from \$70 to \$78 which is a larger absolute dollar amount, may be perceived as being within the latitude of price acceptance. This is consistent with Weber's "law" which, when adapted to the context of price, states that users perceive price differences in proportional and relative terms, not absolute terms (Kaman & Toman, 1970; Monroe & Lee, 1999; Nagle & Holden, 1995). Thus, it is the percentage change in price, not the absolute amount of a price increase that is likely to be critical.

The width of the latitude zone around a reference price is likely to vary widely among different target markets and different types of services. It was noted earlier in the discussion of reference price definitions that availability of competitive suppliers and frequency of purchase were likely to be major influences on both internal reference price and the latitude of price acceptance. The notion that its width is influenced by frequency of use is consistent with Sherif & Hovland's (1961) original observations on latitude of acceptance derived from their empirical studies on social issues. They commented on: "The constricted latitude of acceptance of individuals who are strongly involved in their stands on an issue and the more extensive latitude of acceptance of individuals less deeply concerned with the issue" (p. vii). It is likely to increase with the income level of the target market. More discretionary income is likely to be associated with greater tolerance of price increases.

Those who are loyal to a program, instructor, facility, or agency are likely to have wider latitude of price acceptance. They tend to stay focused on the benefits of the experience offered and less focused on the price. Deviations from the anchor reference price must be large before they notice. Those who are marginal or fringe users, rather than core users, are likely to be more focused on price increases and to have a smaller latitude zone (Kalyanaram & Little, 1994). If these marginal users participate fairly regularly, then their latitude of price acceptance is likely to be especially small because their frequency of participation will establish the existing price as a firm reference price from which they will notice small deviations.

The nature of the existing price number is also likely to influence the latitude of price acceptance. If it is a "rounded" number, such as \$5, \$10 or \$20, then it is likely to be more accurately recalled and have a relatively narrow latitude of price acceptance. In contrast, if the price is \$6.25, \$9.30 or \$17.45, then recall is likely to be more vague so the latitude of price acceptance is likely to be wider (Schindler & Kirby, 1997).

Different target markets, types of service, frequency of purchase, degrees of loyalty, and nature of the existing price number, all contribute to the latitude of price acceptance varying among individuals. Research in the marketing field suggests that to trigger a purchase reaction a discount should be between 15% and 30% below the regular price (Della Bitta & Monroe, 1980; Gupta & Cooper, 1992; Marshall & Long, 2002). If the discount is greater than 30%, then it exceeds the acceptable bargain price (Figure 2) and prospective users are likely to perceive that the offer is not bona fide (Della Bitta, Monroe

& McGinnis, 1981; Mazumdar & Jun, 1992). Given the asymmetrical reaction to price change shown in Figure 2, it seems likely that price increases small enough to be perceived as being consistent with reference price should not exceed 10% in the private sector.

However, evidence in the parks and recreation field suggests the resistance point that denotes the high end of the latitude of acceptance in some situations may be a higher percentage than studies in the private sector have reported. The tradition of subsidizing prices so they are low is likely to create substantial consumer surplus that facilitates acceptance of relatively large proportional increases in price. This was demonstrated by an Oregon parks and recreation agency. The agency's cost of providing each program was estimated and three alternate pricing options were developed. The low price option recovered 50% of costs; the medium price was break-even point, recovering all costs; the high price was the highest price used by a competitor supplier (public or private) in the market area. A sample of participants in each of 15 program areas was surveyed. Each respondent received a low, medium or high price scenario. The authors concluded:

Clear price threshold levels do exist for recreation activities, and they vary substantially from one activity to another ... Decisions related to price adjustments should be made on an activity-specific basis. "Across-the-board" price hikes in which all or a number of programs are raised by the same standard amount, do not allow for the kind of price discrimination evident among public recreation consumers. A 10% increase, which might be met with considerable resistance in one area, may be well below the acceptable price level in another. In either case, the decision could lead to negative consequences for the agency (Howard & Selin, 1987; p. 58).

Table 1. Acceptance of Price by Program Participants at Three Levels.

Activity	Existing Price	Low (50% of cost)		Medium (Break even)		High (Going rate)	
		Yes %	\$	Yes %	\$	Yes %	\$
Swim Lessons	\$8.00	100	10	92	12	76	15
Youth Swim	\$0.50	94	.50	84	.75	77	1
Aerobic fitness	\$12.00	78	14	59	23	38	32
Weight Conditioning	\$16.00	55	16	52	22	33	30
Youth baseball	\$10.00	69	20	72	28	44	35
Tennis lessons	\$8.00	76	13	86	15	62	20
Preschool classes	\$34.00/mo.	74	36	34	50	9	100
Photography classes	\$13.00	52	25	53	32	54	40
Adult specialty crafts	\$15.00	50	33	36	43	42	50
Youth dance classes	\$12.00	68	14	67	20	64	25
Cross country ski	\$15.00	44	24	53	34	30	45
Resident camping	\$70.00	47	97	53	121	28	125
Whitewater raft trips	\$18.00	60	23	22	32	25	35

Among the 15 recreation programs whose users were surveyed, a remarkably high tolerance for price increases emerged (Table 1). For example, among those paying for swim lessons, 100% and 76% reported a willingness to accept a 25% and 90% increase in price, respectively. The two user groups that were most resistant to substantial increases were those who purchased cross-country ski passes and resident camping passes, suggesting the existing price for those activities was closer to the resistance price. However, even among those groups 44% and 47% expressed a willingness to accept price increases of 60% and 38%, respectively. Clearly, price increases of this magnitude could not be sustained indefinitely in future years, but these data suggest the tolerance for price increases is likely to be higher than that reported in private sector studies if the programs are subsidized below market rates. These data also illustrate why implementing “across the board” price increases of (say) 5% is a poor strategy.

The latitude of price acceptance suggests that whenever possible price increases should be “nibbles” rather than “bites.” Raising prices within the latitude of acceptance zone is one of the most risk free ways for a parks and recreation agency to increase revenues. A series of small incremental increases in price over a period of time—all of which fall within the latitude of price acceptance—is less likely to meet user resistance than a single major increase.

Figure 3. Implementing Price Increases Compatible with the Latitude of Price Acceptance.



Typically, park and recreation agencies do not raise their prices to keep pace with increases in costs. To rectify this situation, prices should be raised every year as part of the annual budget review process to offset the inevitable increase in costs. If an agency, or its elected officials, decide to “hold the line” on price and reject an annual increase, they have probably created a future problem. As shown in Figure 3, if no increases are authorized until year Y, then a large price increase that is outside the latitude of price acceptance will likely be necessary, and it will probably meet user resistance.

Following the Principle of Dual Entitlement (Kahneman, Knetsch, & Thaler, 1986), consideration should be given to raising prices proportionately whenever a user group is aware of events leading to substantial increases in an agency’s costs of delivering a service. This information is likely to raise their internal reference price and the upper boundary of the latitude of acceptable price, so a revised price reflecting those costs is likely to be accepted. For example, immediately after a large increase in gasoline or electricity prices, or after a well-publicized labor contract has been signed, the additional costs can probably be passed on to users without resistance.

The strategy of frequent small incremental increases may be difficult to enforce in jurisdictions in which an agency has to seek authority from its elected representatives to implement each price increase. To avoid this situation and to facilitate frequent small price increases, some governing bodies have authorized agencies to implement price increases without seeking their prior approval. In such cases, an agency is required only to provide details of the new prices, with full supporting documentation, to its controlling body for their information. This enables elected representatives to avoid controversy by deflecting any criticism of new prices away from themselves to the agency head. It does not remove pricing decisions from the political arena, because elected representatives retain the authority to intercede. This low-key approach, however, usually leads to intercession only in exceptional cases. It avoids extensive public debate of all proposed price increases and thus facilitates frequent small increases within the latitude of price acceptance.

Relationship Pricing

Park and recreation agencies offer an array of services, and the internal reference price for one of them is likely to be influenced by the reference prices for other services that are perceived to be similar. The similarity set may be comprised of other programs within the same division of an agency (e.g., athletics, aquatics, recreation classes, parks, arts, recreation facilities, and special events). The notion of latitude of price acceptance may extend beyond an individual program to the range of services within a division. The collective reference price may be the median price in the range of reference prices for all programs in the division. Any new programs need to be priced within the latitude of price acceptance around that collective reference price for the prices to be accepted without resistance (Petroshius & Monroe, 1987).

The inter-relationship of reference prices within a similarity set (assumed to be a division) has three primary implications for park and recreation agencies. First, there should be consistency of price among programs within a division. For example, when the price of an aquatic program is either established for the first time or revised, users’ internal reference prices for it will be influenced by their perceptions of its relationship to other aquatic programs and their reference prices for those programs. Consider the following examples:

- A tanning solarium was located at a public swimming pool. The price for using the solarium was set at \$10 per 30-minute session, which was the going rate for solarium use at commercial installations in the city. The intent was to use the solarium to generate

funds that could be used to offset the substantial losses incurred by operating the pool, without undercutting the private sector. The installation and the services associated with the solarium were high quality, but the venture was a failure. It appears that the public could not reconcile paying \$10 for a session in the solarium when admission to the swimming pool was only \$2.50. The solarium's price was incompatible with the public's reference price for services offered at a public pool.

- A park and recreation agency charged \$60 for a series of four art classes at its museum. It charged \$20 for the same set of classes (same instructor, resources, etc.) at one of its recreation centers. Enrollments were higher at the museum than at the recreation center. Users' reference prices for the similarity set were not based on the type of class. Rather, they were derived from other offerings at the respective facilities which tended to attract clientele with different levels of income. Inherent within this difference there may also become perceptions of a price-quality relationship (This is discussed later in this paper).

The second implication of relationship pricing is that special attention should be given to revision of the lowest and highest prices within a division. This is consistent with range theory (Volkman, 1951), which argues, "It is primarily the end-stimuli that control the oscillations of the absolute scale. The center of the stimulus-range has no special functional significance whatsoever. It is merely a convenient numerical value: the mean of the two end-stimuli" (p. 283). It is also consistent with Sherif and Hovland's (1961) conclusion that "it is the end values of the series that ordinarily acquire an anchoring function" (p. 33). Typically, it has been found that there is poorer retention of interior numbers in a sequence relative to the end numbers. Numbers at the beginning and end of a list are recalled more frequently than those in the middle of the list (Hinrichs & Novick 1982). It has been suggested that these reactions are related to a principle of Gestalt psychology called "outstandingness" (Monroe, 2003). This states that some phenomena have special qualities that make perception of them easier and more lasting. The visibility of the end prices suggest they will have the most well-established internal reference prices and the smallest latitudes of price acceptance, so revising them is likely to meet the most resistance.

Given that the highest and lowest prices are likely to have more "outstandingness" than others in a division, users are likely to use them as an internal reference price against which to judge the acceptability of prices for other programs, whose prices are between those anchors. Of the two ends, it has long been recognized that the lowest price is likely to have more influence on the reference price of other programs (Monroe, 1971). The challenge is compounded in the parks and recreation field, because the lowest price often is zero. When a service has been provided free of charge, over time some may perceive it as a "right," and there is likely to be consternation when this is changed, irrespective of how nominal the initial charge may be.

The prominence of the highest price in a division means that program is likely to be perceived as a signal of the quality and value for money of a park and recreation agency's services. An example of the managerial implications of outstandingness in the private sector was provided by Huber, Payne & Puto (1982):

A store owner has two camel hair jackets priced at \$100 and \$150 and finds that the more expensive jacket is not selling. A new camel hair jacket is added and displayed for \$250; the new jacket does not sell, but sales of the \$150 jacket increase (p. 95)

Introducing a more expensive option enhanced the value of the \$150 jacket to customers.

Two interpretations are offered to explain this phenomenon (Simonson & Tversky 1992). Both recognize that the addition of a new high-end offering changes the context within which a service is viewed and raises internal reference price. First, it is argued there is an “aversion to extremeness,” so the addition of an extreme option results in a middle option moving away from the other extreme. An alternative explanation is termed “the asymmetric dominance effect,” which occurs wherever an inferior option increases the sales of a superior option.

A final strategic implication of relationship pricing was suggested by Morris and Morris (1990). They argued on the basis of adaptation level theory that service users are likely to form higher internal reference prices when the prices in a service line (e.g., aquatics or recreation activities) are presented to them in descending order (from high to low), than when they see them in ascending order (from low to high):

- Assume a user has a reference price of \$40 for a 10-session aerobics class. If 10 session classes for bootcamp, jazzercise, yoga and spinning are priced at \$100, \$80, \$65, and \$50, respectively and presented in that order, then adaptation-level theory suggests the aerobics reference price will be raised by a greater amount than if the prices were presented in the reverse order.

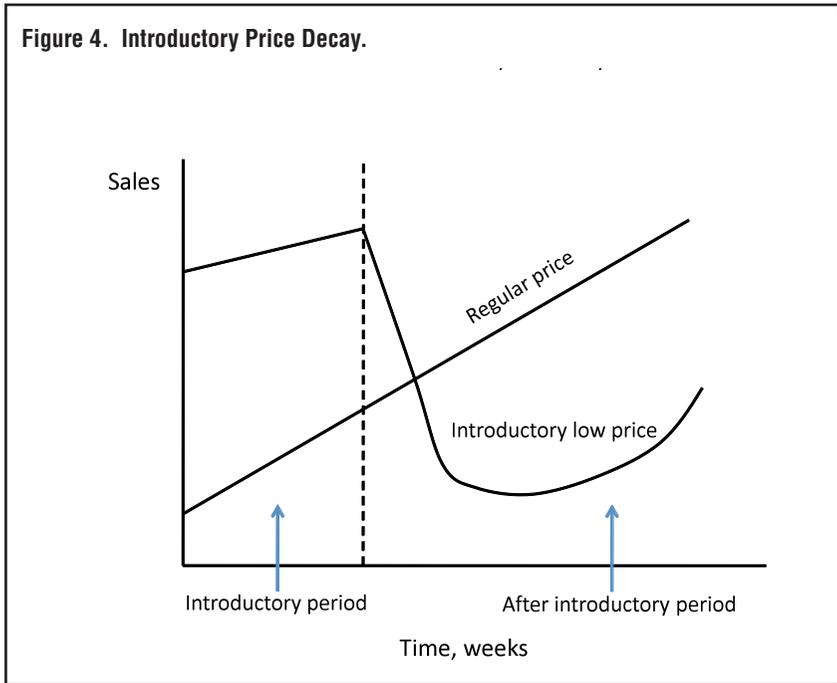
Introductory Pricing

Sometimes a low price may be offered for a short period of time when a new program is introduced to induce people to try it. After the introductory period when people have experienced it, the low price is raised to a level commensurate with the program’s quality and the target market’s ability to pay. Essentially, the park and recreation agency is saying, “We are foregoing revenue now, but because we believe this is a good program that will appeal to many who are currently uncertain about its merit; we will recoup this money in the future from repeat visits.” If a threshold number of those marginal users are not converted to repeat visitors and/or do not influence others to participate, then the agency will not recoup the initial lost revenues.

In a classic study in the marketing field, five new brands were introduced at a low introductory price in one set of stores, and at their regular price in a matched set of stores (Doob, Carlsmith, & Freedman, 1969). The discounts used for the low introductory price ranged from 8% to 56%. After a short period of time varying from one to three weeks, the low introductory price was raised to the regular price. Although the discounts varied widely, the general sales patterns of the matched stores were similar for all five brands

Figure 4 shows the low introductory price strategy was successful in its goal of attracting large initial sales. However, over the 20-week time period of the study, the total volume of sales was greater in the regular price stores, even though the sales for the first one to three weeks in those stores were much lower. The impact on revenues was even more evident since the regular price stores did not lose revenues from initial discounting. The authors concluded, “These studies indicate that introducing products at a lower than usual price is harmful to final sales” (p. 349). This study has clear implications for park and recreation agencies. It points out that the most important pricing decision is the initial price that is charged, because this first price firmly establishes the internal reference price for the service in a user’s mind. Hence, it becomes the criterion against which the acceptability of subsequent price revisions is compared.

The danger of starting with a low introductory price is that an unintended internal reference price is created. When introductory price purchasers are confronted with a big increase in the regular price, the service at that point is likely to be regarded as overpriced and the price viewed as unacceptable. It is outside users’ latitude of acceptable price, so it is



rejected. For purchasers at the regular price, it becomes the reference price and sales of the service increase as awareness of it spreads. For example, if a city opens a new ice skating rink, the purpose of offering a low introductory price of (say) \$5 rather than the regular price of \$10, is to encourage those who have only a marginal interest and who would not go at the \$10 price to try it. The anticipation is that some of these hesitant marginal users will be converted into regular users. However, the danger of this strategy is that the first price is likely to form the reference price. To avoid this danger, the introductory low price should be clearly positioned as a promotional price: "The price to ice skate is \$10. However, in order to give people an opportunity to try it at our new facility, for the first two weeks only we will have a special promotional price of \$5." All potential users now understand that the promotional price is for only two weeks and the regular price of \$10 is established as the reference price. This was not done in the marketing study reported in Figure 4.

An agency is likely to have more flexibility in the first pricing decision than in any subsequent decisions, which will always be constrained by client groups relating the appropriateness and acceptability of price increases back to the former price. The first pricing decision usually has a strong determining impact on the level of price that can be charged for that service throughout its life. Further, relationship pricing suggests that it may impact subsequent initial pricing decisions of other services.

The constraining influence of existing prices on subsequent price revisions is illustrated by the data presented in Tables 2 and 3. These data were collected from a representative probability sample of respondents in a Texas city as part of a household personal interview survey. Respondents consisted of both users and nonusers of city recreational offerings. They were asked to check which of six alternate prices they considered to be the most appropriate for each of the 11 types of recreational services listed in Table 2. The alternate prices differed for each service.

Table 2. Perceptions of Appropriate Prices for Existing City Recreation Services.

Service Area	Current Average Price (\$)	Most Appropriate Price (\$)	Price (%)	Per Visit Cost of Provision (\$)
Parks, playgrounds, greenbelts	No Charge	0	83	4.00
Tennis	5.00	5.00	66	9.00
Swimming	2.00	2.00	72	9.00
Golf	11.00	11.00	53	19.00
Recreation centers	3.00	3.00	68	10.00
Organized athletics	3.80	3.80	62	6.00
Outdoor nature programs	2.00	2.00	67	9.00
Senior Citizen programs	1.00	1.00	68	6.00
Arts facilities or programs	2.00	2.00	62	6.00
Community education programs	2.00	2.00	62	12.00
Programs for people with disabilities	No Charge	0	90	11.00

In each case, respondents were provided with two pieces of information. First, they were informed of the current average price charged for the service (Table 2, column 2). Second, they were informed of the per-visit cost to the agency of servicing each user (column 5). In every case, the activities were supported by a tax subsidy. Given that most respondents were nonusers of a particular service, the expectation of the researchers was that the most appropriate price would be set close to the per visit cost level (column 5) or at least at a point higher than the current average price (column 2). However, this did not occur. A substantial majority of the sample in all 11 service areas (column 4) indicated the most appropriate price (column 3) was the price currently being charged (column 2). This illustrates the strength of an existing price in formulating a reference price.

The same sample was also asked to identify the appropriate price from six alternates, for two services not yet offered but likely to be made available in the future. In these two instances, the sample was only given the estimated per-visit cost to the agency of servicing each user since there was no existing price. Table 3 shows that without an existing price to serve as a guide, no consensus was reached among respondents as to what was the most appropriate price. Without an existing price to serve as a cue, there was no firm reference price in people's minds. The data in Table 3 show a tendency to select the middle of the scale, which is a common strategy when dealing with unfamiliar phenomena. It may be interpreted as representing the most comfortable "compromise" price, rather than opting for the more "radical" alternatives represented by the scales' anchor points. Clearly, an agency has much more flexibility when pricing a service for the first time. In this case, the parks and recreation agency probably could select any of the six price point options without arousing substantive opposition.

Price-Quality Relationship

It has been noted that, "Setting the right price in services is more than a matter of generating dollars today. It is also a matter of sending the right message about the service. Prices are evidence" (Berry & Parasuraman, 1991; p. 104). The suggestion that price could be used by purchasers in some contexts to evaluate quality appears to have been first

Table 3. Perceptions of Appropriate Prices for Two Proposed New Services.

Activity A		Activity B	
Price (\$)	%	Price (\$)	%
No charge	16	No charge	5
.75	20	1.00	19
1.25	28	2.00	33
1.75	14	3.00	25
2.25	7	4.00	4
3.00	15	5.00	14

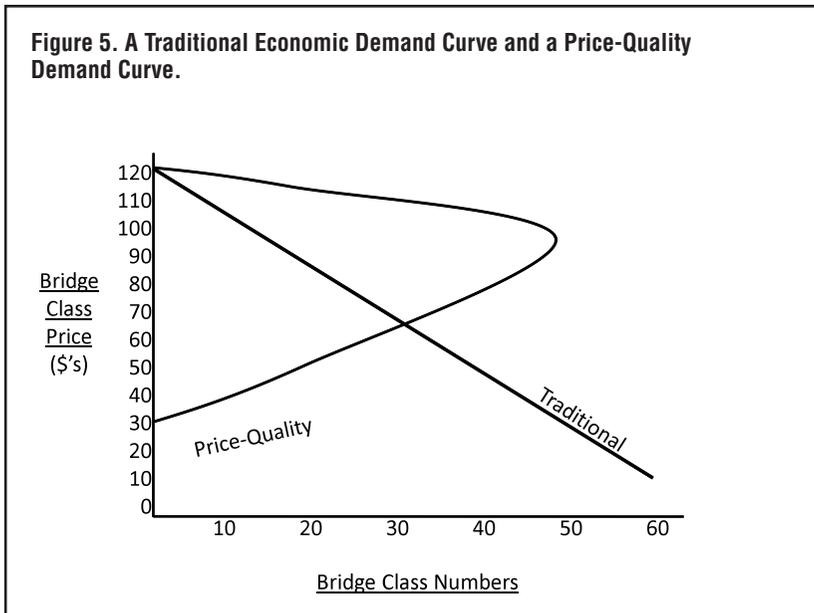
mooted by Scitovszky in 1945. He noted that as the array of goods available for purchase proliferated, it was no longer possible for purchasers to use their experience to evaluate quality:

Few of us can appraise the qualities of an electric iron or of toothpaste, and the frequent introduction of new models and improvements prevents us from relying on experience. ... More and more, therefore, the consumer of to-day has to judge quality by indices of quality ... “mass observation” of one’s friends and their wives shows that more often than not people judge quality by price (p. 100).

He stated this behavior “is perfectly rational” (p. 105) but recognized the inherent conundrum of this phenomenon as a “double-edged weapon” in that: “A commodity offered at a lower price than competing commodities will be both more attractive to the consumer on account of its greater cheapness and less attractive on account of its suspected inferior quality” (p. 101).

Scitovszky (1945) suggested “it is perfectly rational” to make this association about services whose quality is unknown before they are tried, because in most contexts, a high price reflects either a high demand for superior quality, or high production costs associated with high quality. This is consistent with adaptation level theory since users are accustomed to increments in quality being accompanied by concomitant increases in price. The “double-edged weapon” is the conflict of this relationship with the classic economic downward sloping demand curve. This means that while a high price may connote high quality and induce purchase by some, it may simply price a service beyond the reach of others.

Figure 5 contrasts the classic backward sloping economic demand curve with the price-quality relationship curve. The principles are illustrated by using as a hypothetical example the number of registrations for a six-session bridge class targeted at a middle class clientele. The traditional curve shows that at a price of \$120 (\$20 per class) for the six classes there are no registrations because the price is perceived to be too high. As the price falls, the number of registrations increases, so when it drops all the way to \$12 (\$2 per class) there are 60 people who register.



The price-quality curve is parabolic, reflecting that the relationship operates within lower and upper boundaries (Gabor & Granger, 1964; 1966). This also recognizes there is a latitude of acceptable prices within which it operates. Figure 5 shows that there are no registrations for the class when it is priced at \$30 (\$5 per class) or lower because prospects are suspicious that it will be low quality and perhaps that “my kind of people will not be there”! As the price is raised, the number of registrations increases, so when it reaches \$90 (\$15 per class) then 50 registrations occur. Beyond that point, the number of registrations declines, because the price is perceived to be too high by increasing numbers of prospects. The figure shows that at a price of \$50, 20 people register, indicating 30 prospects did not sign up because the price was too low. At a \$110 price, there will also be 20 registrations, indicating there are 30 prospects who do not sign up because the price is too high.

The signaling power of price is suggested by the meanings associated with the words “cheap” and “expensive.” Again, Scitovszky (1945) noted:

The word “cheap” usually means inferior quality nowadays; and in the United States “expensive” is in the process of losing its original meaning and becoming a synonym for superior quality. Worse still, one of the largest American breweries uses the advertising slogan: “Michelob, America’s highest priced brew!” (p. 100).

The rejection of lower priced services is a form of risk avoidance, the risk being that inexpensive services may be less likely to give appropriate satisfaction. Given the investment in the opportunity cost of their time, the personal energy involved, and the travel costs incurred, many potential users may feel it unreasonable to risk using a low-priced service for the relatively small monetary savings that may accrue. Long ago, the nineteenth century British social critic John Ruskin is alleged to have formulated the Common Law of Business Balance:

It's unwise to pay too much, but it's worse to pay too little. When you pay too much, you lost a little money—that is all. When you pay too little, you sometimes lose everything, because the thing you bought was incapable of doing the thing it was bought to do (cited in Honomichi, 1991; p. 17).

Thus, if a parks and recreation agency charges a low price that does not accurately reflect the quality of a program, then it is devaluing the program to potential users. Consider the following examples of the price-quality relationship:

- A summer youth day camp program was offered and priced at \$10 for the week. Too few signed up for the program to be implemented. The following year, the same agency offered the same program at \$50 per week and it was fully subscribed. This suggests that the potential client group took price to be an indicator of the quality of the day camp program.
- A regional parks agency constructed two campsites on opposite sides of the same river. They were of similar design and quality. The agency priced them at \$10 and \$15, anticipating that the \$10 site would attract larger numbers and be relatively crowded, while the \$15 site would offer a more exclusive experience. The reverse outcome occurred. The less crowded, more exclusive site was invariably the \$10 site. The \$15 price signaled that site offered a superior experience resulting in it being most crowded.
- If daily swim lessons for children in the summer months were offered in a community by four different entities whose prices for a week's lessons were: private club, \$50; YMCA, \$40; university, \$35; and park and recreation agency, \$30; many citizens would elect the private club assuming that its lessons were the best because its price was highest.

These examples suggest that if the targeted clientele for a program is middle class, then a low price may be interpreted as signaling a low quality program not intended for them and dissuade some from participating. Thus, greater participation may be forthcoming if prices are raised. Target markets will interpret what constitutes a high or low price differently. For some, \$5 for a program may be a high price and connote high quality, while for others, a \$5 price may be perceived as a low price and communicate low quality.

Numerous research studies investigating the relationship have been reported in the marketing field. Reviews of these have confirmed that there is general acceptance of the price-quality relationship, which is undergirded by the aphorism, "You get what you pay for" (Rao & Monroe 1989). However, its effectiveness is qualified by the amount of an individual's experience with a service, the nature of a particular program, and the context in which it is delivered (Cronley, Posavac, & Meyer, 2005).

Not surprisingly, as experience with a service increases, the effectiveness of price as a cue for quality declines. It is likely to be especially prominent when the characteristics of a service are unobservable (Gardner, 1970). For example, a U.S. Navy recreation area charged officers a higher price than other ranks for the use of its rental cottages and golf course. The characteristics of the rental cottages were identical but they were unobservable. Complaints about the rental cottages came from the other ranks who assumed their lower price meant they were being allocated inferior cabins or receiving lower levels of service. There were no complaints about the different golf fees, because they could visibly observe they were receiving the same experience.

If no other extrinsic cues are available, then price is a relatively powerful communicator of quality. The presence of additional cues in a given context reduces the signaling influence of price. These cues may include: an agency's image and its reputation; experience with similar programs offered by other park and recreation agencies; a program's name; the instructor's reputation; and knowledge of the cost required to deliver the program. The signaling impact of price will only be interpreted with confidence if it is consonant with these other cues. Evidence suggests that the agency's reputation is likely to be the strongest of these perception cues and that multiple cues have more effect than individual cues (Dewar & Parker, 1994).

The price-quality relationship is especially salient in the parks and recreation field because of its tradition of subsidizing programs, which is driven by a concern for serving the economically disadvantaged. The resulting low prices, for the most part, do not reflect low quality. Nevertheless, they inadvertently communicate that message to uninformed citizenry who have few other clues available to them for evaluating the agency's quality. This contributes to reinforcing any negativism there might be in the community towards the field. It suggests that whenever the economically disadvantaged are not the target audience, it would be helpful to an agency's overall image as a high-quality service provider if it charged higher prices that signaled that message.

If the perception of quality is enhanced, then prices can be raised concomitantly to reflect this. In the parks and recreation field, there are opportunities to raise perceptions of quality by regulating the supply of a program so user demand for it is greater than the available supply. This scarcity leads to an aura of exclusivity, which raises perceptions of quality and enables a relatively high price to be charged. The generalizable message for park and recreation managers is that scarcity often enhances perceptions of quality. Consider the following:

- A campsite that is fully booked.
- A festival site that has reached capacity.
- A softball league that cannot accommodate more teams.
- A national park that closes its gates on peak days because it is deemed to be full.
- A multiyear wait for permits to raft on the Colorado River through the Grand Canyon.
- A recreation class that has reached capacity.

In these types of situations, price can be increased because scarcity is created, and with it, the perception of high quality. Price can be part of the rationing mechanism to determine who should receive the service. The presumption is that those who most desire it will be prepared to pay more for it. If the supply is increased so scarcity is removed, then there is likely to be more resistance to higher prices.

Service Enhancement Pricing

McCarville and Crompton (1987a) developed as one of their propositions: "Consumers are more likely to support user fees when such fees are used to maintain and improve the resource at which they are collected" (p. 288). Their proposition was derived from Driver's (1984) speculation that users would be more likely to support fees if the revenues went to developing and maintaining the areas at which they were collected, and from responses Miles and Fedler (1986) obtained when they asked a sample of 188 hikers: "Assuming you were asked to pay a daily hiking fee, how much would you be willing to pay if the money was credited to: (a) the general treasury; (b) the agency that collected the fee; and (c) the local park or forest unit where the fee was collected?" They reported that the

average willingness to pay amounts for the three scenarios were \$0.71, \$2.27 and \$2.84, respectively. When the user fees were reinvested to improving the facility where they were collected, there was substantially more support for them.

McCarville et al. (1996) collected data from 1,405 visitors to U.S. Army Corps of Engineers' day-use recreation areas. They asked: "If fees were charged at day-use areas, the money collected should be ..." A variety of options were provided. The authors reported 62% preferred the funds be returned to the site at which they were collected; 13% to any Corps day-use area; 11% to any Corps recreational area (scenic overlooks, campgrounds, etc.); 2% to non-recreational Corps initiatives; and 1% favored such funds being returned to the U.S. Treasury. Respondents also had the opportunity to offer open-ended responses: "Consistent with the more quantitative responses, many stated explicitly that they would be willing to pay higher fees if such a payment resulted in site improvements" (p. 72). The authors concluded: "They were more likely to support fees from which personal benefits might occur" (p. 74).

Ostergren, Solop, and Hagen (2005) similarly solicited preferences, rather than willingness to pay values, from their phone sample of 3,515 U.S. residents when they posed a similar question to that posed by Miles and Fedler (1986). Survey respondents were asked their opinions about how the National Park Service (NPS) should manage entrance fees. Three possible approaches for managing entrance fee monies were offered: 1) all entrance fee money could stay within the unit where it is collected; 2) all entrance fee money could be sent to the NPS headquarters with a percentage going back to the unit where it was collected and the remainder distributed to other units; or, 3) all entrance fee money could be sent to the U.S. Treasury with a relatively small percentage sent back to the NPS to cover costs of collecting the money. Respondent's preferences for the three options were 45%, 47% and 6%, respectively.

Both adaptation level and prospect theories contribute to explaining these results. In adaptation level theory terms, the context in which reference price is evaluated shifts. From the perspective of prospect theory, the general treasury payment option represents a total loss to the user, while the net loss is reduced in the agency and local facility options by some perceived offsetting benefits.

In a related study, Winter et al., (1999) reported that a key element in securing user support for pricing on federal lands that was authorized by the federal Fee Demonstration Program in 1996 was "whether or not people believed the majority of funds would be returned to the local areas where they were collected, and used in a way they deemed important" (p. 223). (This program was institutionalized in the Federal Lands Recreation Enhancement Act in 2004). In contrast to previous legislation, this program required at least 80% of revenues remain with their respective projects and provide additional revenues for maintenance. Similar support for keeping fee revenues in the area in which they were collected was reported by Leuschner, Cook, Roggenbuck, and Oderwald, (1987).

The following anecdotes illustrate the support for large price increases that often is forthcoming when they are perceived to be an investment that yields direct benefits to users by facilitating improved resources:

- Existing prices were \$109 for the slow pitch fields and \$229 for the Little League fields. The city announced increases to \$2,178 and \$2,853, respectively. The leader of the slow pitch association said: "I have no problem paying the extra money, as long as it goes into servicing those diamonds ... I don't mind paying top price as long as we get the service for it." The leagues had complained that the city had poor field maintenance compared with other municipalities in the area, and the city's parks and

recreation director admitted they were not maintained as frequently as those in other municipalities (*Kitchener-Waterloo Record*, 1993).

- After it lost general fund support for lifeguards and maintenance of its beaches, the city metered all car parking in the area that previously had been free. They publicized extensively that all the revenue would be used to staff and maintain the beach. There was no opposition to the new fees.

The principle undergirding users' service enhancement pricing extends to enterprise funds, which are government accounting funds that receive all expense and revenue transactions associated with a service. These funds ensure that all revenues collected from users benefit the service from which they are derived.

Temporal Reframing

Temporal reframing involves lengthening the time frame, and thus the context in which a given price is viewed, making it more likely to be acceptable to a target market. There are two variations of this strategy that may be pertinent to park and recreation agencies: (a) the "pennies-a-day" approach, and (b) the use of credit cards.

Which price is more desirable, \$360 for an annual pass or "only \$1 a day?" The price is approximately the same, but the latter presentation of it points out the implication of spreading the cost over the whole year, rather than viewing it as an aggregate lump sum. Effectively, this pennies-a-day approach to reframing the price changes the reference price by changing the category of purchases with which it is being compared.

The \$360 annual pass price is likely to lead to comparisons with other major purchases costing a similar amount and, as such, may not result in assimilation and acceptance. Framing the price as "pennies-a-day" shifts the reference category from infrequent purchases of products/services costing the large aggregate amount such as an airline trip or major appliance, to relatively nominal daily expenditures such as the purchase of a coffee, a soda, or a newspaper. These are likely to be perceived as relatively trivial, affordable and more palatable, so the likelihood of the price being accepted is increased (Gourville & Soman, 1998). Other examples of this type of temporal reframing are given in Tables 4 and 5.

Table 4. Change Value Perceptions.

Total annual budget for parks and recreation	\$20.989 million
Capital budget	<u>5.872</u>
Operating budget	15.117
Self-generated revenue	<u>5.142</u>
Annual net operating budget	\$9.975 million
Number of residents in the community	281,382
Net per resident investment	\$35.45
OR 68 cents per week	

Table 5. Psychologically Repositioning a Bond Proposal for a \$2 million New Natatorium.

The median home value in the community is	\$150,000	
Construction cost of the natatorium	\$2 million	
Annual property tax payment by an average home owner:		\$12
Annual operation and maintenance cost	\$100,000	
Annual property tax payment by an average home owner		\$6
Total annual property tax payment by an average homeowner which is \$1.50 per month		\$18

In most years, there are heartbreaking stories in the local news media of children from this community who have drowned in area lakes. An agreement with the ISD means that every fourth grader in the community will be taught to swim, so lives will be saved.

Invest \$1.50 a month and save a child's life!

Table 4 suggests there is probably some slack in a \$20.9 million budget; there is less slack in a net budget (i.e., amount of operations and maintenance funding coming from the property tax) of \$9.97 million, while it is hard to envisage any slack in a budget of 68 cents per resident per week. The \$2 million indoor natatorium bond proposal in Table 5 was likely to be difficult to pass because the community already had three functioning outdoor pools. However, the new natatorium was to be constructed as part of a new middle school, and the primary mission was to teach all sixth graders to swim there. This could not be accomplished at the outdoor pools. There were drownings at several reservoirs in the area. Instead of a \$2 million natatorium, the project was positioned as costing the average homeowners \$1.50 a month with the expectation this would save children from drowning. The bond proposal passed.

It has been noted that the act of parting with money is aversive (Prelec & Lowenstein 1998). Handing over cash and receiving change makes a user very aware of the price (Gourville & Soman, 2002). In contrast, changing the context by using credit cards has been shown to alleviate the pain of parting with money (Prelec & Simester, 2001) and facilitating spending (Feinberg 1986; Monger & Feinberg, 1997). Transactions with a credit card are not as "real" or as immediately painful as those made with cash. The lack of immediacy may reduce the influence of reference price in the purchase decision and widen the latitude of price acceptance. Thus, whenever park and recreation agencies facilitate the use of credit cards or of automatic monthly payments with a bank draft there is less likely to be price resistance.

Sunk Cost Effect

Sunk cost refers to the "greater tendency to continue an endeavor once an investment in money, time, or effort has been made" (Arkes & Blumer, 1985; p. 125). When the sunk cost or payment for a service is made at the time of purchase, then consciousness of price is high. At that time, the likelihood of people actually using a service is highest. They feel compelled to use it to avoid feeling they have wasted their money.

In situations where the sunk cost payment is made a long time in advance of use or if it is for a season ticket, then behavioral commitment is likely to decay with the

probability of use decreasing as time passes. This is because adaptation is likely to occur. Over time, the cost is gradually incorporated into an individual's financial status quo. This adaptation results in a new status quo to which users become accustomed and it becomes the reference standard against which the decision to use a service is made. This has been termed "payment depreciation" (Gourville & Soman, 1998). There is a gradual discounting of the initial price over time until ultimately the service takes on the characteristics of a free good. At that point, the reference standard is not the original monetary price paid, but rather an individual evaluates only if the benefits accruing from the service outweigh the costs of immediate constraints associated with the activity such as time availability, travel costs, amount of effort, and adverse weather. The discounting or discarding of the initial monetary price increases the probability that the service will not be used. If people cease to use a service over time, then they are likely to balk when requested to renew their payment in the future.

This phenomenon was illustrated in a study of payment plans at a health club (Gourville & Soman, 1998; 2002). All members paid the same annualized membership fee, but they could select from four payment plans: (a) pay the whole fee once a year, (b) pay half the fee every six months, (c) pay a quarter of the fee every three months, or (d) pay one-twelfth of the fee every month. The usage rate of the club's facilities among those selecting option (d) was approximately constant every month. These users felt the need to work out each month to justify their investment. Those selecting the other three options felt this need immediately after their payment, but their drive dissipated as the pain of the cost faded into the past:

Members who made a single annual payment used the club most frequently in the months immediately following payment, reflecting a strong sunk-cost effect. But as time passed, the sunk-cost effect dissipated. By the final months, individuals seemed to be treating their memberships as if they were free and worked out at a rate that was only a quarter of what it had been in the first few months. The same pattern held for members who had paid on a semiannual or quarterly basis: Attendance was highest immediately following payment, only to decline steadily until the next payment. This resulted in a sawtooth pattern of usage, spiking in the first and seventh months for semiannual payment members and every three months for quarterly members (Gourville & Soman 2002, p. 94).

This sunk cost effect is reinforced by the endowment effect (Thaler, 1980), sometimes called the "status quo bias" (Samuelson & Zeckhauser, 1982), which recognized the reluctance of people to part with assets that belong to their "endowment." In the above example of the health club, the monthly payers, who participate regularly, would have to give up an element of their lifestyle, which has become part of their "endowment," so it becomes difficult for them to terminate participating in the program. For the most part, people tend to prefer routine and stability over change.

In the Arts, it is a common strategy to bundle events together and sell them as packages. A similar sunk cost effect is often associated with the sale of such season tickets. For example, an analysis of ticket purchase and attendance data at a Shakespearean summer festival that involved the production of four plays revealed:

Some ticket holders had purchased tickets to a single play, some to two or three of the plays, and others to all four plays. What we found was that the no-show rate for people who had bought tickets to a single play was 0.696%, indicating that almost all ticket holders showed up. But the no-show rate for

those purchasing tickets to two plays was 3.596%; for three plays, 13.196%, and for four plays, 21.5%. As the bundling of tickets increased from one to four plays, the likelihood of a person not showing up for one of the plays rose 35- fold (Gourville & Soman, 2002; p. 94).

Participant Adjustment Period

A price that has been charged for a season or more typically becomes the internal reference price, irrespective of the level at which it is set. Thus, in these cases when users are asked if a price is too high, too low, or about right, 70% - 80% are likely to respond "about right" (Reiling et al. 1988; Coalter, 2004; Fix & Vaske, 2007; Vaske, Donnelly, & Taylor, 1999; Ostergren, 2005; Lundgren, Lime, & Warzecha, 1997; Duffield, Patterson, & Neher, 2000). Any increases from this reference point are routinely accepted if they stay within the latitude of price acceptance (i.e., they are "nibbles"). However, when prices are raised beyond the latitude of price acceptance, it is likely that there will be immediate clientele resistance. In these cases, the negative reaction is likely to be motivated as much by outrage or pique at its "unfairness" as by perceived inability to pay the new price.

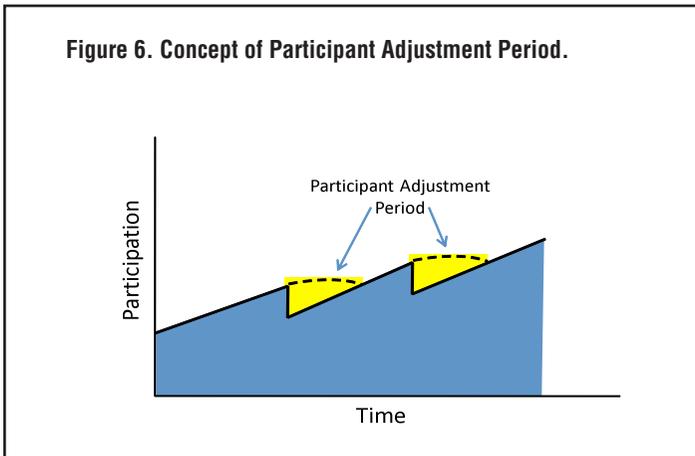
This response is likely to be particularly prominent if the price goes from zero to some monetary value for the first time. This was empirically verified by McCarville, Reiling, & White, (1996) in their study of Corps of Engineers recreation area visitors. They compared respondents who had paid admission to similar facilities during the past 12 months with those who reported not doing so. The former group:

were more willing to pay a "fair day-use fee," to support fees used to maintain favored day-use areas, and to pay fees sufficient to cover maintenance costs ... and also more in agreement with the notion that higher fees could be charged for more modernized sites. Those who had not paid fees for similar services over the past 12 months were more likely to report that they would no longer visit any Corps day-use areas if fees were initiated (p. 68).

The authors stated that those unaccustomed to paying a price "often reported feeling victimized through the introduction of fees" (p. 74). It seems likely that those accustomed to not paying a price may feel that any fee, regardless of its magnitude, would violate their expectations. Their evaluation of fairness revolves around the issue of to pay or not to pay, whereas for those accustomed to paying a fee the issue is: How much is it fair for me to pay? It seems likely that implementing new fees and increasing existing fees to a level outside the latitude of acceptance will evoke different intensity of adverse response. The former may be perceived as a more radical shift in policy and, hence, generate more controversy.

Over time, adaptation to a price outside the latitude of acceptance takes place. A price that is initially perceived to be unfair is likely to slowly evolve into a new norm that is accepted by most people and is no longer perceived as unfair (Kahneman et al., 1986). This process results in a participant adjustment period and is illustrated in Figure 6. The length of adjustment period will vary according to (a) the magnitude of the increase; (b) the availability of substitute service suppliers, (c) the income level of the client group, (d) the type of service offered, and (e) the frequency of use.

Crompton and Kim (2001) surveyed a large panel of park visitors over a 16-month period to track their reaction to substantial price increases at Texas state parks. Among per-visit payers, the decay in resistance to the price increase over 16 months was "narrow and limited" for two reasons. First, many users had strong internal reference prices for substitute suppliers whose prices were lower, and the new state park prices compared unfavorably



to the substitute suppliers' prices. Second, per-visit payers to state parks were infrequent visitors. Hence, the traditional reference price remained strong because of the infrequent exposure to the new price. In contrast to the per-visit payers, the decay in resistance to the new prices among season pass purchasers was significant over this time period.

This evidence suggests a fairly lengthy adjustment period is likely for infrequently used services, because infrequent exposure to the new price means it takes longer for it to become the new internal reference price. However, for those park and recreation services that are used regularly (at least once a week) the anecdotal conventional wisdom is that the adjustment period is likely to be no longer than three months or one season (Crompton & Lamb 1986).

Three strategies can be used to mitigate the effect of price increases outside the latitude of price acceptance to minimize the duration of the participant adjustment period. First, if annual or season passes are involved, then existing pass holders could be invited to renew them before the new rates become effective. These heavy users are likely to be in the vanguard of objectors and this action will pre-empt their objections. They are likely to appreciate being given such preferential treatment, and by the end of the year or season when their renewal is scheduled, they are likely to have adapted to the new price so it has become their reference price.

A second strategy is to provide client groups with as much warning as possible of a forthcoming price increase. If awareness of such an increase is established in clients' minds some time before actual implementation, then at least some participant adaptation is likely to have taken place by the time the price change occurs. Thus, if prices are to be raised on May 1, they should be announced the previous December/January and be widely publicized so participants have time to adapt to the new price as the reference price.

A third strategy, derived from attribution theory and the Principle of Dual Entitlement (Kahneman et al., 1986), requires the agency to demonstrate to skeptical users that, despite its magnitude, the increase is fair. If it is attributable to an increase in costs, then the cost information should be provided to justify it. Thus, early work by McCurdy (1970) who tracked reactions to a fee program at a National Wildlife Refuge concluded, "If improvements are made at the time fees are initiated or increased, disapproval by the public is minimized" (p.646). Alternatively, if a large increase is attributable to a shift in the city's philosophy on cost recovery, then the rationale for the shift should be explained.

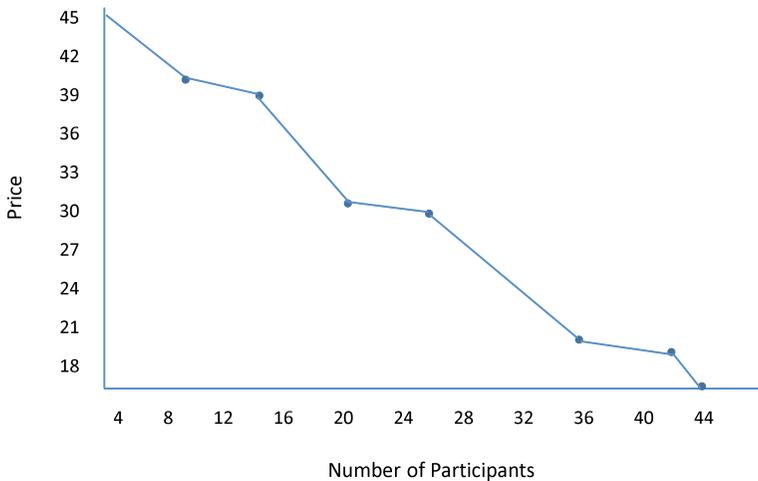
Odd Pricing

It is common in the commercial market place for the price of products and services to end with the number 9, for example, \$9.99 instead of \$10, or \$29 instead of \$30. Retailers initiated this practice in the early 1900s to reduce dishonesty among store assistants (Schindler & Kirby, 1997). The 9-ending required them to use the cash register to make change, since most people paid in even-dollar amounts. This reduced their opportunity to pocket the payment.

Nowadays, this practice has continued because it is believed to create an illusion of lower prices. Several explanations have been offered to explain this phenomenon, but the most convincing is termed “truncation” (Liu & Soman 2008). This explanation derives from research demonstrating that people process prices from left to right. For example, in the following example, which pair of prices—set A: \$79 \$93 or set B: \$75 \$89 appears to the most different? Most people are likely to select set A. It is suggested that this occurs because of a tendency to reach a decision by only comparing the left-side digits, so the difference between 7 and 9 is greater than that between 7 and 8 (Stiving & Winer, 1997).

Truncation involves people cutting off reading a price’s digits before all of them have been recognized and encoded. It is suggested that the magnitude of the numbers is encoded very rapidly and a conclusion reached before all the digits are read. Thus, the price perception is anchored by the left-most digit(s). Given that people have a limited learning capacity, this is a heuristic that enables them to simplify the complexity emanating from the bombardment of information to which they are subjected. Thus, a price of \$29.99 will be rounded down to \$29.00 if the last two digits are omitted, or to \$20.00 if only the first digit is processed. If this strategy was used for pricing recreation classes, for example, then the agency lowers the perceived price by almost either \$1 or \$10 for the cost of one penny.

Figure 7. The Influence of Odd Pricing on Demand.



A conceptual illustration of the influence of odd pricing on demand is shown in Figure 7. The figure shows that as the price decreases from \$45 to \$18, the number of individuals enrolled in the program can be expected to increase. However, at the odd prices of \$39, \$29, and \$19, disproportionately more people enroll than at the rounded prices immediately above them. Thus, 10 people enroll at \$40, but this increases to 15 at \$39. Similarly, at \$30, Figure 7 shows enrollment at 20 people, but this number increases to 26 when the odd price of \$29 is used.

Despite the widespread adoption of odd pricing in the private sector, few park and recreation agencies price their recreation classes at \$19, \$29, or \$39; their swim pool admission at \$3.99; or their annual passes at \$199. There are three possible reasons for this lack of adoption. First, there may be a lack of awareness of the strategy potential for reducing perceptions of the magnitude of a price. Second, the absence of a tradition of odd pricing in the field may cause agency managers to be reluctant to implement it because of a concern that it may be controversial. A third reason for the lack of odd pricing may be concern with its underlying intent, which is to create an illusion. This may be viewed as deceitful, slick, and exploitive; inconsistent with the criterion of fairness and the ethical standards expected of public agencies; and incongruent with a community's social norms and value system.

These reservations may argue against using this strategy when first pricing a recreational opportunity. However, there may be price revision decisions in which odd pricing may be appropriate. Consider a recreation class for which costs increase by \$3 each year. Last year this meant the price went from \$24 to \$27. It should be raised to \$30 this year. To reduce price resistance and potential decreases in enrollment, there may be merit in raising it only to \$29. Next year, the lost revenue could be recovered by setting a price of \$33, because odd pricing suggests there will be no more resistance to \$33 than there would be to \$32 or \$30. If there was a need in two years time to generate more revenue, then the usual \$3 increase could be raised to (say) \$5 to move the price from \$33 to \$38. Given the first digit remains the same, it is likely there would be relatively little user resistance.

Self-Esteem Pricing

Many park and recreation agencies offer programs targeted at the physically, mentally, or economically disadvantaged. Some among these client groups may be offered services at a lower price than regular users. However, the internal reference price may be the same for all users. Because adaptation to a discounted price requires accepting a status that is demeaning to many of them, such price reductions are likely to be resisted. Many are less likely to feel a sense of stigma or loss of dignity if they pay the going rate; make a partial payment; or engage in "sweat equity" by which they pay for the program fees "in kind" rather than in cash through performing work tasks for the agency that are equivalent in value to the program fees. Paying the regular price may enhance an individual's sense of self-esteem and social responsibility.

Customary Pricing

There are occasions when costs for a service increase by an unusual amount; when policy changes require a larger proportion of costs to be covered by revenues; or some other contingency arises that appears to make an increase beyond the latitude of price acceptance inevitable. An alternative strategy, however, is to keep the price increase within the latitude zone and to cut the program costs. This strategy preserves the existing price by disguising changes in the level of service, and so removes the need for adaptation to a new price. This has been termed "candy-bar pricing" (Blinder, Caunetti, & Labow, et al., 1998) in recognition of the candy companies' strategy of keeping the price of a chocolate

bar at (say) 50 cents and the packaging at the same length to perpetuate the illusion of the status quo, while incrementally reducing the size of the bar. Similar examples abound in the private sector:

- Like candy bars, cigarettes, potato chips and cookies may keep the same price and packaging, but reduce the size or quantity of the product.
- Telephone companies may keep the same price, but reduce the amount of calling time it buys.
- Restaurants may reduce the size of meal portions (and the size of plates on which the meals are served to “hide” the reductions), while holding down the price.

In the parks and recreation field, the term “customary pricing” has been adopted to describe this strategy because this situation often arises when a price has been at the same level for so long that users have become accustomed to it and raising it will arouse protests (Howard & Crompton, 1980). Customary prices are difficult for a parks and recreation manager to ignore. In a sense, the existence of customary or traditional prices simplifies the pricing task. Historical precedent or custom has determined these prices, and it is up to the agency to produce programs or services that may be offered economically at those prices. The emphasis has to be on cost control, which means reducing the quantity of the service offered. Consider the following examples:

- Retain the price of a senior citizen annual pass for the golf course, but limit its use to off-peak times or to a fixed number of rounds per year (say 50) after which the regular greens fee applies. The times and number of rounds may be incrementally curtailed each year with the increments being small enough to stay within the latitude of acceptance.
- Retain the price for a softball league, recreation class, etc., and incrementally reduce the number of games or classes the fee buys.
- The price for the regular Thanksgiving Day college football game had been \$95 for several years. There was concern that raising the price to \$100 for the always sold out game would generate negative fan and alumni reactions keeping the price at \$95. The equivalent amount of revenue, but reducing the width of bench seats in the stadium from 16” to 14” so more spectators could be accommodated.

When the quantity of service offered reaches the lowest point, which is acceptable to a client group, then raise the price and justify the raise by a commensurate increase in the quantity offered. Applying this strategy to a recreation class may result in the pattern shown in Table 6.

The cost reduction associated with customary pricing should always be imposed on the quantity of service provided, not on its quality. There is an aphorism that states, “The pain of low quality is remembered, long after the joy of low price is forgotten.” The adaptation mechanism ensures that price changes have a relatively short-term impact on the psyche. Memories of poor quality are much more durable. This makes it unwise to reduce quality in order to “hold the line” on price. The long-term viability of an agency depends on the effectiveness of its services. If this is compromised, then its reputation and image suffer, and the confidence and support of users, together with that of their elected representatives, diminishes.

Table 6. An Illustration of Customary Pricing Applied to a Recreation Class.

Year	Number of Classes	Price
1	10	\$50
2	9	\$50
3	8	\$50
4	7	\$50
5	10	\$70
6	9	\$70

Concluding Comments

It is now widely recognized that client groups and elected officials do not always respond positively to rational pricing decisions, because the rational person assumption inherent in neoclassical economic theory does not accommodate individuals' residual knowledge, prevailing community equity norms, and differences in the contexts in which park and recreation services are delivered. Economic theory does provide a useful skeletal framework on which to build pricing decisions, but it is incomplete. In the political arena, emotion and compromise, for better or worse, invariably trump rationality. There has to be constituency support and/or minimum stakeholder opposition before changes to the status quo are likely to be made. The key to meeting these conditions is that any change in price must be viewed as "fair." Stakeholders have an expectation of what an acceptable price should be and if a suggested price is perceived to be dissonant with that expectation, there is likely to be resistance.

This paper has briefly described how internal reference prices are formed and explained that they are malleable. A detailed discussion of these processes is available elsewhere (Crompton 2011, in press). Eleven strategies have been presented that show how internal reference price can be manipulated by park and recreation managers to facilitate price changes, while minimizing stakeholder resistance to price changes. They are strategic tools that move park and recreation managers and elected officials away from the arbitrary and intuitive actions that have traditionally prevailed. They can be used to meet Arnold Meltzner's (1971) pragmatic definition of a "perfect" price in the political arena suggested almost 40 years ago:

The "perfect" local user charge is not one where the payer gets the benefit, or where service levels are determined, or where there are no income distribution effects. For the local official, the perfect user charge may have these features but of overriding importance to him or her is whether the public will resist paying for the service (p 271).

References

- Arkes, H. R., & Blumer, C. C. (1985). The psychology of sunk cost. *Organizational Behavior and Human Decision Processes*, 35(February), 124-140.
- Berry, L. L., & Parasuraman, A. (1991). *Marketing services: Competing through quality*. New York: Free Press.
- Blinder, A. S., Caunetti, R. R. D., Labow, D. E., & Rudd, J. B. (1998). *Asking about prices: A new approach to understanding price stickiness*. New York: Russell Sage Foundation.
- Briesch, R. A., Krishnamurthi, L., Mazumdar, T., & Raj, S. P. (1997). A comparative analysis of reference price models. *Journal of Consumer Research*, 24(2), 202-214.
- Coalter, F. (2004). Reference pricing: changing perceptions of entrance charges for sport and recreation. *Managing Leisure*, 9(2), 73-86.
- Cram, T. (2006). *Smarter pricing: How to capture more value in your market*. New York: Prentice Hall.
- Crompton, J. L. (1982). Psychological dimensions of pricing leisure services. *Recreation Research Review*, 9(3), 12-20.
- Crompton, J. L. (1984a). The equitability of full price policies for senior citizens. *Journal of Park and Recreation Administration*, 2(1), 3-8.
- Crompton, J. L. (1984b). Treating equals equally: Common abuses in pricing public services. *Parks and Recreation*, September, 67-71.
- Crompton, J. L., & Kim, S. (2001). Reactions to a large increase in admission price to state parks. *Journal of Park and Recreation Administration*, 19(4), 42-59.
- Crompton, J. L., & Lamb, C. W. (1986). *Marketing government and social services*. New York: John Wiley.
- Crompton, J. L., & West, S. T. (2008). The role of moral philosophies, operational criteria and operational strategies in determining equitable allocation of resources for leisure services in the United States. *Leisure Studies*, 27(1), 35-58.
- Crompton, J. L. (a, in press). Using external reference price to reduce resistance to leisure pricing increases. *Managing leisure*.
- Crompton, J. L. (b, in press). A theoretical framework for formulating non-controversial prices for public park and recreation services. *Journal of Leisure Research*.
- Cronley, M. L., Posavac, S. S., Meyer, T., Kardes, F. R., & Kellaris, J. J. (2005). A selective hypothesis testing perspective on price-quality inference and inference-based choice. *Journal of Consumer Psychology*, 15(2), 159-169.
- Della Bitta, A. J., & Monroe, K. B. (1974). The influence of adaptation levels on subjective price perceptions. In S. Ward, & P. Wright (Eds.), *Advances in Consumer Research*, 1(1), 359-369.
- Della Bitta, A. J., & Monroe, K. B. (1980). A multivariate analysis of the perception of value from retail price advertising. *Advances in Consumer Research*, 7, 161-165.
- Della Bitta, A. J., Monroe, K. B., & McGinnis, J. M. (1981). Consumer perceptions of comparative price advertisements. *Journal of Marketing Research*, 18(November), 416-427.
- Dewar, N., & Parker, P. (1994). Marketing universals: Consumers' use of brand name, price, physical appearance, and retailer regulation as signals of product quality. *Journal of Marketing*, 58(April), 81-95.
- Doob, A. N., Carlsmith, J. M., Freedman, J. L., Landauer, T. K., & Tom, S. (1969). Effect of initial selling price on subsequent sales. *Journal of Personality and Social Psychology*, 11(4), 345-350.
- Driver, B. L. (1984) Public responses to user fees at public recreation areas. In *Proceedings: Fees for outdoor recreation on lands open to the public*. Goreham, New Hampshire: Research Department Appalachian Mountain Club, 47-51.

- Duffield, J., Patterson, D., Neher, C., & Chambers, C. (2000). Evaluation of the National Park Service Fee Demonstration Program: 1998 visitor survey. *The University of Montana and the National Park Service research summary*, Washington, D.C.: National Park Service Social Science Program.
- Feinberg, R. A. (1986). Credit cards as spending facilitating stimuli: A conditioning interpretation. *Journal of Consumer Research*, *13*, 348-356.
- Fix, P. J., & Vaske, J. J. (2007). Visitor evaluations of recreation user fees at Flaming Gorge National Recreation Area. *Journal of Leisure Research*, *39*(4), 611-622.
- Gabor, A., & Granger, C. W. (1964). Price sensitivity of the consumer. *Journal of Advertising Research*, *4*(December), 40-44.
- Gabor, A., & Granger, C. W. (1965). The pricing of new products. *Scientific Business*, August, 143.
- Gabor, A., & Granger, C. W. (1966). Price as an indicator of quality: Report on an enquiry. *Economica*, *33*(February), 43-70.
- Gardner, D. M. (1970). An experimental investigation of the price/quality relationship. *Journal of Retailing*, *46*(3), 25-41.
- Gourville, J. T., & Soman, D. (1998). Payment depreciation: The behavioral effects of temporally separating payments from consumption. *Journal of Consumer Research*, *25*(2), 160-175.
- Gourville, J. T., & Soman, D. (2002). Pricing and the psychology of consumption. *Harvard Business Review*, (September), 90-96.
- Gratton, C., & Taylor, P. (1995) From economic theory to leisure practice via empirics: The case of demand and price. *Leisure Studies*, *14*(4), 245-262.
- Gupta, S., & Cooper, L.G. (1992). The discounting of discounts and promotion thresholds. *Journal of Consumer Research*, *19*(December), 401-411.
- Helson, H. (1964). *Adaptation-level theory: An experimental and systematic approach to behavior*. New York: Harper & Row.
- Hinrichs, J. V., & Novick, L. R. (1982). Memory for numbers: Nominal vs. magnitude information. *Memory & Cognition*, *19*(5), 479-486.
- Honomichi, J. (1991). A price that's too good to be good usually is. *Marketing News*, February 4, p. 17.
- Howard, D. R., & Crompton, J. L. (1980). *Financing, managing and marketing recreation and park resources*, Dubuque, Iowa: Wm. C. Brown.
- Howard, D. R., & Selin, S. W. (1987). A method for establishing consumer price tolerance levels for public recreation services. *Journal of Park and Recreation Administration*, *5*(3), 48-59.
- Huber, J. W., Payne, J. W., & Puto, C. (1982). Adding asymmetrically dominated alternatives; Violations of regularity and the similarity hypothesis. *Journal of Consumer Research*, *9* (June), 90-98.
- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, *47*(2), 263-291.
- Kahneman, D., Knetsch, J. L., & Thaler, R. H. ((1986). Fairness as a constraint on profit seeking: Entitlements in the market. *American Economic Review*, *76*(September), 728-741.
- Kalyanaram, G., & Little, J. D. C. (1994). An empirical analysis of latitude of price acceptance in consumer package goods. *Journal of Consumer Research*, *21*(3), 408-418.
- Kalyanaram, G., & Winer, R.S. (1995). Empirical generalizations from reference price research. *Marketing Science*, *14*(3), 1-2, G161-G169.

- Kaman, J. M., & Toman, R. J. (1970) Psychophysics of price. *Journal of Marketing Research*, 7(February), 27-35.
- Kim, S. S., & Crompton, J. L. (2001). The effects of different types of information messages on perceptions of price and stated willingness to pay. *Journal of Leisure Research*, 33, 299-318.
- Kitchener-Waterloo Record Editorial. (1993). Sports clubs hit with higher user fees. *Kitchener-Waterloo Record*, July 6, p. B3.
- Krishnamurthi, L., Mazumdar, T. & Raj, S. P. (1992). Asymmetric response to price in consumer brand choice and purchase quantity decisions. *Journal of Consumer Research*, 19(December), 387-400.
- Kyle, G. T., Kerstetter, D. L., & Guadagnolo, F. B. (1999). The influence of outcome messages and involvement on participant reference price. *Journal of Park and Recreation Administration*, 17(3), 53-75.
- Leavitt, H. J. (1954). A note on some experimental findings about the meaning of price. *Journal of Business*, 27(July), 205-210.
- Leuschner, W. A, Cook, P. S., Roggenbuck, J. W. & Oderwald, R. G. (1987). A comparative analysis for wilderness user fee policy. *Journal of Leisure Research*, 19(2), 101-114.
- Liu, M.W., & Soman, D. (2008). Behavioral pricing. In Haugtvedt, C., Herr, P., & Kardes, F. (Eds.), *Handbook of consumer psychology* (pp. 659-681). Mahwah, NJ: Lawrence Erlbaum Associates.
- London Times editorial. (2002). Losing the plot: The Mousetrap has outlived the age of satire. *London Times*, November 27.
- Lundgren, A. L., Lime, D. W., Warzecha, C. A., & Thompson, J. L. (1997). Monitoring 1997 park visitor reactions to the National Park Service Recreational Fee Demonstration Program. *Research Summary No. 10*, Minneapolis: Cooperative Park Studies Unit, University of Minnesota.
- Mazumdar, T., Raj, S. P., & Sinha, I. (2005). Reference price research: Review and propositions. *Journal of Marketing*, 69(4), 84-102.
- McCarville, R. E., & Crompton, J. L. (1987a). Propositions addressing perceptions of reference price for public recreation services. *Leisure Sciences*, 9(4), 281-292.
- McCarville, R. E., & Crompton, J. L. (1987b). An empirical investigation of the influence of information on reference prices for public swimming pools. *Journal of Leisure Research*, 19(3), 223-235.
- McCarville, R. E. (1991). An empirical investigation of the influence of cost information on willingness to pay for public aerobics classes. *Leisure Sciences*, 13, 85-96.
- McCarville, R. E., Crompton, J. L., & Sell, J. A. (1993). The influence of outcome messages on reference prices. *Leisure Sciences*, 15, 115-130.
- McCarville, R. E. (1990). The role of cognitive processes in explaining reactions to price change for leisure services. *Journal of Park and Recreation Administration*, 8 (3), 76-86
- McCarville, R. E. (1996) The importance of price last paid in developing price expectations for a public leisure service. *Journal of Park and Recreation Administration*, 14(4), 52-64.
- McCarville, R. E. (1998). The anchoring effect of price last paid information on willingness to pay levels. *Journal of Applied Recreation Research*, 22(3), 191-210.
- McCarville, R. E., Reiling, S. D., & White, C. M. (1996). The role of fairness in users' assessments of first time fees for a public recreation service. *Leisure Sciences*, 18, 61-76.
- McCurdy, D. R. (1970). Recreationists' attitudes toward user fees: Management implications. *Journal of Forestry*, 68(10), 645-646.

- Marshall, R., & Leng, S. B. (2002). Price threshold and discount saturation point in Singapore. *Journal of Product and Brand Management*, 11(3), 147-159.
- Mazumdar, T., & Jun, S. Y. (1992). Effects of price uncertainty on consumer purchase budget and price threshold. *Marketing Letters*, 3(3), 323-330.
- Meltsner, A. J. (1971). *The politics of city revenue*. Berkeley, CA: University of California Press.
- Miles, A. F., & Feller, A. J. (1986) *Paying for backcountry recreation experiences: Understanding the applicability of user fees*. Presentation at First National Symposium on Social Science in Resource Management. Corvallis, Oregon: Oregon State University
- Monger, J. E., & Feinberg, R.A. (1997). Mode of payment and formation of reference prices. *Pricing Strategy and Practice*, 5(4), 142-147.
- Monroe, K. B. (1971). Measuring price thresholds by psychophysics and latitudes of acceptance. *Journal of Marketing Research*, 8(November), 460-464.
- Monroe, K. B. (1973). Buyers' subjective perception of price. *Journal of Marketing Research*, 10(February), 20-80.
- Monroe, K. B., & Lee, A. Y. (1999) Remembering versus knowing: Issues in buyers' processing of price information. *Journal of the Academy of Marketing Science*, 27(2), 207-225
- Monroe, K. B. (2003) *Pricing: making profitable decisions*. New York: McGraw-Hill
- Nagle, T. T., & Holden, R. K. (1995), *The strategy and tactics of pricing*, Englewood Cliffs, NJ: Prentice-Hall.
- Ostergren, D. Solop, F. I., & Hagen, K. K. (2005). National Park Service fees: Value for the money or a barrier to visitation. *Journal of Park and Recreation Administration*, 23(1), 18-36.
- Petroshius, S. M., & Monroe, K. B. (1987). Effect of product line pricing characteristics on product evaluations. *Journal of Consumer Research*, 13(March), 511-519.
- Prelec, D., & Lowenstein, G. (1998). The red and black: Mental accounting of savings and debt. *Marketing Science*, 17 (Winter), 4-28.
- Prelec, D., & Simester, D. (2001). Always leave home without it: A further investigation of the credit card effect on willingness to pay. *Marketing Letters* 1; (12), 5-12.
- Raghubir, P. (2006). An information processing review of the subjective value of money and prices. *Journal of Business Research*, 59, 1053-1062.
- Rao, A. R., & Monroe, K. B. (1989) The effect of price, brand name and store name on buyers' perceptions of product quality: An integrative review. *Journal of Marketing Research*, 26(3), 351-357.
- Reiling, S. D., Criner, G. K., & Oltmann, S. E. (1988). The influence of information on users' attitudes towards campground user fees. *Journal of Leisure Research*, 20(3), 208-217.
- Samuelson, W., & Zeckhauser, R. (1988). Status quo bias in decision making. *Journal of Risk and Uncertainty*, 1(1), 7-59.
- Schwer, R. K., & Daneshvary, N. (1997). The effect of information on attitudes regarding tour fees: The case of the Hoover Dam powerplant tour. *Journal of Travel Research*, 36(2), 37-42.
- Schindler, R. M., & Kirby, P. N. (1997). Patterns of rightmost digits used in advertised prices: Implication for nine-ending effects. *Journal of Consumer Research*, 24(2), 192-201.
- Scitovszky, T. (1945). Some consequences of the habit of judging quality by price. *The Review of Economic Studies*, 12(2), 100-105.

- Sherif, M., & Hovland, C. I. (1961). *Social judgment: Assimilation and contrast effects on communication and attitude change*. New Haven: Yale Univ. Press.
- Simonson, I., & Tversky, A. (1992). Choice in context: trade-off contrast and extremeness aversion. *Journal of Marketing Research*, 29(August), 281-299
- Striving M., & Winer, R. S. (1997). An empirical analysis of price ending with scanner data. *Journal of Consumer Research*, 24(June), 57-67
- Thaler, R. (1980). Towards a positive theory of consumer choice. *Journal of Economic Behavior and Organization*, 1, 39-60.
- Vaske, J. J., Donnelly, M. P., & Taylor, J. G. (1999). The price is "about" right: National Wildlife Refuge visitors' evaluations of the fee demonstration program. *Human Dimensions of Wildlife*, 4(4), 62-72.
- Volkman, J. (1951). Scales of judgment and their implications for social psychology. In J. Rohrer, & M. Sherif (Eds.), *Social psychology at the crossroads* (pp. 273-296). New York: Harper.
- Winter, P. L., Palucki, L. J., & Burkhart, R. L. (1999). Anticipated responses to a fee program: The key is trust. *Journal of Leisure Research*, 31(3), 207-226.

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