Regular Paper

Sustaining Civic Recreation: Understanding What Shapes Climbers’ Contributions to Local Resource Stewardship and Advocacy

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Abstract
A new form of recreation-focused collective action has grown over recent decades. Practitioners of shared outdoor recreation interests are coordinating to meet stewardship and advocacy goals. Such “civic recreation organizations” blur the lines between voluntary sport clubs, interest groups, and resource management, promising concentrated recreational benefits and offering the potential for positive impacts for other user groups and stakeholders, land managers, and perhaps even the general public. This study draws insights from leisure, voluntary contributions, and social exchange research to examine how the relationship between a recreationist and a civic recreation organization, recreational commitment, and the likelihood of receiving tangible benefits may impact recreationist’s propensity to contribute to civic recreation through organizational membership, donations, and volunteering. The analysis offers theoretical insights into how trust and recreational commitment might support sport-centered local civic environmentalism, with practical implications for civic recreation leaders.

KEYWORDS: Stewardship, outdoor recreation, resource management, volunteer, donate

Introduction
A relatively new form of civic action has grown over recent decades across North America. Practitioners of alternative and lifestyle sports—activities such as surfing, mountain biking, and rock climbing—are increasingly organizing in voluntary groups and dedicated initiatives. A growing literature characterizes these initiatives through a number of constructs, from “interest groups” (Shelby & Shindler, 1992) to “outdoor recreation voluntary associations” (Lu & Schuett, 2014). However, the conceptualization that arguably best captures their spirit, purpose, and structure, is Rebecca Schild’s (2019) “civic recreation organizations,” which combines their recreation-specific orientations and potential for broader contributions.
Much like voluntary sport clubs found in competitive and team contexts (Breuer et al., 2015), civic recreation organizations are made up of practitioners with a shared interest in a recreational pastime. Unlike sport clubs, the activities around which most civic recreation members coalesce occur in public lands and other outdoor areas. As a result, civic recreation organizations blur the line between interest groups and natural resource management, with missions that promote recreation-specific concerns while advancing sport-centered environmental stewardship and conservation goals (Carter & Weible, 2014; Schild, 2018).\(^1\) They seem to mobilize grassroots action in manners similar to broader civic movements (Knopman et al., 1999) and engage the multiparty, participatory, and place-based processes characteristic of collaborative natural resource management (Conley & Moote, 2003).

Although led by small (if motivated) segments of the communities they serve, the work of civic recreation organizations is often sustained by the voluntary contributions of everyday recreational practitioners (aka “recreationists”). Organizational members, financial donations, and volunteer labor enable recreational access initiatives, from advocacy regarding prohibitive land management policies to the purchase of natural resources that face closure and/or destruction due to private development. They also fuel environmental stewardship projects, from trail maintenance to infrastructure improvements, the benefits of which may spill over to other resource users and stakeholders in natural resource management. For these reasons, understanding what motivates voluntary contributions to civic recreation is central to supporting both the concentrated benefits and possible broader positive externalities that such organizations generate (Lu & Schuett, 2014; Schild, 2018).

This paper aims to further such an understanding. Drawing on insights from marketing (e.g., Sargeant et al., 2006), voluntary action research (Tonkiss & Passey, 1999), serious leisure (Tsaur & Liang, 2008), and social exchange theory (Amos, 1982), I examine how an individual’s trust in a civic recreation organization, recreational commitment, and the likelihood of receiving tangible benefits relate to their propensity to contribute to civic recreation through organizational membership, donations, and volunteering. I then examine how these factors are related to the propensity to contribute through more than one contribution type. The analysis offers theoretical insights into how trust and recreational commitment might support sport-specific variants of civic environmentalism, with practical implications for civic recreation leaders.

**Theorizing Voluntary Contributions to Civic Recreation Organizations**

This study seeks a better understanding of what drives everyday recreationists to contribute to civic recreation organizations. The literature offers a range of influences on voluntary contributions, including contextual social and situational factors, as well as individual circumstances, personality traits, and attitudes (Smith, 1994; Wilson, 2012). Research closer to this study’s focus indicates there are important personal and social dimensions to engagement with a recreationally-oriented organization. For example, people may contribute as an extension of their self-identities (e.g., as a “climber,” “mountain biker,” etc.) and for social connections with like-minded individuals (Dury et al., 2015; Lu & Schuett, 2014; Schild, 2018; van Ingen & Wilson, 2017). An altruistic desire to improve the environment may also play a role (Ryan et al., 2001), as may the desire to express one’s value for natural places (Grese et al., 2000).

\(^1\)As indicated by one anonymous reviewer, it could be that civic recreation organizations are an echo of (or similar to) earlier “sportsman” organizations that sought to shape both land management and local politics through conservation efforts (e.g., Jacoby, 2001). The extent to which and how civic recreation organizations represent a newer iteration of these earlier sportsman organizations are certainly worth pursuing. As the answer is tangential to this paper, however, I leave it for future work.

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I suggest that three factors have been largely overlooked to date in the context of civic recreation, but likely play prominent roles in shaping organizational contributions. The first is the individual-organization relationship, which I conceptualize as recreationists’ trust in a civic recreation organization. The second is recreationists’ relationship with their recreational pursuit, which I approach in this paper by way of their recreational “commitment.” The third is an expected “return on investment” from recreationists’ contributions.

**How Trust, Recreational Commitment, and Return on Investment May Shape Recreationists’ Willingness to Contribute**

As a sport-centered expression of local resource advocacy and stewardship (Schild, 2018, 2019), civic recreation depends (to some degree) on trust as a basic social capital asset that helps foster collective local stewardship and advocacy action (Bennett et al., 2018). Scholars have considered how different conceptualizations of trust enable and support voluntary action (Passey & Tonkiss, 2000; Tonkiss & Passey, 1999). Here, “trust” refers to specific trust—that which individuals hold relative to a particular entity (Sargeant & Lee, 2004). The conceptualization draws from marketing research, which considers trust as a client's belief that their desires will be faithfully fulfilled by an organization's future actions (Dwyer et al., 1987; Gulati, 1995). Although specific trust may be shaped, to some degree, by an individual's generalized trust in people and society (Stolle, 1998) or institutional trust (e.g., in the credibility of the nonprofit sector; Passey & Tonkiss, 2000), it is more directly related to perceptions of an organization's expertise, reliability, and intentions (Sargeant & Lee, 2004).

In the realm of nonprofit organizations, trust may be particularly important when it comes to financial donations. Perceptions of nonprofit waste can pose a significant barrier to giving, spurred by suspicions of inefficient organizational processes, ineffective programs, and concerns that donations will be disproportionately directed toward salaries and administrative matters (Tonkiss & Passey, 1999). Specific trust in an organization may be a critical factor in overriding such suspicions. Trust is likely also important to nonprofit volunteering, as it can help generate the organizational commitment needed to motivate donations of time and effort (Sargeant & Lee, 2004). Finally, trust can help engender support for advocacy work, as contributors want to ensure representation by a credible and legitimate entity (Schmid et al., 2008). For these reasons, I expect that greater trust fosters willingness to contribute:

**Trust hypothesis:** The greater a recreationist's trust in a civic recreation organization, the more likely they are to support it through membership, donations, or volunteering.

The preceding discussion of trust highlights individuals' relationships with civic recreation organizations; literature found in the realm of leisure theory (Stebbins, 1992) draws attention to how recreationists' relationship with their recreational pursuit might shape their contributing. I consider the impact of recreationists’ “commitment” to their chosen activity, indicated by the frequency and length of time with which they practice it, reflecting behavioral elements underlying what leisure scholars refer to as recreational specialization (Scott & Shafer, 2001; Tsaur & Liang, 2008). From leisure specialization theory, I draw the idea that an activity tends to become more central to one's identity as one devotes more time and resources to it (Bryan, 1977), and the more central the activity, the more invested one becomes in its social and biophysical resource dimensions (Ditton et al., 1992). Thus, assuming that the higher a recreationist's commitment to their recreational pursuit, the more invested they are likely to be in addressing the challenges associated with it, I expect commitment to be positively related to recreationists’ willingness to contribute to civic recreation:

http://www.ejorel.com/
Recreational commitment hypothesis: The higher a recreationist's commitment to a recreational pursuit, the more likely they are to support a civic recreation organization through membership, donations, or volunteering.

Finally, a social exchange perspective on voluntary contributions (e.g., Amos, 1982) suggests that individuals are, to some degree, motivated to contribute out of an expectation of receiving some sort of “return on investment” for the commitment or capital that they provide. Several types of benefits might motivate an individual to give, including emotional or familial utility. Among the more evident are “demonstrable” benefits: tangible results that a contributor receives (or expects) as a consequence of their support (Sargeant et al., 2006). The logic is straightforward—individuals that associate contributing with tangible benefits are more likely to contribute. Theory suggests, however, that the cost-benefit reasoning that underlies social exchange motivations favor less “costly” contributions (Chinman & Wandersman, 1999) and research demonstrates that tangible benefits are less likely to foster the commitment which underlies active organizational participation (Sargeant et al., 2006). I thus expect that “return on investment” expectations motivate membership and donations, but not volunteering:

ROI hypothesis: Recreationists that are most likely to experience tangible benefits from a civic recreation organization are more likely to support it through membership or donations.

How Trust and Recreational Commitment May Encourage Cumulative Contributions

Beyond examining the factors that influence individual contributions to civic recreation through membership, donations, or volunteering, this study considers what drives recreationists to engage in more than one type of contributing behavior—their “cumulative contributions.” Research suggests that individuals who engage in one type of contributing behavior are more likely to engage in others (Wang & Ashcraft, 2014), yet it appears that one type of contributing behavior likely does not guarantee another (García-Mainar & Marcuello, 2007; Jones, 2006). I therefore seek to understand those factors that are associated with added engagement.

I expect that of the independent variables of interest, recreational commitment holds the greatest likelihood of driving cumulative contributions. The expectation comes from core propositions of leisure specialization theory mentioned above; namely, that the more time and resources individuals commit to an activity, the more central it becomes to their identities and lives (Bryan, 1977). The more central the activity in recreationists’ lives, the more invested they become in its resource dimensions (Ditton et al., 1992). In addition, research shows that trust often fosters greater organizational engagement, which is in turn positively related to higher degrees of giving (Liu, 2019; Sargeant et al., 2006). The same likely holds when it comes to cumulative contributions.

Cumulative contributions hypothesis: The higher a recreationist’s commitment to a recreational pursuit, and the more a recreationist trusts in a civic recreation organization’s work, the more likely they are to support a civic recreation organization through cumulative contributions.

Civic Recreation in North American Climbing and Utah’s Wasatch Front

The preceding expectations are examined in this paper in the context of North American climbing. Reflecting the growth of civic recreation organizations more broadly, recent decades have witnessed the proliferation of voluntary, coordinated initiatives among climbers. Commonly
referred to as “local climbing organizations,” such initiatives typically take the form of 501(c)(3) nonprofits, although they vary in structure and capacity (Maples et al., 2018). At the time of this writing, over 120 local climbing organizations are active in the U.S. (Access Fund, 2019). Some are organized around a metropolitan area, such as Montana’s Helena Climbers’ Coalition, others by a region, such as the Upstate New York Climbers Access Coalition, and still others around a climbing area, such as West Virginia’s New River Alliance of Climbers.

The origins of most local climbing organizations (and the emergence of North American climbing advocacy organizations in general) stem from efforts to maintain access to climbing resources—often in the face of access curtailment or loss. A curtailment of resource access most often takes the form of restrictive land management policies, while loss may come from private purchase of the area for development purposes or resource destruction from activities, such as mining. Thus, local climbing organization advocacy includes providing a representative voice in communications with other stakeholders and recreational user groups, land managers, and policy makers, generally, with the intent of securing and maintaining access to climbing areas and advocating for climbing-conducive management policies (Carter et al., 2020).

In addition to advocacy focused on resource access, contemporary local climbing organizations’ activities tend to focus heavily on natural resource and recreational infrastructure stewardship (Carter, 2020; Maples et al., 2018; Schild, 2019). These include activities such as mitigating visitor impact on natural resource environments, educating climbers of responsible practices, and constructing and caring for climbing infrastructure. Within the realm of rock climbing, an increasingly important local climbing organization responsibility is the maintenance of the fixed hardware (e.g., climbing bolts) that climbers entrust their lives to, including the replacement of aging or damaged hardware.

This paper analyzes survey data regarding climbers’ contributions to the Salt Lake Climbers Alliance (SLCA), a local climbing organization serving climbers along Utah’s Wasatch Front. I approach the SLCA as a discrete case within the wider phenomenon of civic recreation stewardship and advocacy. The SLCA’s mission is to “serve as the unified voice of all climbers in the greater Wasatch region, engaging as an advocate to protect outdoor climbing access and as a steward to maintain sustainable climbing resources in the Wasatch and surrounding regions” (SLCA, n.d.). As indicated by this mission, the SLCA’s core functions mirror those of local climbing organizations, more broadly, including environmental and natural resource stewardship in the form of trail building and infrastructure improvements that reduce the environmental impact of climbers and climbing on the areas where the activity is practiced. The SLCA also serves as the effective land manager of a climbing area known as the Gate Buttress, in Little Cottonwood Canyon, by way of a recreational lease with the Church of Jesus Christ of Latter-day Saints (aka “LDS Church”), which owns the property.

The Salt Lake area is generally recognized as a “hub” of outdoor recreation, with a history of climbing activity, a relatively large and established climbing community, and a local outdoor industry presence to match—factors to remember when considering the generalizability of this study’s findings. The SLCA is one of the more developed and professionalized local climbing organizations in the country, with a full-time staff executive director and additional part-time paid personnel (when most local climbing organizations remain entirely volunteer-run; Maples et al., 2018). Importantly, most of the climbing in the Wasatch area (the SLCA’s geographic service domain) is located on United States Forest Service (USFS) land. As such, although the SLCA engages in considerable advocacy with USFS managers and rangers over land management regulations, the region does not face the same resource and access threats from private development and resource extraction that are more prevalent in other parts of the country (Maples et al., 2018). One implication of this is that the SLCA tends to not have as many high-profile resource threats that create a sense of urgency among climbers around the need to support the organization—a consideration I return to when discussing study results.
At the time of the survey (2018), the organization claimed roughly 1,500 members. Climbers became members in one of two ways. They could sign up through the SLCA's website, which included paying a $15 membership fee. Alternatively, they could sign up for SLCA membership when securing a membership with the independent national climbing advocacy organization Access Fund, by paying the $15 SLCA membership fee in addition to the Access Fund membership dues. Volunteer opportunities with the SLCA in the year preceding the survey included “Adopt-A-Crag” days spent improving trails and other climbing infrastructure, working films and other fundraising events, and serving on one of the organization's committees (policy and conservation committee, events committee, or communications committee).

**Study Design**

Study data were collected in collaboration with the SLCA through an online survey of Utah climbers in the spring of 2019. The study can be considered a type of “insider” research because I (as the researcher) am a climber of over a decade, an SLCA member, and a volunteer. Arguably, my personal experiences with climbing and familiarity in the local climbing community likely increase the validity and credibility of the study methods and interpretation of study findings (de Volo & Schatz, 2004)—particularly when it comes to a context as shaped by informal norms and traditions as a climbing community. It's also possible that they shape my perceptions of the SLCA's work and impact—a potentiality I've attempted to adjust for through critical reflection and transparent articulation of assumptions and interpretations.

**Data Collection**

The SLCA distributed an open survey URL through email, social media posts (Facebook, Twitter, and Instagram), and by encouraging nonprofit and industry partners to do the same. Survey participation was incentivized by the opportunity to enter a drawing for a free item of climbing gear. There are notable limitations with this research approach. First, lacking credible estimates of population size and characteristics, generalizations from study findings should be made with caution, as the representativeness of the sample is unknown (Etikan et al., 2016). Furthermore, the distribution method means that the sample is limited to those climbers exposed and receptive to the SLCA or one of its partner organizations. The survey sample is described in the Results section and I return to the sample's limitations in the Discussion.

**Construct Measurement**

Climbers' contributions to local advocacy and stewardship were assessed through three reported contributing behaviors: membership, donations, and volunteering. The measures were self-reported responses to questions asking if respondents: (1) held SLCA membership at some point in 2018, (2) volunteered with the SLCA in 2018, and (3) donated to the SLCA in 2018 (beyond membership fees). From the resulting data, I constructed a fourth dependent variable, “cumulative contributions,” to capture climbers' propensity to contribute (or not) in multiple ways. The resulting measure ranges from 0 (respondent reported no contributing behaviors) to 3 (reported all three contributing behaviors).

The first independent variable of interest is trust in a civic recreation organization. It is worth noting that a considerable literature debates how trust is best measured in survey research (e.g., Ermisch et al., 2009). For example, generalized trust (trust one has in other members of society, generally) may be best measured through validated multidimensional psychometric measures (Gillespie, 2012). My approach was shaped by both theoretical and practical considerations. Theoretically, my intent was to measure specific trust—trust that is specific to the organization (the SLCA) and function (fulfilment of the SLCA's mission) in question. Practically, I strove to balance the survey space afforded to construct measurement, the pragmatic information needs
of our organizational partner, and a desire to not deter or fatigue respondents. I thus chose to measure trust through a simple and direct question: “To what extent do you trust the SLCA to pursue your interests as a climber?” The provided response options were: “not at all,” “a little,” and “a lot.”

The second independent variable of interest was climbers’ relative commitments to the pursuit of climbing, assessed through questions regarding the frequency and length with which they participated in climbing. The survey asked respondents how frequently they climbed using the response options of “once a month or less,” “2-3 times a month,” “roughly once a week,” “roughly twice a week,” and “more than twice a week.” A second measure, labeled “climbing tenure” asked respondents how long they had been climbing. Response options were “under 1 year,” “1-2 years,” “3-5 years,” “6-10 years,” “11-20 years,” and “over 20 years.”

The final independent variable of interest was whether recreationists expect direct benefits from a civic recreation organization’s work. I used two indirect measures of such an expectation. The first is whether respondents lived within or immediately adjacent to the SLCA’s defined geographic area of service, reflected by a constructed “Central Wasatch” measure. Using counties as indicators, the Central Wasatch variable reflects respondents residing in the Davis, Morgan, Salt Lake, Summit, Utah, and Wasatch Counties. The second is whether a respondent primarily (or exclusively) climbed in indoor climbing gyms. Because local climbing organizations focus on stewardship and advocacy related to outdoor climbing, “gym climbers” likely expect fewer direct benefits from their initiatives. To identify gym climbers, I draw on a survey question that asked climbers to select the type of climber that they “most think of themselves as.” Of the available options, “gym climber” was the only indicative of exclusively-indoor climbing, as the other types (boulderers, top rope climbers, sport climbers, and traditional climbers) reflected climbing which takes place in outdoor settings.

Of course, recreationists are only likely to contribute to a civic recreation organization if they are aware of its presence and the work that it does (McDowell et al., 2013). I thus include a measure meant to capture respondents’ familiarity with a civic recreation organization’s initiatives. Consistent with existing research on familiarity in nonprofit organization contexts (Farwell et al., 2019; McDougle, 2014), I opted for a simple and direct measure of climbers’ self-reported, perceived familiarity with the SLCA’s work. The question asked: “How informed do you feel regarding the SLCA’s activities?” The response options were: “not at all informed,” “somewhat informed,” and “very informed.”

I also collected data on demographic characteristics that research indicates are correlated with voluntary contributions (Snipes & Oswald, 2010; Wiepking & Bekkers, 2012), including age, household income, education level, and gender (see Table 1 for measurement details). The survey also asked respondents to indicate their political affiliation, with the options being “Republican,” “Independent, leaning Republican,” “Independent,” “Independent, leaning Democratic,” and “Democratic.” I label the resulting variable “left-leaning politics,” as higher values were assigned to the Democratic end of the scale.

Data Analysis

I used multiple regression to examine how the independent variables of interest were associated with climbers’ contributions to the SLCA, while holding other factors (e.g., demographic characteristics) constant. The dependent variables of the first three analyses are dichotomous, as respondents reported being/not being SLCA members, donating/not donating, and volunteering/not volunteering. For these analyses, I used logistic regression. The dependent variable of a fourth analysis is an additive “cumulative contributions” measure, ranging from 0 (no contributions) to 3 (all three contributing behaviors). Following other analyses examining voluntary contributions to nonprofits (e.g., Jones, 2006; Nicholson-Crotty, 2009), I use a Heckman model (1976). Modeling decisions are discussed further in the following Results section.
Results

Study results are presented in four parts. The survey response is discussed first, followed by an overview of the sample characteristics. A third section reports descriptive survey results. Finally, the fourth section presents analysis results.

Survey Response

A total of 958 completed surveys were collected. Although survey distribution methods leave the number of people that saw survey invitations but did not respond unknown, some context can be provided regarding email distribution. The SLCA sent the survey invitation to 18,673 individuals. An email distribution report shows that 2,223 individuals opened the email, 414 of whom clicked the survey link. The resulting response rates (12% of emails opened, 19% of which led to survey access) are low, but comparable to similar research involving organizational partners (Maples et al., 2017; Mueller & Graefe, 2018). The response can also be considered in relation to SLCA membership. Based on survey results, 528 self-identified members responded to the survey, representing 35% of the roughly 1,500 members reported by the SLCA at the time.

Sample Characteristics

Sample characteristics are provided in Table 1, however, due to the convenience sample frame further details are offered here. The sample skewed younger (modal age 26–35 years; 42% of respondents), male (64%), white (90%), affluent (modal household income $125,000 and higher; 24%), and politically liberal (64% identified as Democrats or Independent, leaning Democrat). Respondents tended to be experienced climbers: 13% had been climbing 2 years or less, while 42% had climbed for 11 years or more. They also tended to be avid climbers: almost half (46%) reported climbing more than twice a week, 27% climbed roughly twice a week, and 27% climbed once a week or less.

Descriptive Results

Descriptive survey results provide a snapshot of the surveyed climbers’ self-reported contributions to the SLCA in 2018. Just over half of survey respondents (55%) reported being SLCA members and almost one third (32%) reported donating beyond payment of membership fees. Just under one in five (19%) reported volunteering. When each respondent’s reported membership, donating, and volunteering behaviors are summed, the mean resulting “combined contributions” value is 1.07; in other words, the average number of contributing behaviors exhibited by respondents is one (out of up to three potential behaviors). Descriptive statistics for all variables are presented in Table 1.

Membership, Donations, and Volunteering Analysis Results

The first set of analysis results are presented in Table 2. The first three models report logistic regression results, with the dichotomous dependent variables SLCA membership, donations, and volunteering (in order). The results are presented in regression coefficients. It is worth noting that the number of observations in all models drops considerably from the overall survey n of 958, due to missing data for one or more of the included measures.2

2Alternative model specifications also warrant mention. First, logic suggests possible interactions between some of the independent variables, and between the recreational commitment variables, in particular; for example, the possibility that the impacts of a longer tenure on a recreationist’s internalization of an activity (and thereby investment in addressing its challenges) are heightened when combined with frequent practice (Tsaur & Liang, 2008). Specifications testing such interactions failed to improve upon (i.e., explain more) than the presented findings. Second, because of the increased likelihood of endogeneity in the case of the “familiarity” variable, alternative models were run omitting the measure. Although there were some variations from the reported findings (e.g., the climbing frequency relationship was statistically significant in the first model), the more conservative specifications with the measure included are reported here due to the strong theoretical relationship between familiarity with a nonprofit organization and contributing to it.
The study’s first hypothesis posited that the more a recreationist trusts a civic recreation organization to represent their interests, the more likely they are to support it through membership, volunteering, or donations. Analysis results support the hypothesis, as indicated by positive and statistically significant coefficients (p<0.05). On average, the higher a survey respondent’s expressed trust in the SLCA, the more likely they are to report being an SLCA member, donating to the SLCA, or volunteering with the SLCA. It is worth briefly highlighting here that the study design and results are correlational, and some of the identified relationships may thus be endogenous—especially between trust and volunteering; nonetheless, the finding provides clear support for the hypothesis.

The second hypothesis posited that a recreationist’s commitment to a recreational activity, measured as their frequency of practice and tenure, is likely positively associated with civic recreation organization membership, donations, or volunteering. The results are mixed, but overall supportive of the expectation. Findings suggest that the more frequently survey respondents report climbing, the more likely they are to report donating to or volunteering with the SLCA. Similarly, the longer respondents’ reported climbing tenures, the more likely they are to report being SLCA members and volunteering with the SLCA. The relationship between climbing frequency and membership is non-significant (p<0.05), as is that between climbing tenure and donations.

Table 1
Descriptive Findings

<table>
<thead>
<tr>
<th>Construct</th>
<th>Obs.</th>
<th>Min</th>
<th>Max</th>
<th>Mean* (SD)</th>
<th>Operationalization</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Membership</td>
<td>955</td>
<td>0</td>
<td>1</td>
<td>55% (0.50)</td>
<td>Not a member = 0; member = 1</td>
</tr>
<tr>
<td>Donation</td>
<td>956</td>
<td>0</td>
<td>1</td>
<td>32% (0.47)</td>
<td>Did not donate = 0; donated = 1</td>
</tr>
<tr>
<td>Volunteering</td>
<td>955</td>
<td>0</td>
<td>1</td>
<td>19% (0.39)</td>
<td>Did not volunteer = 0; volunteered = 1</td>
</tr>
<tr>
<td>Cumulative contributions</td>
<td>953</td>
<td>0</td>
<td>3</td>
<td>1.07 (0.97)</td>
<td>Sum of membership, donation, and volunteering</td>
</tr>
<tr>
<td><strong>Independent variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trust</td>
<td>950</td>
<td>1</td>
<td>3</td>
<td>2.72 (0.53)</td>
<td>Do not trust at all = 1...trust a lot = 3</td>
</tr>
<tr>
<td>Climbing frequency</td>
<td>958</td>
<td>1</td>
<td>5</td>
<td>4.05 (1.17)</td>
<td>Once a month or less = 1...more than twice a week = 5</td>
</tr>
<tr>
<td>Climbing tenure</td>
<td>958</td>
<td>1</td>
<td>6</td>
<td>4.14 (1.39)</td>
<td>Under 1 year = 1...over 20 years = 6</td>
</tr>
<tr>
<td>Familiarity</td>
<td>951</td>
<td>1</td>
<td>3</td>
<td>2.20 (0.61)</td>
<td>Not at all informed = 1...very informed = 3</td>
</tr>
<tr>
<td>Gym climber</td>
<td>900</td>
<td>0</td>
<td>1</td>
<td>27% (0.44)</td>
<td>Do not identify as gym climber = 0; identify as gym climber = 1</td>
</tr>
<tr>
<td>Central Wasatch</td>
<td>943</td>
<td>0</td>
<td>1</td>
<td>94% (0.23)</td>
<td>Live outside of Central Wasatch = 0; live in Central Wasatch = 1</td>
</tr>
<tr>
<td>Household income</td>
<td>908</td>
<td>1</td>
<td>6</td>
<td>3.72 (1.72)</td>
<td>Under $25K = 1...$125K or more = 6</td>
</tr>
<tr>
<td>Education level</td>
<td>949</td>
<td>1</td>
<td>7</td>
<td>4.98 (1.25)</td>
<td>Less than high school = 1...Advanced graduate degree or PhD = 7</td>
</tr>
<tr>
<td>Left-leaning politics</td>
<td>931</td>
<td>1</td>
<td>5</td>
<td>3.79 (1.17)</td>
<td>Republican = 1...Democrat = 5</td>
</tr>
<tr>
<td>Age</td>
<td>953</td>
<td>1</td>
<td>7</td>
<td>3.52 (1.19)</td>
<td>Under 16 years old = 1...over 65 = 7</td>
</tr>
<tr>
<td>Man</td>
<td>955</td>
<td>0</td>
<td>1</td>
<td>64% (0.48)</td>
<td>Woman or nonbinary = 0; man = 1</td>
</tr>
</tbody>
</table>

Note: * = the percent of responses with a value of “1” are shown for dichotomous measures, in lieu of the mean value
The third hypothesis posited that recreationists who are most likely to experience tangible benefits from the work of a civic recreation organization are more likely to support it through membership or donations. The results are again mixed. The first indirect measure used to assess the expectation—whether respondents self-identified as gym climbers—assumed that climbers who primarily (or exclusively) climb indoors expect few direct benefits from local stewardship and advocacy related to outdoor climbing areas. If the results supported the hypothesis, gym climbers would be less likely to report SLCA membership or donations when compared to climbers who do not think of themselves first and foremost as gym climbers. However, the only reported contributing behavior for which a statistically significant relationship was indicated was volunteering; the behavior for which I posited expected tangible benefits hold no impact. The results suggest those climbers that identify as gym climbers are less likely to volunteer with the SLCA.

The findings pertaining to several control variables are also worth noting. First (and unsurprisingly) familiarity with the SLCA’s activities is positively related to all three reported contributing behaviors. Second, household income seems related to only reported donations— as one might expect, the higher one’s reported household income, the higher the likelihood that a respondent reported donating to the SLCA. Education level is positively correlated with being an

### Table 2
Logistic Regression Results Depicting Factors Associated with Climbers’ Contributions to Local Advocacy and Stewardship

<table>
<thead>
<tr>
<th></th>
<th>Membership</th>
<th>Donations</th>
<th>Volunteering</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust</td>
<td>1.00 (0.19)***</td>
<td>0.46 (0.21)**</td>
<td>0.75 (0.28)***</td>
</tr>
<tr>
<td>Climbing frequency</td>
<td>0.14 (0.07) *</td>
<td>0.32 (0.08)***</td>
<td>0.22 (0.10)***</td>
</tr>
<tr>
<td>Climbing tenure</td>
<td>0.26 (0.08)***</td>
<td>-0.02 (0.08)</td>
<td>0.32 (0.10)***</td>
</tr>
<tr>
<td>Central Wasatch</td>
<td>0.88 (0.38)**</td>
<td>1.19 (0.55)**</td>
<td>1.48 (0.76) *</td>
</tr>
<tr>
<td>Gym climber</td>
<td>-0.07 (0.20)</td>
<td>-0.11 (0.20)</td>
<td>-0.70 (0.27)***</td>
</tr>
<tr>
<td>Familiarity</td>
<td>0.88 (0.15)***</td>
<td>0.74 (0.15)***</td>
<td>1.24 (0.18)***</td>
</tr>
<tr>
<td>Household income</td>
<td>0.10 (0.05) *</td>
<td>0.14 (0.05)**</td>
<td>-0.09 (0.07)</td>
</tr>
<tr>
<td>Education level</td>
<td>0.17 (0.07) **</td>
<td>0.02 (0.07)</td>
<td>-0.03 (0.09)</td>
</tr>
<tr>
<td>Left leaning politics</td>
<td>0.26 (0.07)***</td>
<td>0.16 (0.08)**</td>
<td>0.12 (0.09)</td>
</tr>
<tr>
<td>Age</td>
<td>0.01 (0.09)</td>
<td>0.19 (0.09)**</td>
<td>-0.16 (0.11)</td>
</tr>
<tr>
<td>Man</td>
<td>-0.15 (0.18)</td>
<td>-0.40 (0.18)**</td>
<td>0.27 (0.22)</td>
</tr>
<tr>
<td>Constant</td>
<td>-7.15 (0.77)</td>
<td>-6.54 (0.87)</td>
<td>-7.63 (1.15)***</td>
</tr>
</tbody>
</table>

χ²  
207.64***  
117.56***  
128.05***

Pseudo R²  
0.19  
0.11  
0.16

n  
811  
812  
811

Notes: Logit coefficients listed with standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.10
Respondents were more likely to report being SLCA members and/or donating to the SLCA the farther to the Democratic end of the spectrum their reported political affiliation leaned. Finally, reported donating was positively associated with age and negatively associated with identifying as a man.

**Cumulative Contributions Analysis Results**

The final hypothesis pertained to cumulative civic recreation contributions. Table 3 presents the results of a Heckman two-step analysis (1976), which accounts for the probability of recreationists making any one of the three contributions (step one) when modeling their cumulative contributions (step two). The cumulative contributions (step two) analysis is an ordered probit model, due to the ordinal dependent variable.

Heckman selection is typically used where two decision processes differ (i.e., dependent variables are distinctly influenced by perhaps different independent variables). Such is not the case here, as both theory and a statistically nonsignificant Wald test of independence statistic suggest that the predictor variables are similarly applicable to both the decision to contribute and cumulative contributions. As a robustness check on the reported results, I ran alternative ordered logit and Tobit models, with no substantive differences in the findings. Because the Heckman model may more accurately estimate cumulative contributions by leveraging information on recreationists that chose not to contribute (Nicholson-Crotty, 2009), I preferred the Heckman analysis.

The cumulative contribution hypothesis posited that the higher a recreationist’s recreational commitment (as measured as their frequency of practice and tenure) and the more a recreationist trusts an organization, the more likely they are to support the organization through cumulative contributions. The results supported the expectation, suggesting the higher a survey respondent’s reported trust in the SLCA, the more contribution types they were likely to simultaneously report. Similarly, the more frequently a respondent reported practicing and the longer recreational tenure they claimed, the more contribution types they were likely to report. I consider these results in the study’s broader context in the following Discussion.

**Discussion**

I set out in this paper to better understand what drives contributions to civic recreation, as a relatively new and growing form of local environmental and recreational collective action (Schild, 2018, 2019), by examining voluntary contributions to a local climbing organization located on Utah’s Wasatch Front. The most robust finding to emerge from the analysis is that the trust that recreationists express regarding a civic recreation organization seem to matter a great deal in explaining their reported contributing behaviors. The finding supports distinct arguments from the civic recreation and broader voluntary contributions literatures. In the realm of civic recreation, it supports the idea that organizational connections are important elements bridging recreationists’ environmental civic motivations and civic acts (Lu & Schuett, 2014). In the realm of broader voluntary giving, it adds further evidence to an established literature on the centrality of trust in fostering contributions (Passey & Tonkiss, 2000; Sargeant & Lee, 2004).

Another noteworthy finding is that recreational commitment also matters for voluntary contributions in civic recreation contexts, although the results raise as many questions as they answer. The Heckman selection analysis suggested that longer climbing tenures and more frequent climbing may spur contributions, generally speaking, and are positively associated with cumulative contributions among climbers that choose to contribute. Together, the results support the idea that recreational commitment encourages interest in addressing the environmental, policy, and related challenges facing a recreational community (Scott & Shafer, 2001; Tsaur & Liang, 2008). However, I see no evident theoretical pattern in the inconsistent relationships.
that reported tenures and frequencies shared with different contribution types. The results thus raise questions such as why, for example, tenure might matter for civic recreation organization membership and volunteering but not financial donations. Such questions offer promising lines of inquiry extending the study of recreational commitment into the realm of civic recreation.

Finally, the application of social exchange theory deserves discussion. I used residence in the Central Wasatch and self-identification as a gym climber to signal that a climber might anticipate more and fewer tangible benefits from the SLCA’s civic recreation activities, respectively, thereby suggesting that Central Wasatch residents were more likely to contribute to the SLCA via membership and donations. Gym climbers, in contrast, I expected were less likely to become members or donate. While the residence measure supported the hypothesis, gym climber identities only seemed to matter in regard to contributions through volunteering, as results suggested that gym climbers were less likely to report volunteering than other respondents.

There are a few interpretations of these results. First, the “gym climber” measure could be flawed if my assumptions regarding self-identified gym climbers’ expectations are inaccurate. Second, it could be that identification as a “gym climber” does not preclude outside climbing (or

Table 3
Ordered Probit Heckman Selection Model Results Depicting Factors Associated with Cumulative Contributions to Local Advocacy and Stewardship

<table>
<thead>
<tr>
<th></th>
<th>Coefficient (S.E.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cumulative contributions (step two)</td>
<td></td>
</tr>
<tr>
<td>Trust</td>
<td>0.53 (0.14) ***</td>
</tr>
<tr>
<td>Frequency</td>
<td>0.19 (0.05) ***</td>
</tr>
<tr>
<td>Tenure</td>
<td>0.12 (0.05) **</td>
</tr>
<tr>
<td>Central Wasatch</td>
<td>1.31 (0.40) ***</td>
</tr>
<tr>
<td>Gym climber</td>
<td>-0.22 (0.12) *</td>
</tr>
<tr>
<td>Familiarity</td>
<td>0.73 (0.09) ***</td>
</tr>
<tr>
<td>Household income</td>
<td>0.04 (0.03)</td>
</tr>
<tr>
<td>Education level</td>
<td>-0.03 (0.05)</td>
</tr>
<tr>
<td>Left leaning politics</td>
<td>0.15 (0.05) ***</td>
</tr>
<tr>
<td>Age</td>
<td>0.01 (0.05)</td>
</tr>
<tr>
<td>Contribute (step one)</td>
<td></td>
</tr>
<tr>
<td>Trust</td>
<td>0.53 (0.10) ***</td>
</tr>
<tr>
<td>Frequency</td>
<td>0.13 (0.04) ***</td>
</tr>
<tr>
<td>Tenure</td>
<td>0.11 (0.05) **</td>
</tr>
<tr>
<td>Central Wasatch</td>
<td>0.53 (0.21) **</td>
</tr>
<tr>
<td>Gym climber</td>
<td>-0.06 (0.12)</td>
</tr>
<tr>
<td>Familiarity</td>
<td>0.61 (0.09) ***</td>
</tr>
<tr>
<td>Household income</td>
<td>0.05 (0.03)</td>
</tr>
<tr>
<td>Education level</td>
<td>0.11 (0.04) **</td>
</tr>
<tr>
<td>Left leaning politics</td>
<td>0.11 (0.04) **</td>
</tr>
<tr>
<td>Age</td>
<td>0.03 (0.06)</td>
</tr>
<tr>
<td>Man</td>
<td>-0.14 (0.11)</td>
</tr>
<tr>
<td>Constant</td>
<td>-3.84 (0.42) ***</td>
</tr>
</tbody>
</table>

n = 809
Censored n = 277
Wald χ² = 184.97***
Log likelihood = -895.44
Wald test of independent equations = 2.45; p = 0.2

Notes: Coefficients listed with standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.10
a perceived benefit from contributing to an outdoor climbing focused organization). Third, the results could be an indication that tangible benefits matter less than I hypothesized; a finding that would be consistent with research in more general charitable giving contexts (e.g., Sargeant et al., 2006). Fourth, it could be that other social exchange dynamics are at play. Specifically, social exchange theory posits that individuals may contribute for benefits beyond those that are tangible in nature, including social and relational benefits (MacMillan et al., 2005). Thus, it could be that self-identified gym climbers become members and donate to the SLCA for the emotional and psychological benefits that an association with the organization provides. Notably, the explanation is consistent with the internalization that leisure studies suggest is a hallmark of recreational participation among devoted practitioners’ recreational progressions (Tsaur & Liang, 2008).

Finally, it is worth considering what these findings suggest for a possible role of civic recreation organizations in fostering more general “environmental citizenship” (aka “civic environmentalism”; John, 1994). To the extent that engagement with a local climbing organization (or any other type of civic recreation organization) helps engender a concern for/interest in broader environmental concerns, this study’s results suggest that recreational commitment and trust in an individual organization could be links in a motivational chain that leads to constructive environmental action. However, such a conclusion is well beyond the scope of this analysis, and the suggestion makes for a “tepid” hypothesis, at best. As noted by Schild (2019, 641), while some civic recreation organizations express values reflective of general conservation and environmentalism, their activities are “more narrowly focused on the recreational resource itself...to provide a recreational resource and represent a particular user group.” As such, the public benefits of civic recreation, while certainly desirable, are most likely positive externalities of recreational users’ attempts to secure and care for recreational “club goods” (Berge, 2006).

Limitations and Caveats

These findings should be considered with an appreciation for the limitations inherent to the study’s design, chief among which are survey distribution method and sample. The survey reached only climbers that received SLCA communications—either directly, via email or social media, or indirectly, through a partner entity. For this reason, the population in question may be best thought of as civic recreation “attentive” climbers. What motivates or prevents less-attentive recreationists from contributing to stewardship and advocacy is arguably an even more important question, as is what leads recreationists to be more or less attentive to civic recreation organizations. Such questions are beyond the scope of this paper and deserve investigation.

The study’s measurement methods also warrant discussion. The results reflect climbers’ self-reported contributions. Thus, the results are subject to (unknown) error introduced by climbers’ difficulty in accurately remembering their contributions, not to mention inflation of reported contributions out of social desirability tendencies. A comparison of these results with those obtained through more objective measurement of contributing behavior can help assess the extent to which self-reporting skews these findings and offer a promising avenue for better understanding what drives voluntary contributions to civic recreation, generally. Finally, as mentioned earlier, the relationship between trust and contributions is likely (to some degree) endogenous; especially if, for example, volunteering with an organization engenders further trust. Future research could benefit from more directly investigating causality, through qualitative research and other research designs that are more robust to the effects of endogeneity. These caveats notwithstanding, this study offers valuable insights into voluntary contributions in civic recreation contexts, as discussed above, as well as practical insights for civic recreation organizations, which I discuss in the following conclusion.
Conclusion

This study investigated what drives everyday recreational participants to contribute to a growing form of voluntary environmental collective action known as “civic recreation organizations” (Schild, 2019). Blurring the lines between voluntary sport clubs, interest groups, and resource management, civic recreation organizations’ promise may extend beyond concentrated recreational benefits. Acknowledging the important caveats discussed above, their work can generate positive impacts for other user groups, stakeholders, land managers, and even the general public. Thus, understanding what motivates voluntary civic recreation contributions is central to supporting both their concentrated benefits and broader positive externalities (Lu & Schuett, 2014; Schild, 2018).

While the discussion above focused on the scholarly insights this study’s findings provide, I end by noting their practical implications. Arguably most important is the evidence that recreationists’ relationship with a civic recreation organization likely had direct impacts on their willingness to contribute through membership, donations, or volunteering. To the extent a sense of trust in a civic recreation organization fosters a greater willingness to contribute (as this study’s findings suggest is the case), civic recreation leaders may see positive gains by focusing on organizational operations characterized by transparent and credible communications and interactions with relevant recreational interests. This is perhaps especially the case for a civic recreation organization such as the SLCA that operates in a context where the need is great, the recreational community relatively large, and there is not an obvious and urgent focusing event to motivate contributions. In such cases, everyday recreationists must be able to trust that their contributions will be effectively leveraged in a responsible manner, especially since the consequences (i.e., payoff) of their contributions may not be immediately apparent.

Finally, this study offers lessons specific to the SLCA, as the civic recreation organization upon which this study focused. Mirroring the discussion above, the first of these is the importance of cultivating relationships of trust with everyday climbers for generating different and multiple types of contributions from their constituents. The fact that contributions seem positively related to recreational commitment and negatively associated with identifying as a gym climber also warrant attention from the organization. Likely much of the future growth in climbing will occur among more “casual” participants that overwhelmingly learn to climb indoors (Carter & Allured, 2022); thus, to the extent SLCA leaders wish to develop their grassroots contributions alongside the sport’s growth, it will be necessary for them to explore how to build relationships with these more casual climbers that have less of an obvious “stake” in the organization’s work. Of course, such relationships will likely be more fruitful when they are characterized by trust. Thus, the organization may be well advised to focus on transparent practices which project legitimacy to better support the important stewardship and advocacy goals to which it strives.

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References


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