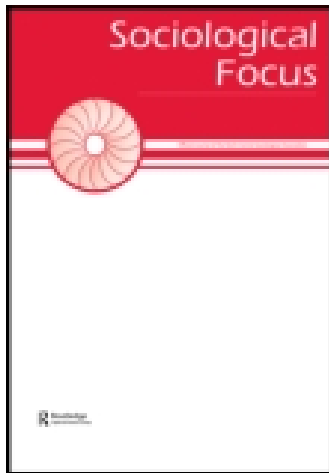


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# Structured Voluntary Youth Activities and Positive Outcomes in Adulthood: An Exploratory Study of Involvement in Scouting and Subjective Well-Being

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This study explores whether youth involvement in Scouting has positive consequences later in life. We examine whether the number of years of participation in Scouting is positively associated with human and social capital and recreational lifestyles in adulthood, and whether these are linked to subjective well-being: relational, emotional, and physical health. To explore this potential relationship, we estimated a structural equation model, analyzing data from a national sample of adult males. We found that youth involvement in Scouting is positively related to subjective well-being indirectly via the positive adult outcomes.

When compared to their peers in other industrialized countries, American adolescents tend to have five to ten percent more discretionary time than their peers do (Larson 2001). This suggests the question: “Are [the] large quantities of discretionary time—40 to 50 percent of waking hours—a developmental asset or liability?” (Larson 2001:163). The answer, of course, depends on what adolescents are doing during their free time. Neuroscientists suggest that the development of the adolescent brain—especially the cerebellum that involves coordination of cognitive processes—is likely to be affected by the type of daily activities engaged in by youth (see, for example, Giedd 2008). Indeed, developmental researchers have found youth participation in structured extracurricular activities generates positive experiences among adolescents, unlike unstructured, unsupervised time spent on watching television, playing computer or video games, and “hanging out” with friends (Eccles et al. 2003; Fredricks and Eccles 2006; Larson, Hansen, and Moneta 2006).

Scholars posit that voluntary youth activities—whether in or out of school—contribute to positive youth development, which, in turn, facilitates educational achievement or psychological adjustment (e.g., Dubas, Snider, and Lerner 1993). Unfortunately, researchers often fail to examine the positive youth development that explains the influence of youth activities (Eccles et al.

2003; Fredricks and Eccles 2006; Glancy, Willits, and Farrell 1986; Larson, Hansen, and Moneta 2006; Mahoney, Schweder, and Stattin 2002). Moreover, scholars tend to examine concurrent or relatively short-term consequences of youth activities, focusing on outcomes primarily in adolescence or, at most, young adulthood (Barber, Eccles, and Stone 2001; Fredricks and Eccles 2008; Mahoney et al. 2002; Marsh and Kleitman 2002; McFarland and Thomas 2006; Youniss, Yates, and Su 1997). Finally, studies in this area have largely relied upon regional data, limiting the generalizability of findings to a particular area (see, however, Marsh and Kleitman 2002; McFarland and Thomas 2006; Youniss, Yates, and Su 1997).

Since these issues require further research, we employ national survey data, originally collected to compare adult males who participated in Scouting during adolescence and those who did not, to see whether youth involvement in Scouting is positively associated with subjective well-being in adulthood due to positive outcomes of the involvement. Scouting is a community-based program of the Boy Scouts of America, one of the nation's largest youth development organizations, but has rarely been studied by social scientists interested in the benefits the organizers claim for participants. In the current study, we apply structural equation modeling to explore whether youth involvement in Scouting has any potential for salutary influence on subjective well-being in adulthood.

## STRUCTURED YOUTH ACTIVITIES, SCOUTING, AND POSITIVE DEVELOPMENT

Prior research shows that structured voluntary youth activities, whether school- or community-based, tend to benefit youth development, while the extent of their influence varies across types and outcomes of activities (Eccles et al. 2003; Larson 2000; Larson, Hansen, and Moneta 2006; Marsh and Kleitman 2002). For example, among extracurricular school activities, involvement in team sports has been found to be positively associated both with drinking alcohol as well as school grades (Eccles and Barber 1999; Fredricks and Eccles 2008), whereas participation in the performing arts, student government, and academic clubs has been linked to educational and occupational outcomes but is not related to risky behaviors (Eccles et al. 2003). In addition, community-based youth groups (e.g., 4-H and the Boy Scouts and Girl Scouts) tend to provide prosocial opportunity structures for participating youth to enhance learning and achievement through non-formal education (Dubas, Snider, and Lerner 1993). Moreover, mentoring in community contexts has been found to contribute to a youth's intellectual, psychological, social, and physical assets (Hamilton et al. 2006; Zarrett et al. 2009).

While it remains understudied as to why youth participating in structured voluntary activities are more likely to experience positive outcomes than those either not participating in such activities or engaging mostly in unstructured activities (e.g., hanging out with friends), the "positive youth development" perspective offers viable explanations (Damon 2004). For example, Lerner et al. (2005) attributed those positive outcomes to characteristics that structured voluntary activities help youth develop, such as life skills and social competence. Positive youth developmental characteristics are likely to help participants achieve personal goals (e.g., good school grades) and engage in social interactions and civic activities during adolescence, as well as contributing to positive outcomes in adulthood.

Among various community-based youth programs, we focus on Scouting to explore whether youth involvement in structured voluntary activities contributes to subjective well-being in

adulthood. In the year-round program for 11- to 17-year-old boys, youth learn (after training and with adult supervision) not only how to organize and lead a unit by working together with other Scouts of different ages as well as adult leaders but also skills for achieving personal goals and physical fitness. Scouting also provides a context for interacting with peers and adults from diverse social groups and trains youth in the responsibilities of citizenship, encouraging them to engage in civic activities and serve their communities. In addition, Scouting encourages youth to develop recreational lifestyles by having youth regularly participate in leisure activities, both indoor (e.g., visiting a museum) and outdoor (e.g., camping).

As a result, it is claimed, participation in Scouting, especially extended involvement, helps youth achieve positive development and adopt recreational lifestyles before transitioning into adulthood. Further, to the extent that the Scouting-generated youth development and lifestyles contribute to positive outcomes in adulthood, such as human and social capital and recreational lifestyles, Scouting is to be positively associated with well-being in adulthood due to these positive outcomes.

### POSITIVE DEVELOPMENT AND SUBJECTIVE WELL-BEING

The construct of well-being reflects a large collection of positive states—physical, relational, and emotional—ranging from objective functional health to subjective perceptions of life quality (George 2010; Huppert and Baylis 2004; Keyes 1998). In this study we focus on three aspects of subjective well-being: physical (self-rated health) as well as relational (self-reported satisfaction with relationships with others) and emotional (positive affect or, alternatively, low negative affect). Specifically, we explore whether the potentially salutary effects of youth participation in Scouting on subjective well-being in adulthood are explained by three factors: recreational lifestyles, human capital, and social capital.

First, a positive link between healthy, recreational lifestyles (e.g., regular exercise and leisure activities) and well-being is well established in numerous studies (Walsh 2011). For example, based on data from a sample of adults in Pittsburgh, Pressman et al. (2009) found that the frequency of “enjoyable” leisure activities (e.g., spending quiet time alone, visiting or eating with others, communing with nature, sports) is positively associated with physical well-being in terms of blood pressure, total cortisol, body mass index, and perceptions of physical function. Frequent leisure activity was also related to higher levels of positive psychosocial states (e.g., vigor, life satisfaction, purpose in life, social support) and lower levels of negative affect (depression, anxiety, and anger). Similarly, Trainor and colleagues’ (2010) study of adolescents showed that structured, social leisure activities (e.g., playing sports or music with others) were positively correlated with self-esteem and life satisfaction, whereas unstructured, unsocial spare-time use (“doing nothing in particular”) was associated with poorer emotional well-being and drug use.

Further, it has been suggested that leisure activities enhance relational as well as physical and emotional well-being because the activities lead participants to experience positive emotions (and a reduction in negative affect) and gain positive identities and self-esteem so they develop social and cultural connections, learning and achieving positive development across the life-span (Iwasaki 2007). Consistent with this study, leisure activities have also been found to enhance subjective well-being because people build relationships of social support as well as feeling positive emotions and acquiring skills and knowledge through participation in the activities (Brajša-Zganec, Merkas, and Sverko 2011).

Second, prior research shows human capital enhances individual well-being. For example, epidemiological studies tend to confirm a positive association between socioeconomic status (SES) and health, attributing the relationship to SES-related resources: “Gradients by income, education, or occupational grade could reflect relatively direct health benefits of having more economic resources (e.g., healthier nutrition, housing, or neighborhood conditions, or less stress due to more resources to cope with daily challenges), . . . , and/or associated psychosocial/behavioral factors, such as health-related behaviors . . . , self-perceived social status . . . , or perceived control” (Braveman et al. 2011:384). Education and, to a lesser extent, income and wealth have been found to be positively associated with emotional as well as physical well-being and negatively with distress as well (Mirowsky and Ross 2003; 2008). While including education, income, and employment status in our model as shown below (Helliwell and Putnam 2004; Huppert and Baylis 2004; Litwin and Shiovitz-Ezra 2011), we focus on basic life skills as a proxy for human capital, including one unique to Scouting, planning for an emergency.

Third, scholars suggest that research on health and well-being includes social conditions that contextualize individual factors, such as human capital. For example, Link and Phelan (1995) argued that social factors, like social support and social networks, as well as SES may be “fundamental causes” of disease because they embody access to important resources. More recently, presenting empirical evidence of their “theory of fundamental causes,” Phelan, Link, and Tehranifar (2010) emphasized the importance not only of SES but also of social capital, such as social connections that protect and promote health and well-being. It is worth noting here that social connections *per se* are not social capital, which is “a resource” that “inheres in the structure of relations” among persons (Coleman 1988:S98).

Indeed, there is a large body of research that finds the link between social capital and well-being to be positive (Huppert and Baylis 2004; Kawachi and Berkman 2001; Litwin and Shiovitz-Ezra 2011). Researchers have sought to explain the effect of social capital on well-being and, more importantly, social capital’s mediation of the relationship between an individual’s sociodemographic characteristics and well-being. For example, Lim and Putnam’s (2010) panel study demonstrated how social capital explains the positive effect of religious involvement on subjective well-being. They found that the participatory and social aspect of religiosity (i.e., regularly attending religious services) was positively associated with life satisfaction because religious involvement led people to build social networks in their congregations, which, in turn, contributed to their subjective well-being, whereas the private and subjective aspect of religiosity was not associated with life satisfaction.

### Working Hypotheses

Based on the above survey of literature and conceptual framework, we propose to explore the effect not simply of youth participation vs. non-participation, but rather the length of Scouting involvement on relational, emotional, and physical well-being in adulthood. Specifically, is the number of years an individual participated in Scouting positively associated with the three types of subjective well-being during adulthood?

Figure 1 shows the expected relationships among the key exogenous variable (years of Scouting) and ten endogenous variables: seven measures of positive developmental characteristics in adulthood—human capital (planning and goal orientation), social capital (personal

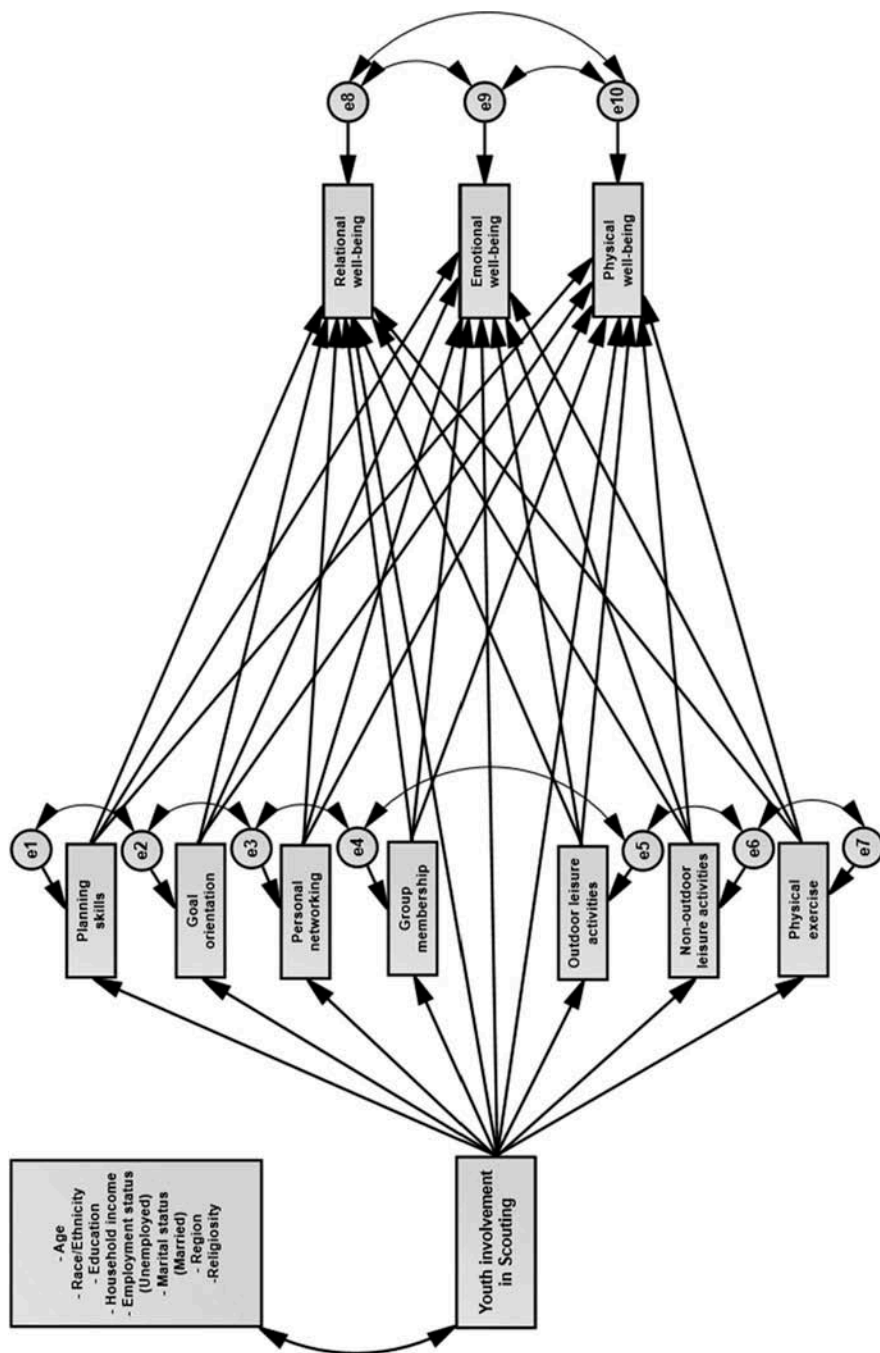


FIGURE 1 A Theoretical Model of Youth Involvement in Scouting, Positive Development, and Subjective Well-being in Adulthood.

networking and group membership), and recreational lifestyle (leisure activities, outdoor and non-outdoor, and physical exercise)—and three measures of subjective well-being. The exogenous variables of individual background characteristics are also included in the model as controls (although their structural effects on the endogenous variables are not shown in the diagram).

Relationships among the variables of positive outcomes in adulthood (human and social capital and recreational lifestyles) are specified as correlations via their residuals ( $e_1$  to  $e_7$ ), while only a part is shown in the diagram for illustrative purposes. Likewise, the ultimate endogenous variables of subjective well-being are modeled to be correlated with one another through their residuals ( $e_8$  to  $e_{10}$ ) to estimate and control for positive associations among relational, emotional, and physical well-being.

In sum, we examine the following working hypotheses.

*Hypothesis 1: (a) Youth involvement in Scouting contributes to an individual's positive developmental outcomes (i.e., human capital, social capital, and recreational lifestyle) in adulthood, and (b) the developmental outcomes are positively associated with the individual's subjective well-being.*

*Hypothesis 2: The positive association of youth involvement in Scouting with subjective well-being in adulthood is due partly to the positive developmental outcomes.*

## DATA

To examine these working hypotheses, we drew data from a national survey of American adult males (aged 18 or older), which was originally conducted to compare adult life among Eagle Scouts and that of Scouts who did not achieve that highest rank (i.e., Eagle Scout) and those who were never Scouts. Thus, before the survey was conducted, in order to identify Boy Scouts among the adult male population in the United States, we added two screening questions to the Gallup Daily tracking poll that interviews 1,000 American adults by telephone 350 days per year (Gallup, Inc. 2010). This nightly polling uses dual-frame random-digit-dialing sampling (which includes cellular as well as landline telephone sampling to reach those in cell-phone-only households) and a multi-call design (up to three callbacks). Once contact is made, an adult household member who most recently had a birthday is interviewed regarding various political, economic, and well-being topics. If necessary, Spanish-language interviews are conducted. The data are first weighted daily by number of adults in the household, number of phone lines in the household, and the respondent's reliance on cell phones, to adjust for any disproportion in selection probabilities; and then weighted to compensate for nonrandom non-response, using targets from the U.S. Census Bureau for age, gender, education, race, ethnicity, and region. The resulting sample represents an estimated 95 percent of all households in the United States.

The two screening questions were run from April 20 to October 4, 2010, with a random sample of 81,434 male adults living in America. Respondents were first asked whether or not they had ever participated in the Boy Scouts of America. If the response was "yes," they were asked if they had achieved the rank of Eagle Scout to ensure proper representation in the final sample of those who achieved the highest rank. The sample included 32,246 former Scouts who agreed to be re-contacted, but 8,456 of them were randomly selected and combined with 5,000 non-Scouts, randomly drawn from the general population, for an interim total sample of

13,456 phone numbers. Since this sample was intended to be large enough to achieve quotas for each group (i.e., Eagle Scouts, other Scouts, and non-Scouts), only 7,069 of them were called between October 12 and November 20, 2010, and 6,556 were working numbers. First, 5,108 of the 6,556 numbers were contacted (contact rate: 77.91 percent); 1,448 were busy, were answered by a machine, or got no answer; second, 2,899 of 5,108 “cooperated” (cooperation rate: 56.75 percent) with 2,209 being either incomplete or refused; third, 2,663 of 2,899 were screened and became eligible, but 236 were screened out due to deafness, language barrier, or other reasons; finally, 2,512 of the eligible completed the survey (completion rate: 94.32 percent). As a result, the target survey’s response rate was 41.70 percent ( $= 77.91 \times 56.75 \times 94.32$  percent).<sup>1</sup>

## Measures

### *Years of Scouting*

The key exogenous concept of youth involvement in Scouting was operationalized in terms of length of involvement: number of years a respondent had been a member of the Boy Scouts before age 18 (henceforth, *years of Scouting*) on a six-point scale (see Appendix A).

### *Human and Social Capital*

The mediating endogenous concepts of human and social capital were measured by two variables each. First, while human capital is usually operationalized by education and income (which we include in our analysis as controls for self-selection bias), we employed two measures of life skills Scouting teaches its members, though not commonly used in research on human capital: *planning skills* and *goal orientation*. The former was measured in terms of whether ( $= 1$ ) or not ( $= 0$ ) a respondent or his household currently had kept a disaster supply kit with emergency supplies (a) in his home, (b) car, or (c) at work and (d) CPR certification or (e) a specific meeting place to reunite in the event he and his family cannot return home or were evacuated. Scores on the five items were summed to create an index, ranging from 0 to 5. On the other hand, we created a scale of goal setting and achievement by averaging scores on three items, each of which combined two survey questions: one asking whether a respondent had a personal, professional, and financial goal in 2009; and, if so, the other whether the goal was achieved (1 = No; 2 = Yes, but not achieved; 3 = Yes, and achieved). Factor analysis of the three items generated a one-factor solution with moderate-to-high loadings (.683, .543, and .414), though interitem reliability was low ( $\alpha = .554$ ).<sup>2</sup>

<sup>1</sup>The total sample consists of 134 Eagle Scouts (5.3%), 853 non-Eagle Scouts (33.9%), and 1,502 non-Scout respondents (59.8%) plus 23 missing cases (1%).

<sup>2</sup>This low alpha might have been due to the fact that the “professional goal” item was not relevant to all respondents. In this paper we conceptually distinguish between the multi-item measures of index and scale. An *index* refers to a composite of items that are likely to be correlated as different measures of the same concept, but an observation of one item (e.g., keeping emergency supplies at home) does not necessarily have us expect to see the occurrence of other items (e.g., being CPR-certified) simultaneously. Such items are not to be modeled as indicators of a common factor, and thus inter-item reliability is not relevant to a composite measure of the items, an index. A *scale*, however, is a composite of items expected to have systematic relationships among themselves because they are indicators of the same latent construct



Second, a respondent's social capital was measured by personal connection and social networks: *personal networking* and *group membership*. The former is a sum of standardized scores on two items about (a) frequency of talking or visiting with his neighbors living in 10 or 20 households closest to him (1 = Never, 2 = Once a year or less, . . . , 7 = About every day) and (b) number of hours spent socially, including time on telephone or e-mail, with friends or family during the day before survey (see Appendix A for response options). The latter is based on an item about number of formal or informal groups or clubs a respondent belonged to, in his area, that meet at least monthly (0 = None, 1 = One, . . . , 6 = Six, 7 = Seven or more).

### *Activities Promoting Health*

A third mediating concept of recreational lifestyles, which Scouting promotes for members' mental and physical health, was measured in terms of participation in leisure activities and physical exercise. First, using 12 items asking whether (= 1) or not (= 0) a respondent regularly participated in or did each of listed activities in his free time, we created an eight-item index of *outdoor* (e.g., fishing, hunting, and snowmobiling/ATV riding) and a four-item index of *non-outdoor leisure activities* (e.g., attending plays/concerts/live theater, playing a musical instrument, and reading books). Second, the item *physical exercise* taps the number of days a respondent exercised for 30 or more minutes during the last seven days prior to the survey (0 = None, 1 = One day, . . . , 6 = Six days, 7 = Every day).

### *Subjective Well-Being*

Next, the ultimate endogenous concept was measured in terms of the three dimensions of subjective well-being: relational, emotional, and physical. First, a scale of *relational well-being* was constructed by summing standardized scores on seven items asking about a respondent's perceived closeness (1 = Not close at all, . . . 5 = Extremely close) of relationships with parents, siblings, children, neighbors, religious community, friends, and coworkers (Keyes 1998); these were loaded on a factor with loadings of .380, .455, .338, .426, .449, .681, and .482, respectively, and an acceptable interitem reliability ( $\alpha = .651$ ).<sup>3</sup> Second, *emotional well-being* was measured by three items asking whether (= 1) or not (= 0) a respondent felt worry, stress, and depression during "a lot of the day" before the survey. The items were clustered on a single factor with loadings of .718, .647, and .371; and a marginally acceptable reliability ( $\alpha = .592$ ) perhaps partly because these were dichotomous measures. To represent well-being, they were reverse-coded and standardized to calculate the mean. Third, *physical well-being* was measured by a single item of self-rated health based on a scale from poor (= 1) to excellent (= 5).

(e.g., a tendency to set and achieve goals, whether personal, professional, or financial). For this reason, we report factor loadings and reliability coefficient (i.e., Cronbach's  $\alpha$ ) only for those items of scale.

<sup>3</sup>The items of close relationships with others are operationally different from those of social capital (i.e., personal networking and group membership) because the well-being of perceived closeness in social relationships is conceptually distinct from the frequency or amount of social interactions and the number of group membership, while they are expected to be positively associated. Similarly, the frequency of physical exercise (recreational lifestyle) is likely to be positively related to self-rated health (physical well-being), but they are not tautological.

### Control Variables

Finally, we control for a respondent's *religiosity* as well as sociodemographic characteristics. It is important to control for religiosity because of the Boy Scouts of America's long held commitment to God and the ample evidence of religiosity's positive associations with social capital and well-being (Hansen, Larson, and Dworkin 2003; Helliwell and Putnam 2004; Litwin and Shiovitz-Ezra 2011). Available in the data was an item measuring the frequency of religious service attendance. A respondent's *age* at the time of the survey was calculated by using his birthday and survey date, whereas race/ethnicity was measured by a dummy variable (1 = *white*, 0 = *nonwhite*).<sup>4</sup> We employed three measures of a respondent's social class (see Appendix A for details): the highest level of *education* completed; annual *household income* in 2009, before taxes; and employment status (1 = *unemployed*, 0 = *employed*, a student, retired, and other). A dummy variable of marital status measures whether he was *married* or not (i.e., single/never married, separated, divorced, widowed, or living with unmarried partner) at the time of survey. Also, to hold a respondent's region of residence constant, three dummy variables were created, *Northeast*, *Midwest*, and *South*, with *West* being an omitted category, which currently shows larger Boy Scout membership than other regions.<sup>5</sup>

### RESEARCH LIMITATIONS

First, while providing various background variables for control purposes, our data, unfortunately, do not allow us to adjust for factors of self-selection into Scouting activities in the first place, such as personality (Fredricks and Eccles 2006; Trainor et al. 2010), family background (Mahoney et al. 2002), and community factors (Hamilton et al. 2006). To the extent that these factors also influence subjective well-being over the life-course, they are likely to confound the relationship between youth involvement in Scouting and subjective well-being in adulthood. For example, those who lived with both biological parents in youth and/or had high-SES parents who provided emotional and instrumental as well as tangible support for their participation in Scouting are likely to participate for a longer period of time than their peers who had non-intact and/or low-SES family backgrounds. The family background factors are also likely to be positively associated with the respondents' subjective well-being in youth and later. Omission of the selection factors in the data analysis is likely to result in overestimating the positive influence of youth involvement in Scouting on subjective well-being in adulthood. Thus, results presented below need to be interpreted with such potential confounding in mind.

At the same time, prior research that held constant various selection factors and previous level of outcome of interest shows that youth activities' influence on the outcome tends to remain significant, though the influence decreases in size (Eccles et al. 2003; Fredricks and Eccles 2006; see also McFarland and Thomas 2006). In addition, the sociodemographic variables included in our model are expected *indirectly* to control for self-selection bias. For instance, to the extent that

<sup>4</sup>Whites tend to report better subjective well-being (e.g., Helliwell and Putnam 2004) than non-whites.

<sup>5</sup>According to the 2010 year-end numbers, the West (294,358; 32.8%) had the largest membership, whereas the Northeast (177,344; 19.7%) had the smallest with the South (231,195; 25.7%) and the Midwest (195,289; 21.7%) falling in-between (Boy Scouts of America, e-mail message to first author, December 20, 2011).

a respondent's SES is an intergenerational proxy of his family SES when he was a Boy Scout and that the effect of the family background on subjective well-being in adulthood is largely indirect via the respondent's current SES, our control for a respondent's own SES is likely to partly control for selection bias associated with family SES in youth.<sup>6</sup> Further, while we could not adjust for personality traits that would affect both years of Scouting and well-being in adulthood, it seems unlikely that any observed relationship between the two is explained by unmeasured inborn traits that would leave nothing to be attributable to the psychosocial influence of youth involvement in Scouting on subjective well-being in adulthood.

Second, while our cross-sectional data are not ideal for testing causal hypotheses, the key exogenous variable, youth involvement in Scouting, is antecedent to the endogenous variables, since it taps involvement before the age of 18, whereas the endogenous variables measure human and social capital, recreational lifestyle, and subjective well-being at age 18 or older; in fact, for many respondents, years after reaching the age of majority. Thus, the hypothesized causation between the exogenous and endogenous variables meets a necessary condition for causality (i.e., time sequence). In addition, the measures of subjective well-being are ultimate endogenous variables, given that they measure the states of well-being at the time of survey (social and physical well-being) or, at most, one day before the survey (emotional well-being).

In sum, given our data constraints (limited controls for self-selection bias and cross-sectional data), we conducted this research as exploratory rather than confirmatory. However, results presented below have the potential to contribute to the literature on structured youth activities, since this is the first study that systematically examines Scouting and its long-term influence based on data from a national sample of adults.

## RESULTS

Using Mplus 7, we applied a manifest-variable structural equation modeling approach to estimate our theoretical model (Figure 1) because the modeling approach enables us to estimate multiple structural equations simultaneously and directly test statistical significance of indirect effects of youth involvement in Scouting on subjective well-being in adulthood via the positive developmental outcomes. Our model is saturated, so no index of model fit is reported. To treat missing data, we employed full-information maximum likelihood, which is asymptotically equivalent to the method of multiple imputation (Enders and Bandalos 2001).

Descriptive statistics of the variables included in our analysis are reported in Appendix A. Respondents were, on average, about 48 years old (47.672); and 73.5 percent white (8.9 percent African American/black, 11.1 percent Hispanic, 1.6 percent Asian, and 4.9 percent other race; not presented in Appendix A). Their average education (3.367) was between some college (= 3) and the level of trade/technical/vocational training (= 4), whereas average income (5.019) fell between \$45,000 and \$55,000. Fewer than seven percent (6.8 percent) were unemployed, and almost 60 percent (58.8 percent) were married (25.5 percent single/never been married, 8.2 percent divorced, 1.3 percent separated, 3.3 percent widowed, and 2.9 percent living with partner; not presented in Appendix A).

<sup>6</sup>Similarly, our inclusion of the race variable is likely to control for another source of selection bias given that white youth are more likely to participate in Scouting than their non-white counterparts.

Appendix A also shows that respondents, on average (2.270), attend religious services on other occasions than major religious holidays (= 2) but less than once a month (= 3). Specifically, 54.4 percent reported they typically attended religious services less than once a month with 9.3 percent reporting once a month, 26.6 percent once a week, and 9.7 percent more than once a week (not presented in Appendix A). This resembles findings from the 2010 Baylor Religion Survey (Baylor University 2010), a national survey, showing 56.4 percent of 761 male adults of the sample ( $n = 1,714$ ) attended religious services less than once a month with 10.3 percent attending once a month, 24.6 percent once a week, and 8.7 percent more than once a week; while the distribution in the same year's General Social Survey data tend to be somewhat skewed toward less frequent attendance, with the corresponding percentages of 60.5, 15.0, 19.5, and 5.1, respectively (Smith, Marsden, and Hout 1972–2010).

Table 1 summarizes results from estimating our model. The first seven two-column sets, (1) to (7), show the effects of sociodemographic controls, religiosity, and years of Scouting on the mediating endogenous variables: first, unstandardized coefficients with standard errors in parentheses and, second, standardized coefficients. All things being equal, older respondents reported lower levels of human capital—planning skills ( $-.006$ ) and goal orientation ( $-.010$ )—and, understandably, leisure activities ( $-.007$  and  $-.003$ ) and physical well-being ( $-.008$ ), but fared better in emotional well-being (.020) than their younger counterparts. Also, the respondent's race (white), marital status (married), and SES (education, household income, and, to a greater extent employment status) tend to be directly associated with subjective well-being in the expected direction, whereas region of residence did not with some exceptions. On the other hand, religiosity was found to be positively associated with relational (.525), emotional (.054), and physical well-being (.038) as well as human and social capital and, in part, recreational lifestyle.

While not directly associated with subjective well-being, years of Scouting was positively associated with all but one (physical exercise) mediating endogenous variables as anticipated (working Hypothesis 1a): that is, the longer youth participate in Scouting, the more likely they are to have positive outcomes in adulthood: human and social capital and recreational lifestyle. Also, the bottom panel of the last three two-column sets, (8) to (10), show that all the positive adult outcomes were, in turn, related to, at least one of the indicators of subjective well-being in the expected direction (working Hypothesis 1b).

Specifically, the measures of human (.338 and .537) and social capital (.586 and .206) and outdoor leisure activities (.081) were found to be positively associated with relational well-being. Next, emotional well-being was associated with the frequency of physical exercise (.063) as well as, in part, with human (.206) and social capital (.106) in the expected direction. It is interesting to see physical exercise ( $\beta = .065$ ) have salutary influence on emotional states as much as goal orientation ( $\beta = .056$ ) and personal networking with other people, including family, friends, and neighbors ( $\beta = .069$ ). Also, leisure activities—outdoor (.020) and non-outdoor (.069)—as well as physical exercise (.077) were found to contribute to physical well-being, while the latter had a larger effect ( $\beta = .173$ ) than the former ( $\beta = .034$  and  $.073$ ) as anticipated. On the other hand, the salutary influence of goal orientation (.184) requires further explanations of how the tendency of setting and achieving goals would have physiologically positive outcomes like the three measures of recreational lifestyle.

**TABLE 1**  
**Estimated Model of Youth Involvement in Scouting and Subjective Well-Being in Adulthood: Unstandardized (Standard Errors) and Standardized Coefficients**

	(1) Planning skills			(2) Goal orientation			(3) Personal networking			(4) Group membership			(5) Outdoor			(6) Non-outdoor			(7) Physical exercise			(8) Relational			(9) Emotional			(10) Physical		
	<i>b</i>	$\beta$	<i>b</i>	$\beta$	<i>b</i>	$\beta$	<i>b</i>	$\beta$	<i>b</i>	$\beta$	<i>b</i>	$\beta$	<i>b</i>	$\beta$	<i>b</i>	$\beta$	<i>b</i>	$\beta$	<i>b</i>	$\beta$	<i>b</i>	$\beta$	<i>b</i>	$\beta$	<i>b</i>	$\beta$	<i>b</i>	$\beta$		
Age	-.006*	-.083*	-.010*	-.278*	-.002	-.024	.001	.007	-.007*	-.067*	-.003*	-.045*	-.001	-.010	.005	.021	.020*	.154*	-.008*	-.139*										
White	-.038	-.014	-.055*	-.039*	-.231*	-.069*	-.071	-.020	.151	.037	-.128*	-.052*	-.013	.002	.365*	.041*	-.085	-.017	.077	.033										
Education	-.032	-.043	.060*	.162*	-.110*	-.125*	.140*	.152*	-.039	-.037	.090*	.138*	-.035	-.025	.021	.009	-.025	-.019	.064*	.103*										
Household income	.032*	.062*	.045*	.175*	.001	.002	.069*	.108*	.027	.037	.043*	.094*	.013	.014	-.071	-.044	.049*	.051*	.058*	.134*										
Unemployed	-.103	-.020	-.256*	-.098*	.047	.008	-.180	-.028	.360*	.048*	-.140	-.030	.307	.031	-.650*	-.039*	-.741*	-.077*	-.340*	-.077*										
Married	.244*	.098*	-.009	-.007	.235*	.079*	-.144*	-.046*	.222*	.062*	-.152*	-.068*	-.311*	-.066*	-.313	-.039	.014	.003	.089*	.042*										
East	-.259*	-.085*	-.039	-.025	-.053	-.015	-.016	-.004	-.221*	-.050*	-.027	-.010	-.409*	-.071*	.443*	.046*	.133	.024	.075	.029										
Midwest	-.251*	-.085*	-.035	-.024	.018	.005	.171*	.047	-.075	-.018	-.005	-.002	-.277*	-.049*	.051	.005	.163	.030	.070	.028										
South	-.074	-.029	-.014	-.011	.010	.003	.033	.010	-.099	-.027	.005	.002	-.272*	-.056*	.309	.038	.289*	.062*	-.047	-.022										
Religiosity	.095*	.136*	.033*	.093*	.047*	.055*	.207*	.236*	.069*	.068*	.015	.024	-.001	-.000	.525*	.234*	.054*	.042*	.038*	.065*										
Years of Scouting	.041*	.071*	.016*	.057*	.044*	.064*	.059*	.082*	.074*	.089*	.033*	.065*	-.029	-.026	-.058	-.032	-.011	-.010	-.009	-.018										
Planning skills			.215*	-.127*	.127*	.062*	.140*	.052*	.156*																					
Goal orientation			.139*	-.014	.074*	.119*	.088*	.041*	.096*																					
Personal networking			.213*			.126*	.118*	.045*	.117*																					
Group membership			.035)			.253*	.089*	.060*	.055*																					
Outdoor leisure activities			.284*			.289*	.041)	.073*	.143*																					
Non-outdoor activities			.065*			.067*	.132*	.074*	.074*																					
Physical exercise			.026)			.030)	.036)	.179*	.074*																					
			.057)			.066)	.080)	.048)	.080)																					
<i>R</i> <sup>2</sup>	.055		.180	.028	.028	.124	.028	.049	.011	.184	.057																			

Note. Coefficients in the box are residual covariances (below diagonal) and correlations (above diagonal). \**p* < .05 (two-tailed test).

The above results, taken together, are consistent with our second working hypothesis that the effects of youth involvement in Scouting on subjective well-being in adulthood are likely to be explained by the positive outcomes of human and social capital and recreational lifestyle. But it is necessary to examine directly whether the mediated effects are significant. Before turning to our results, it is worth briefly examining residual correlations of the mediating (above diagonal in the box of Table 1; residual covariances and standard errors below diagonal) and ultimate endogenous variables (see below). As expected, all residual correlations of the mediating endogenous variables are significant in the positive direction, and so are those of the ultimate endogenous variables of well-being (not shown in table): relational  $\longleftrightarrow$  emotional ( $\beta = .089$ ,  $b = .656$  [.156],  $p < .05$ ); relational  $\longleftrightarrow$  physical ( $\beta = .100$ ,  $b = .318$  [.067],  $p < .05$ ); and emotional  $\longleftrightarrow$  physical ( $\beta = .213$ ,  $b = .423$  [.043],  $p < .05$ ).

Table 2 presents total, direct, and indirect effects of youth involvement in Scouting on subjective well-being in adulthood. First, years of Scouting were found to have no significant direct

TABLE 2  
Total, Direct, and Indirect Effects of Years of Scouting on Subjective Well-Being in Adulthood:  
Unstandardized (Standard Errors) and Standardized Coefficients

<i>Effects of years of Scouting</i>	<i>Subjective well-being in adulthood</i>					
	<i>Relational well-being</i>		<i>Emotional well-being</i>		<i>Physical well-being</i>	
	<i>b</i>	$\beta$	<i>b</i>	$\beta$	<i>b</i>	$\beta$
Baseline model						
Total/direct effects	.010 (.036)	.005	-.003 (.021)	-.003	-.003 (.009)	-.006
Mediation model						
Total effects	.010 (.036)	.005	-.003 (.021)	-.003	-.003 (.009)	-.007
Direct effects	-.058 (.035)	-.032	-.011 (.021)	-.002	-.009 (.009)	-.018
Total indirect effects	.068* (.013)	.037*	.008* (.004)	.007*	.006* (.003)	.012*
Indirect effects via						
Planning skills	.014* (.005)	.008*	.001 (.002)	.001	.001 (.001)	.001
Goal orientation	.009* (.004)	.005*	.003* (.001)	.003*	.003* (.001)	.006*
Personal networking	.026* (.008)	.014*	.005* (.002)	.004*	.000 (.001)	.000
Group membership	.012* (.004)	.007*	-.003 (.001)	-.003	.001 (.001)	.001
Outdoor leisure activities	.006* (.003)	.003*	.003 (.002)	.003	.001* (.000)	.003*
Non-outdoor leisure activities	.002 (.002)	.001	.001 (.001)	.001	.002* (.001)	.005*
Physical exercise	-.001 (.001)	-.001	-.002 (.002)	-.002	-.002 (.002)	-.005

\* $p < .05$  (two-tailed test).

effect on relational, emotional, and physical well-being before the mediating variables of positive outcomes were added (i.e., baseline model). Together with the findings above, this indicates that youth involvement in Scouting is unlikely to contribute to subjective well-being in adulthood, *unless* the involvement leads to prosocial adult outcomes later in life, indicating the indirect effects of years of Scouting on well-being via human and social capital and recreational lifestyle in adulthood. Next, below the “baseline model” panel, total effects estimated in the “mediation model,” which are the sum of direct and “total indirect” effects, are shown to be the same as the direct effects of the baseline model. The total indirect effects were then broken down into seven, estimated separately for each mediator.

The table shows that working Hypothesis 2 received empirical support, whether the mediators were examined jointly or individually. That is, years of Scouting were found to have significant total indirect effects in the expected direction on relational (.068), emotional (.008), and physical well-being (.006), while the indirect effects on relational well-being ( $\beta = .037$ ) were found to be large relative to emotional ( $\beta = .007$ ) and physical well-being ( $\beta = .012$ ). All but one variable (physical exercise), at least, partly explained the influence of youth involvement in Scouting on well-being in adulthood. Consistent with what was observed above, goal orientation explained the effects of Scouting on all three measures of well-being; whereas the other mediators did on two (personal networking and outdoor leisure activities) or one measure of well-being (planning skills, group membership, and non-outdoor leisure activities).

For a supplemental analysis, we estimated the model by replacing years of Scouting with two dummy variables (being an Eagle Scout and being a non-Eagle Scout), with non-Scout being the reference category; we found significant mediation mostly for those who were Eagle Scouts (see Tables 3 and 4). This is consistent with what was reported above because we found Eagle-Scout respondents to have participated in Scouting for a longer period of time than their non-Eagle-Scout counterparts (4.666 and 3.291, respectively, whose difference was significant,  $p < .05$ ). Thus the analysis showed the importance of extended involvement in voluntary youth activities for subjective well-being in adulthood rather than making a simple distinction of whether or not an individual ever participated in any youth organization during adolescence.

We also explored whether the effects of youth involvement in Scouting on positive adult outcomes interact with the respondent’s age, since the variable had a wide range (ages 18–94) and thus the effects might vary across ages. Further, it is likely that changing, sociocultural environments make Scouting more or less attractive to youth of different generations (Twenge, Campbell, and Freeman 2012). To explore the potential differences, we re-estimated our model after constructing an interaction term by multiplying years of Scouting and age. Results showed no significant interaction effects. Alternatively, we conducted multi-group analysis by dividing the total sample into four generations: Gen Y (born after 1983), Gen X (born 1965–1982), Baby Boom Generation (born 1946–1964), and Silent Generation (born before 1946). We found that significant effects were more likely to be observed for Gen X, Baby Boom Generation, and, to a lesser extent, Silent Generation than Gen Y (see Tables 5 and 6). Further, chi-square tests using equality constraint showed some of the observed generational differences were statistically significant.

TABLE 3  
An Alternative Model of Youth Involvement in Scouting and Well-Being in Adulthood: Unstandardized (Standard Errors) and Standardized Coefficients

	(1) Planning skills		(2) Goal orientation		(3) Personal networking		(4) Group membership		(5) Outdoor		(6) Non-outdoor		(7) Physical exercise		(8) Relational		(9) Emotional		(10) Physical	
	b	β	b	β	b	β	b	β	b	β	b	β	b	β	b	β	b	β	b	β
Age	-.006*	-.083*	-.010*	-.286*	-.002	-.021	.001	.011	-.007*	-.064*	-.003	-.040	.001	.005	.004	.020	.021*	.159*	-.008*	-.138*
	(.002)	(.002)	(.001)	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)	(.001)	(.001)	(.001)	(.001)	(.003)	(.005)	(.003)	(.003)	(.003)	(.001)	(.001)
White	-.054	-.019	-.055*	-.039*	-.205*	-.062*	-.048	-.014	.193*	.048*	-.135*	-.054*	-.020	-.004	.208	.024	-.069	-.013	.063	.027
	(.061)	(.061)	(.027)	(.027)	(.071)	(.071)	(.071)	(.085)	(.085)	(.052)	(.052)	(.113)	(.113)	(.113)	(.172)	(.172)	(.107)	(.107)	(.046)	(.046)
Education	-.044*	-.059*	-.054*	.147*	-.098*	-.112*	.139*	.151*	-.040	-.037	.096*	.145*	-.039	-.028	.017	.007	-.023	-.017	.073*	.117*
	(.018)	(.018)	(.008)	(.008)	(.020)	(.020)	(.020)	(.025)	(.045)	(.015)	(.015)	(.033)	(.033)	(.033)	(.051)	(.051)	(.032)	(.032)	(.014)	(.014)
Household income	.037*	.071*	.047*	.181*	.005	.008	.069*	.108*	.036	.049	.040*	.087*	.021	.021	-.081	-.049	.049*	.052*	.056*	.129*
	(.014)	(.014)	(.006)	(.006)	(.016)	(.016)	(.016)	(.019)	(.019)	(.012)	(.012)	(.024)	(.024)	(.024)	(.038)	(.038)	(.024)	(.024)	(.010)	(.010)
Unemployed	-.039	-.007	-.255*	-.096*	.027	.004	-.109	-.018	.367*	.048*	-.128	-.027	.476*	.048*	-.655*	-.039*	-.672*	-.069*	-.341*	-.077*
	(.117)	(.117)	(.052)	(.052)	(.133)	(.133)	(.133)	(.161)	(.161)	(.099)	(.099)	(.213)	(.213)	(.213)	(.325)	(.325)	(.204)	(.204)	(.088)	(.088)
Married	.256*	.102*	-.008	-.006	.270*	.091*	-.130	-.042	.218*	.061*	-.136*	-.061*	-.316*	-.067*	-.274	-.035	-.002	-.000	.089	.042
	(.062)	(.062)	(.028)	(.028)	(.071)	(.071)	(.071)	(.086)	(.086)	(.053)	(.053)	(.114)	(.114)	(.114)	(.174)	(.174)	(.109)	(.109)	(.047)	(.047)
East	-.241*	-.079*	-.046	-.030	-.052	-.014	-.036	-.009	-.218*	-.050*	-.047	-.017	-.435*	-.076*	.341	.036	.166	.030	.071	.028
	(.078)	(.078)	(.035)	(.035)	(.090)	(.090)	(.090)	(.109)	(.109)	(.067)	(.067)	(.144)	(.144)	(.144)	(.218)	(.218)	(.137)	(.137)	(.059)	(.059)
Midwest	-.255*	-.086*	-.035	-.024	.021	.006	.144	.039	-.108	-.025	.021	-.008	-.272	-.049	.041	.004	.136	.025	.049	.020
	(.077)	(.077)	(.034)	(.034)	(.088)	(.088)	(.088)	(.107)	(.107)	(.065)	(.065)	(.141)	(.141)	(.141)	(.214)	(.214)	(.134)	(.134)	(.058)	(.058)
South	-.069	-.027	-.014	-.011	-.021	-.007	-.009	.003	-.100	-.027	.005	.002	-.269*	-.055*	.338	.042	.302*	.064*	-.045	-.021
	(.069)	(.069)	(.031)	(.031)	(.079)	(.079)	(.079)	(.096)	(.096)	(.059)	(.059)	(.127)	(.127)	(.127)	(.191)	(.191)	(.120)	(.120)	(.052)	(.052)
Religiosity	.097*	.138*	.033*	.094*	.043*	.052*	.205*	.235*	.075*	.074*	.020	.033	-.001	-.000	.545*	.247*	.044	.035	.040*	.068*
	(.015)	(.015)	(.007)	(.007)	(.018)	(.018)	(.018)	(.022)	(.022)	(.013)	(.013)	(.029)	(.029)	(.029)	(.045)	(.045)	(.028)	(.028)	(.012)	(.012)
Eagle Scout	.319*	.097*	.125*	.077*	.151	.039	.242*	.060*	.393*	.083*	.106	.036	-.135	-.022	.069	.007	-.033	-.005	-.017	-.006
	(.077)	(.077)	(.034)	(.034)	(.089)	(.089)	(.089)	(.107)	(.107)	(.066)	(.066)	(.142)	(.142)	(.142)	(.216)	(.216)	(.136)	(.136)	(.058)	(.058)
Non-Eagle Scout	.060	.024	-.049	.040	.106	.036	.160*	.052*	.191*	.054*	.104*	.047*	-.220*	-.047*	-.310	-.040	-.046	-.010	-.002	-.001
	(.057)	(.057)	(.025)	(.025)	(.066)	(.066)	(.065)	(.079)	(.079)	(.049)	(.049)	(.105)	(.105)	(.105)	(.159)	(.159)	(.100)	(.100)	(.043)	(.043)
Planning skills			.215*		.127*		.062*		.140*		.052*		.156*		.312*		.024		.013	.021
			(.015)		(.015)		(.015)		(.015)		(.015)		(.015)		(.066)		(.041)		(.018)	(.018)
Goal orientation			.054*		.075*		.120*		.089*		.041*		.097*		.532*		.216*		.169*	.100*
			(.017)		(.017)		(.017)		(.017)		(.017)		(.017)		(.139)		(.086)		(.037)	(.037)
Personal networking			.100*		.265*		.126*		.118*		.045*		.117*		.588*		.096*		.062*	-.004
			(.037)		(.043)		(.043)		(.043)		(.052)		(.052)		(.052)		(.033)		(.014)	-.005
Group			.081*		.309*		.217*		.089*		.060*		.055*		.207*		-.037		-.025	.011
			(.044)		(.052)		(.051)		(.051)		(.052)		(.052)		(.052)		(.033)		(.014)	.016
Outdoor leisure activities			.081*		.309*		.217*		.089*		.060*		.055*		.207*		-.037		-.025	.011
			(.044)		(.052)		(.051)		(.051)		(.052)		(.052)		(.052)		(.033)		(.014)	.033
Non-outdoor activities			.067*		.098*		.130*		.130*		.073*		.143*		.054		.032		.025	.019
			(.027)		(.031)		(.031)		(.038)		.074*		.074*		(.045)		(.027)		(.012)	.062*
Physical exercise			.422*		.373*		.174*		.546*		.215*		.215*		(.069)		(.043)		.013	.059*
			(.059)		(.068)		(.068)		(.083)		(.050)		(.050)		(.033)		(.020)		(.019)	.076*
R <sup>2</sup>	.061		.185		.024		.116		.029		.048		.014		.191		.057		.172	.172

Note. Coefficients in the box are residual covariances (below diagonal) and correlations (above diagonal).  
\*  $p < .05$  (two-tailed test).



TABLE 4  
 An Alternative Model of Total, Direct, and Indirect Effects of Youth Involvement in Scouting on Subjective Well-Being in Adulthood: Unstandardized (Standard Errors) and Standardized Coefficients

<i>Effects of youth involvement in Scouting</i>	<i>Subjective well-being in adulthood</i>					
	<i>Relational well-being</i>		<i>Emotional well-being</i>		<i>Physical well-being</i>	
	<i>b</i>	$\beta$	<i>b</i>	$\beta$	<i>b</i>	$\beta$
<b>EAGLE SCOUTS</b>						
<b>BASELINE MODEL</b>						
Total/direct effects	.390 (.226)	.038	.013 (.136)	.002	.015 (.060)	.006
<b>MEDIATION MODEL</b>						
Total effects	.393 (.226)	.038	.013 (.136)	.002	.015 (.060)	.006
Direct effects	.069 (.216)	.007	-.033 (.136)	-.005	-.017 (.058)	-.006
Total indirect effects	.324* (.079)	.032*	.046 (.027)	.008	.032 (.017)	.012
Indirect effects via						
Planning skills	.010* (.032)	.010*	.008 (.013)	.001	.006 (.006)	.002
Goal orientation	.067* (.025)	.007*	.027* (.013)	.005*	.021* (.007)	.008*
Personal networking	.089 (.053)	.009	.014 (.010)	.002	-.001 (.002)	.000
Group membership	.050* (.022)	.005*	-.009 (.009)	-.001	.003 (.004)	.001
Outdoor leisure activities	.021 (.018)	.002	.012 (.011)	.002	.008 (.005)	.003
Non-outdoor leisure activities	.001 (.007)	.000	.003 (.005)	.000	.006 (.004)	.002
Physical exercise	-.004 (.006)	-.000	-.010 (.011)	-.002	-.010 (.011)	-.004
<b>NON-EAGLE SCOUTS</b>						
<b>BASELINE MODEL</b>						
Total/direct effects	-.162 (.167)	-.021	-.037 (.100)	-.008	.001 (.044)	.001
<b>MEDIATION MODEL</b>						
Total effects	-.165 (.167)	-.021	-.037 (.100)	-.008	.001 (.044)	.001
Direct effects	-.310 (.159)	-.040	-.046 (.100)	-.010	-.002 (.043)	-.001
Total indirect effects	.145* (.057)	.019*	.009 (.017)	.002	.004 (.012)	.002
Indirect effects via						
Planning skills	.019 (.018)	.002	.001 (.003)	.000	.001 (.001)	.001
Goal orientation	.026 (.015)	.003	.011 (.007)	.002	.008 (.005)	.004

(Continued)

TABLE 4  
(Continued)

<i>Effects of youth involvement in Scouting</i>	<i>Subjective well-being in adulthood</i>					
	<i>Relational well-being</i>		<i>Emotional well-being</i>		<i>Physical well-being</i>	
	<i>b</i>	$\beta$	<i>b</i>	$\beta$	<i>b</i>	$\beta$
Personal networking	.062 (.039)	.008	.010 (.007)	.002	.000 (.002)	.000
Group membership	.033* (.016)	.004*	-.006 (.006)	-.001	.002 (.002)	.001
Outdoor leisure activities	.010 (.009)	.001	.006 (.006)	.001	.004 (.003)	.002
Non-outdoor leisure activities	.001 (.007)	.000	.003 (.005)	.001	.006 (.003)	.003
Physical exercise	-.007 (.008)	-.001	-.016 (.009)	-.004	-.017* (.008)	-.008

\* $p < .05$  (two-tailed test).

## DISCUSSION AND CONCLUSION

This study intended to explore whether youth involvement in structured voluntary activities has a positive association with subjective well-being in adulthood. Among various organizations serving communities through programs of youth development, we focused on the Boy Scouts of America, a national youth organization with a long history that has rarely been systematically studied to examine their presumed contributions to the life of youth members in the short or long term. To address this shortcoming, we analyzed data from a national survey to test whether youth involvement in Scouting makes any difference later in adult life in terms of subjective well-being.

Our results showed that a youth's extended involvement in Scouting was positively associated with human capital, social capital, and recreational lifestyle in adulthood, which, in turn, were positively related to subjective well-being. First, human capital and social capital were both found to contribute to relational and, to a lesser extent, emotional well-being, which was also positively associated with physical exercise. Second, while the observed salutary influence of recreational lifestyle on physical well-being had been anticipated, we also found the human capital of goal orientation to enhance physical well-being. Perhaps goal orientation behaved partly as a proxy of propensity or personality contributing to physical well-being (e.g., self-control). We used unconventional measures of human capital due to data constraints, which were relevant and specific to Scouting. Thus, our findings regarding human capital should be interpreted with this limited measurement in mind, and future research is called to examine whether our measures, especially goal orientation, is generally applicable to research on human capital beyond the youth organization we studied.<sup>7</sup> Finally, youth involvement in Scouting had no direct effect on later subjective well-being, but was found to enhance relational and, to a lesser extent, emotional and physical

<sup>7</sup>While we used these rather unusual measures of human capital, especially the items of planning skills due to data constraints, results remained generally the same when the variable was removed (see Appendices B and C).

TABLE 5  
 Estimated Model of Youth Involvement in Scouting and Well-Being in Adulthood: Unstandardized (Standard Errors) and Standardized Coefficients

	(1) Planning skills		(2) Goal orientation		(3) Personal networking		(4) Group membership		(5) Outdoor		(6) Non-outdoor		(7) Physical exercise		(8) Social		(9) Emotional		(10) Physical		
	b	β	b	β	b	β	b	β	b	β	b	β	b	β	b	β	b	β	b	β	
Gen Y (n = 354; 18-27; born 1983-)																					
Years of Scouting	.027 (.033)	.044 (.013)	.016 (.064)	-.054 (.042)	.012 (.039)	.016 (.047)	.045 (.033)	-.005 (.033)	-.008 (.054)	-.027 (.054)	-.027 (.054)	.016 (.068)	.085 (.105)	-.018* (.053)	-.111* (.044)	.011 (.044)	-.005 (.051)	-.005 (.044)	.011 (.097)	.025 (.092)	.026 (.042)
Planning skills																					
Goal orientation																					
Personal networking																					
Group membership																					
Outdoor leisure activities																					
Non-outdoor activities																					
Physical exercise																					
Gen X (n = 714; 28-45; born 1965-82)																					
Years of Scouting	.032 (.021)	.059 (.009)	.024 (.097)	.071 (.025)	.027 (.024)	.040 (.032)	.088 (.019)	.107 (.019)	.075 (.038)	.026 (.038)	.026 (.038)	-.034 (.060)	-.020 (.072)	-.003 (.037)	-.003 (.054)	-.003 (.030)	-.003 (.059)	-.003 (.030)	-.001 (.041)	-.003 (.083)	-.003 (.030)
Planning skills																					
Goal orientation																					
Personal networking																					
Group membership																					
Outdoor leisure activities																					
Non-outdoor activities																					
Physical exercise																					

(Continued)

TABLE 5  
(Continued)

	(1) Planning skills		(2) Goal orientation		(3) Personal networking		(4) Group membership		(5) Outdoor		(6) Non-outdoor		(7) Physical exercise		(8) Social		(9) Emotional		(10) Physical		
	<i>b</i>	$\beta$	<i>b</i>	$\beta$	<i>b</i>	$\beta$	<i>b</i>	$\beta$	<i>b</i>	$\beta$	<i>b</i>	$\beta$	<i>b</i>	$\beta$	<i>b</i>	$\beta$	<i>b</i>	$\beta$	<i>b</i>	$\beta$	
Boomer ( <i>n</i> = 928; 46–64; born 1946–64)																					
Years of Scouting	.064	.108	.015	.051	.071	.103	.094	.135	.085	.102	.057	.111	-.019	-.017	-.105	-.054	.008	.007	-.012	-.024	
	(.020)	(.009)			(.023)		(.022)		(.028)		(.017)		(.038)		(.062)		(.039)		(.016)		
Planning skills															.527	.162	-.079	.042	.031	.037	
															(.107)		(.068)		(.028)		
Goal orientation															.547	.084	.311	.082	.184	.109	
															(.224)		(.140)		(.057)		
Personal networking															.521	.186	.072	.044	-.037	-.051	
															(.088)		(.055)		(.022)		
Group membership															.268	.097	-.154	-.095	.008	.011	
															(.093)		(.058)		(.024)		
Outdoor leisure activities															-.004	-.002	.048	.036	.026	.044	
															(.072)		(.045)		(.018)		
Non-outdoor activities															.057	.015	.078	.036	.104	.107	
															(.118)		(.074)		(.030)		
Physical exercise															.059	.035	.064	.063	.076	.172	
															(.053)		(.033)		(.014)		
Silent ( <i>n</i> = 507; 65–94; born before 1945)																					
Years of Scouting	.030	.055	.008	.025	.068	.108	.061	.075	.067	.086	.004	.008	-.118*	-.096*	-.055	-.027	.015	.015	-.025	-.045	
	(.027)	(.014)			(.029)		(.034)		(.035)		(.020)		(.057)		(.087)		(.046)		(.024)		
Planning skills															.282	.076	-.098	-.054	-.046	-.046	
															(.178)		(.091)		(.048)		
Goal orientation															.334	.050	.247	.075	.219	.123	
															(.314)		(.165)		(.082)		
Personal networking															.722	.221	-.063	-.040	.025	.029	
															(.137)		(.073)		(.037)		
Group membership															.250	.098	-.093	-.075	-.034	-.050	
															(.118)		(.064)		(.032)		
Outdoor leisure activities															.162	.061	.080	.062	.080	.113	
															(.115)		(.061)		(.031)		
Non-outdoor activities															.142	.032	.017	.008	.002	.002	
															(.195)		(.103)		(.053)		
Physical exercise															.072	.043	.017	.020	.093	.211	
															(.070)		(.037)		(.019)		

\**p* < .05 (two-tailed test).

TABLE 6  
 Total, Direct, and Indirect Effects of Years of Scouting on Subjective Well-Being in Adulthood:  
 Unstandardized (Standard Errors) and Standardized Coefficients

<i>Effects of Years of Scouting</i>	<i>Subjective Well-being in Adulthood</i>					
	<i>Social well-being</i>		<i>Emotional well-being</i>		<i>Physical well-being</i>	
	<i>b</i>	$\beta$	<i>b</i>	$\beta$	<i>b</i>	$\beta$
<b>Total sample (<i>N</i> = 2,503; 18–94)</b>						
Total effects	.010 (.036)	.005	-.003 (.021)	-.003	-.003 (.009)	-.007
Direct effects	-.058 (.035)	-.032	-.011 (.021)	-.002	-.009 (.009)	-.018
Total indirect effects	.068* (.013)	.037*	.008* (.004)	.007*	.006* (.003)	.012*
<b>Gen Y (<i>n</i> = 354; 18–27; born 1983–)</b>						
Total effects	.005 (.075)	.004	-.110 (.053)	-.114	.012 (.023)	.027
Direct effects	.016 (.068)	.011	-.108 (.053)	-.111	.011 (.022)	.025
Total indirect effects	-.011 (.033)	-.008	-.002 (.011)	-.003	.001 (.006)	.002
<b>Gen X (<i>n</i> = 714; 28–45; born 1965–82)</b>						
Total effects	.034 (.063)	.020	.013 (.037)	.013	.010 (.016)	.022
Direct effects	-.034 (.060)	-.020	-.003 (.037)	-.003	-.001 (.015)	-.003
Total indirect effects	.068* (.023)	.039*	.016 (.010)	.017	.011* (.005)	.025*
<b>Boomer (46–64; born 1946–64)</b>						
Total effects	.001 (.064)	.001	.016 (.038)	.014	-.002 (.016)	-.005
Direct effects	-.105 (.062)	-.054	.008 (.039)	.007	-.012 (.016)	-.024
Total indirect effects	.106* (.025)	.055*	.008 (.011)	.007	.010 (.006)	.019
<b>Silent (65–94; born –1945)</b>						
Total effects	.023 (.091)	.011	.007 (.046)	.007	-.030 (.025)	-.056
Direct effects	-.055 (.087)	-.027	.015 (.046)	.015	-.025 (.024)	-.045
Total indirect effects	.078* (.034)	.038*	-.008 (.010)	-.008	-.006 (.008)	-.011

Note. \**p* < .05 (two-tailed test).

well-being indirectly via the mediators of human and social capital and recreational lifestyles in adulthood.

Overall, the present findings might show that the influence of an adolescent’s participation in structured voluntary activities on positive development contributes to his or her life not only

during adolescence, but also adulthood (Larson, Hansen, and Moneta 2006). Stated differently, those who participated in Scouting for an extended period of time are more likely than those who were never a Scout or participated only for a short period of time to have human and social capital and recreational lifestyles, which enhances their subjective well-being in adulthood. While no direct measure of Scouting-generated positive development was available in the data, our variables of human and social capital and recreational lifestyles in adulthood are likely to be a function of positive youth development in that the variables partly indicate what Scouting is expected to have helped a youth achieve: the acquisition of planning skills, goal orientation, personal networking, group membership, and recreational lifestyles. Thus, this study indicates how involvement in community youth programs, like Boy Scouts, is likely to contribute to well-being in adulthood by generating positive development in youth, which later increases human and social capital and recreational lifestyles.

In examining our working hypotheses, we held the respondent's religiosity and sociodemographic variables constant, since they were likely causes or correlates of youth involvement in Scouting and of positive adult outcomes, including subjective well-being. So, those variables are believed to have indirectly, though partly, controlled for self-selection into participation in Scouting during adolescence, as discussed above, but we could not directly control for selection factors. As a result, the positive association of youth involvement in Scouting with subjective well-being in adulthood is likely to have been overestimated. Given this limited model specification, we suggest the results be interpreted with caution.

Our data constraints also did not allow us to adjust for whether respondents had participated in any other youth organizations or structured voluntary activities than Boy Scouts. Such participation is expected to have contributed to their positive development in adolescence, which would increase human and social capital, recreational lifestyles, and subjective well-being in adulthood. Thus, future research on the effect of Scouting should take into account various alternative organizations. Unlike the omission of selection factors, however, this is likely to have resulted in a more conservative test of our hypotheses because it would have caused us to underestimate the effect of involvement in Scouting (compared to non-involvement), given that non-Scouts were more likely than Scouts to have participated in other activities than Scouting and thus benefitted from them, which we could not control for.

In the same vein, our supplemental finding that the direct and indirect effects of being a non-Eagle Scout (compared to a non-Scout) on the endogenous variables tend to be smaller and less often significant than those of being an Eagle Scout (compared to being a non-Scout) could be attributed partly to the omitted control to the extent that non-Eagles are more similar to non-Scouts than Eagles in the probability of having participated in other activities than Boy Scouts. Also, given the expected time commitment to reach the rank of Eagle Scout and, thus, a greater chance of non-Eagles having participated in non-Scouting activities than Eagles, the observed difference in prosocial outcomes between Eagles and non-Eagles is likely to reflect a unique contribution of Scouting to its members' positive youth development in later life as well as the importance of extended participation in structured youth activities.

As acknowledged, causal inferences of our findings are limited because we analyzed cross-sectional data, though some of them are legitimate as discussed above. Future research on Boy Scouts or any other positive youth development program or community youth organization (e.g., Girl Scouts of the USA, Big Brothers, Big Sisters) would benefit from an accelerated longitudinal design-based data collection. Particularly, we believe that a multi-wave panel study of "at-risk"

children and adolescents has great potential to contribute not only to research but also policy on positive youth development. For example, such a study would be able to examine whether those young people living in disadvantaged communities of poverty, disorder, and crime are more likely to flourish over time when they participate in Boy Scouts or other programs for younger children (e.g., Tiger Cubs, Cub Scouts) compared to those not involved in any at all.

From its inception, the Boy Scouts has educated children, adolescents, and young adults to prepare them to become healthy and contributing members of American society. However, despite the organization's long history (incorporated in 1910) and nationwide membership of more than 2.7 million boys and young adults (ages seven through 21), there has been little attempt to systematically study the presumed contributions of Scouting to American youth and society. The current study represents a first step in that direction by reporting the results of a national survey of American adult males, and finding that youth involvement in Scouting, especially extended involvement, tends to have a salutary influence on life in adulthood.

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APPENDIX A  
Items Used for Analysis

<i>Concept/variable</i>	<i>Description of item (Response category)</i>	<i>n</i>	<i>Mean</i>	<i>S.D.</i>	<i>Min</i>	<i>Max</i>
Years of Scouting	How many years were you a member of the Boy Scouts before the age of 18? (0 = <i>Never a Scout</i> , 1 = <i>1 year</i> , 2 = <i>2 years</i> , 3 = <i>3 years</i> , 4 = <i>4 years</i> , 5 = <i>5 or more years</i> )	2475	1.349	1.897	.000	5.000
Human Capital Planning skills	Please indicate whether or not you or your household CURRENTLY has a Disaster Supply Kit with emergency supplies that is kept in a designated place . . . (0 = <i>No</i> , 1 = <i>Yes</i> ) — . . . in your home — . . . in your car — . . . where you work How about . . . ? — . . . a specific meeting place to reunite in the event you and your family cannot return home or are evacuated — . . . CPR Certification	2305	2.849	1.211	.000	5.000
Goal orientation	In the last year, have you made a . . . ? If you have, was it achieved? (1 = <i>No</i> , 2 = <i>Yes</i> , but it was <i>not achieved</i> , 3 = <i>Yes</i> , it was <i>achieved</i> ) (1) . . . personal goal (2) . . . professional goal (3) . . . financial goal	2444	2.114	.622	1.000	3.000
Social Capital Personal networking	How often do you talk or visit with your immediate neighbors—these are the 10 or 20 households that live closest to you? (1 = <i>Never</i> , 2 = <i>Once a year or less</i> , 3 = <i>Several times a year</i> , 4 = <i>Once a month</i> , 5 = <i>Several times a month</i> , 6 = <i>Several times a week</i> , 7 = <i>About every day</i> )	2512	.055	1.482	−3.420	3.410

Group membership	How many formal or informal groups or clubs do you belong to, in your area, that meet at least monthly? (0 = None, 1 = One, . . . 6 = Six, 7 = Seven or more)	2500	1.349	1.451	.000	7.000
Recreational Lifestyle Leisure activities	Please indicate whether or not you regularly participate in or do each of the following activities in your leisure or free time. (0 = No, 1 = Yes)					
Outdoor	(1) Boating (sailing, canoeing, kayaking, etc.) (2) Fishing (3) Hunting (4) Camping (5) Walking or hiking (6) Visiting a local, state, or national park (7) Bird watching (8) Snowmobiling or ATV riding	2512	5.157	1.979	.000	8.000
Non-outdoor	(1) Attend plays, concerts, or live theatre (2) Education or taking classes (3) Playing a musical instrument (4) Reading books	2512	2.390	1.063	.000	4.000
Physical exercise	In the last seven days, on how many days did you exercise for 30 or more minutes? (0 = None, 1 = One day, . . . 6 = Six days, 7 = Everyday)	2505	3.066	2.391	.000	7.000

(Continued)

APPENDIX A  
(Continued)

<i>Concept/variable</i>	<i>Description of item (Response category)</i>	<i>n</i>	<i>Mean</i>	<i>S.D.</i>	<i>Min</i>	<i>Max</i>
Subjective well-being						
Relational well-being	Please rate the closeness of your relationships with the following groups of people. (1 = <i>Not close at all</i> , . . . 5 = <i>Extremely close</i> ) (1) With your parents (2) With your siblings (3) With your children (4) With your neighbors (5) With your religious community (6) With your friends (7) With your coworkers	2497	.004	3.977	-18.080	8.180
Emotional well-being	Did you experience the following feeling during A LOT OF THE DAY yesterday? (0 = <i>No</i> , 1 = <i>Yes</i> ) (1) Worry* (2) Stress* (3) Depression*	2512	-.015	2.248	-5.310	2.110
Physical well-being	Would you say your own health, in general, is . . . ? (1 = <i>Poor</i> , 2 = <i>Fair</i> , 3 = <i>Good</i> , 4 = <i>Very good</i> , 5 = <i>Excellent</i> )	2512	3.600	1.038	1.000	5.000
Control Variables						
Age	Respondent's age at the time of survey	2503	47.672	17.405	18.000	94.000
White	Respondent's race (1 = <i>White</i> , 0 = <i>African American/Black, Hispanic, Asian, other</i> )	2455	.735	.441	.000	1.000
Education	What is the highest level of education you have completed? (1 = <i>Less than high school graduate</i> , 2 = <i>High school graduate</i> , 3 = <i>Some college</i> , 4 = <i>Trade/Technical/Vocational training</i> , 5 = <i>College graduate</i> , 6 = <i>Postgraduate work/degree</i> )	2500	3.367	1.628	1.000	6.000

Household income	What was your annual household income in 2009, before taxes? (1 = Under \$15,000, 2 = \$15,000 to less than \$25,000, 3 = \$25,000 to less than \$35,000, 4 = \$35,000 to less than \$45,000, 5 = \$45,000 to less than \$55,000, 6 = \$55,000 to less than \$75,000, 7 = \$75,000 to less than \$100,000, 8 = \$100,000 or over)	2329	5,019	2,391	1,000	8,000
Unemployed	Respondent's current employment status (1 = Unemployed, 0 = Employed, a stay at home mom, a student, retired, other)	2500	.068	.252	.000	1,000
Married	Respondent's marital status at the time of survey (1 = Married, 0 = Single/Never married, separated, divorced, widowed, domestic partnership/living with partner [not legally married])	2509	.588	.492	.000	1,000
Region	Respondent's region of residence at the time of survey (1) Northeast (2) Midwest (3) South (4) West	2512 2512 2512 2512 2475	.214 .223 .322 .241 2.270	.410 .416 .467 .428 1.722	.000 .000 .000 .000 .000	1,000 1,000 1,000 1,000 5,000
Religiosity	Typically, how often do you attend religious services? (1 = Never, 2 = Major religious holidays, 3 = Once a month, 4 = Once a week, 5 = More than once a week)					

Note. \* Reverse-coded item.

APPENDIX B  
 Revised Model of Youth Involvement in Scouting and Well-Being in Adulthood: Unstandardized (Standard Errors) and Standardized Coefficients

	(1) Goal orientation			(2) Personal networking			(3) Group membership			(4) Outdoor			(5) Non-outdoor			(6) Physical exercise			(7) Relational			(8) Emotional			(9) Physical		
	b			b			b			b			b			b			b			b			b		
	$\beta$	SE	$\beta$	$\beta$	SE	$\beta$	$\beta$	SE	$\beta$	$\beta$	SE	$\beta$	$\beta$	SE	$\beta$	$\beta$	SE	$\beta$	$\beta$	SE	$\beta$	$\beta$	SE	$\beta$	$\beta$	SE	
Age	-.010*	(.001)	-.279*	-.002	(.002)	-.024	.001	.008	-.007*	(.002)	-.067*	-.003*	(.001)	-.045*	-.001	(.003)	-.010	.004	.020	.020*	(.003)	.154*	-.008*	(.001)	-.008*	-.140*	
White	-.057*	(.026)	-.041*	-.231*	(.068)	-.070*	-.071	-.020	.151	.037*	-.128*	-.052*	(.050)	-.052*	-.013	(.109)	.002	.366*	.041*	-.085	(.103)	-.017	.077	(.044)	-.077	.033	
Education	.060*	(.008)	.162*	-.110*	(.020)	-.125*	-.140*	.152*	-.039	(.024)	-.037	.090*	(.014)	.138*	-.035	(.032)	-.025	.004	.002	-.027	(.031)	-.020	.063*	(.013)	.102*		
Household income	-.045*	(.006)	.175*	.001	(.015)	.002	.069*	.108*	.027	(.019)	.037	.043*	(.011)	.094*	.014	(.025)	.014	-.069	-.042	.049*	(.024)	.052*	(.010)	.052*	.134*		
Unemployed	-.257*	(.049)	-.098*	-.047	(.126)	.008	-.181	-.028	.360*	(.153)	.048*	-.141	(.093)	-.030	.308	(.204)	.031	-.661*	-.040*	-.742*	(.193)	-.077*	(.083)	-.341*	-.078*		
Married	-.009	(.027)	-.007	.234*	(.069)	.079*	-.144*	-.046*	.222	(.083)	.062*	.151*	(.051)	-.068*	-.311*	(.204)	-.066*	-.232	-.029	.019	(.105)	.004	(.045)	.093*	.044*		
East	-.039	(.034)	-.025	-.053	(.086)	-.015	-.016	-.004	-.221*	(.104)	-.050*	-.027	(.064)	-.010	-.409*	(.139)	-.071*	.378	.039	.128	(.131)	.023	(.056)	.072	.028		
Midwest	-.035	(.033)	-.023	.018	(.085)	.005	.171*	.047	-.075	(.102)	-.018	-.005	(.062)	-.002	-.278*	(.136)	-.049*	-.292	-.002	.158	(.128)	.029	(.055)	.066	.027		
South	-.015	(.030)	-.012	.010	(.076)	.003	.033	.010	-.099	(.092)	-.027	.005	(.056)	.002	-.271*	(.122)	-.056*	.292	.036	.288*	(.115)	.061*	(.049)	-.048	-.022		
Religiosity	-.033*	(.007)	.093*	-.047*	(.017)	.056*	.207*	.236*	.069*	(.021)	.068*	.015	(.013)	.024	-.001	(.028)	-.001	.548*	.245*	.056*	(.027)	.043*	(.011)	.040*	.067*		
Years of Scouting	.017*	(.005)	.058*	.044*	(.014)	.065*	.059*	.082*	.074*	(.017)	.089*	.033*	(.010)	.065*	-.029	(.022)	-.026	-.050	-.027	-.010	(.021)	-.010	(.009)	-.008	-.017		
Goal orientation				.075*			.120*		.089*			.041*		.097*				.682*	.107*	.216*		.059*		.189*	.113*		
Personal networking							.126*		.118*			.045*		.117*				.610*	.228*	.108*		.070*		-.001	-.001		
Group membership				.253*					.089*			.060*		.055*				.050	.082*	.031		-.039		.013	.013		
Outdoor leisure activities				.084*			.218*				.073*		.143*					.103	.047*	.042		.033		.021	.036		
Non-outdoor activities				.019			.049		.132*			.090*		.074*				.072	.020	.026		.015		.021	.074*		
Physical exercise				.012			.030		.036			.179*		.066*				.067	.033	.064*		.015		.041	.175*		
R <sup>2</sup>				.122*			.026		.028			.048		.011				.054	.174	.057		.066*		.077*	.174		

Note. Coefficients in the box are residual covariances (below diagonal) and correlations (above diagonal).  
 \*  $p < .05$  (two-tailed test).

APPENDIX C  
 Revised Model of Total, Direct, and Indirect Effects of Years of Scouting on Subjective Well-Being in Adulthood: Unstandardized (Standard Errors) and Standardized Coefficients

<i>Effects of years of Scouting</i>	<i>Subjective well-being in adulthood</i>					
	<i>Relational well-being</i>		<i>Emotional well-being</i>		<i>Physical well-being</i>	
	<i>b</i>	$\beta$	<i>b</i>	$\beta$	<i>b</i>	$\beta$
<b>BASELINE MODEL</b>						
Total/direct effects	.010 (.036)	.005	-.003 (.021)	-.003	-.003 (.009)	-.006
<b>MEDIATION MODEL</b>						
Total effects	.010 (.036)	.005	-.003 (.021)	-.003	-.003 (.009)	-.007
Direct effects	-.050 (.035)	-.027	-.010 (.021)	-.010	-.008 (.009)	-.017
Total indirect effects	.059* (.012)	.032*	.007 (.004)	.007	.005 (.003)	.011
Indirect effects via						
Goal orientation	.011* (.004)	.006*	.004* (.002)	.003*	.003* (.001)	.007*
Personal networking	.027* (.009)	.015*	.005* (.002)	.005*	.000 (.001)	.000
Group membership	.012* (.004)	.007*	-.003 (.002)	-.003	.001 (.001)	.001
Outdoor leisure activities	.008* (.004)	.004*	.003 (.002)	.003	.002 (.001)	.003
Non-outdoor leisure activities	.002 (.002)	.001	.001 (.001)	.001	.002* (.001)	.005*
Physical exercise	-.002 (.002)	-.001	-.002 (.002)	-.002	-.002 (.002)	-.005

Note. \* $p < .05$  (two-tailed test).