Voluntary Participation and Parents’ Reasons for Enrollment in After-School Programs: Contributions of Race/Ethnicity, Program Quality, and Program Policies

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Abstract

Using data from the state evaluation of Michigan 21st Century Community Learning Centers, this study employed multilevel modeling to examine racial/ethnic and programmatic factors relevant to two aspects of after-school program participation: youths’ voluntary participation and parents’ reasons for enrollment. The samples consisted of 2,256 fourth- to twelfth-grade youth from 117 programs and 1,849 parents of kindergarten to twelfth-grade participants from 99 programs. Middle Eastern youth reported the lowest voluntary participation rates, while their parents were most likely to enroll them for academics. African-American parents were more concerned about enrolling for academics and childcare than were white parents. After controlling for program quality, the proportion of same-race peers, programs’ cultural responsiveness, and attendance policies were also factors in participation.

KEYWORDS: Race/Ethnicity, After-School Programs; Voluntary Participation; Reasons For Enrollment; HLM

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Introduction

Mounting evidence has demonstrated the benefits of youth involvement in high-quality after-school programs (ASPs). Although the literature can be inconsistent, the bulk of work suggests that participation in high-quality ASPs is associated with academic success (Eccles & Barber, 1999; Jenner & Jenner, 2007; Marsh, 1992; Posner & Vandell, 1994), developmental asset-building (Gambone & Arbreton, 1997), opportunities for mentoring (Darling, Caldwell, & Smith, 2005; Darling, Hamilton, & Niego, 1994; Hirsch, 2005), and prevention of problematic behaviors such as juvenile delinquency (Gottfredson, Cross, & Soule, 2007), teen pregnancy (Méndez-Negrete, Saldaña, & Vega, 2006), and substance abuse (Caldwell & Darling, 1999; St. Pierre, Mark, Kaltreider, & Campbell, 2001). Overall, ASPs are designed to give youth opportunities for healthy leisure time use (Mahoney, Larson, Eccles, & Lord, 2005b) and support the needs of working families by providing a safe, supervised setting when school is not in session (Halpern, 2002).

The literature suggests ASPs have their greatest impacts on low-income youth, who tend to be disproportionately low-achieving and from racial/ethnic minority groups (Marsh, 1992; Marsh & Kleitman, 2002). The impact of ASP involvement may be stronger on low-income youth because their home and neighborhood environments are often less enriching and more dangerous than those of middle-income youth (Robinson & Fenwick, 2007; Simpkins, 2003). However, most studies examining ASP participation have concluded that low-income minority youth have lower participation rates than their white counterparts and that their time outside of school is often highly unproductive (e.g., Fulbright-Anderson, Lawrence, Sutton, Susi, & Kubisch, 2005; Harvard Family Research Project, 2007; Pedersen & Seidman, 2005; Rothstein, 2004; Shann, 2002), indicating a need to identify pathways to enrollment in ASPs for these groups.

Reauthorized under the No Child Left Behind Act (NCLB) in 2002, the 21st Century Community Learning Centers (21st CCLC) program is the largest ASP initiative in the United States that aims to provide academic enrichment opportunities for youth attending high-poverty and low-performing schools during non-school hours. Unlike many ASPs run by community organizations, for-profit businesses, faith groups or governmental organizations such as municipal park and recreation departments (Shumow, 2001), 21st CCLC programs are known for their comprehensive curriculum and strong focus on academic enrichment for at-risk youth, and are mostly administered by school districts and/or operated in school settings (Naftzger et al., 2007).

In Michigan, 21st CCLC funding is administered by the state Department of Education and is mostly spent on serving non-white ethnic groups. Although African Americans constitute the largest population of color in Michigan, Michigan is unique in that it has the highest concentration of Arab Americans in the country and the growth rate of the Hispanic population exceeds the national average (U.S. Census Bureau, 2000). Newer residents of these two groups are mostly refugees or seasonal migrants who, along with the state’s African-American community, are more vulnerable to economic downturns and experience higher poverty rates than whites (National Council of La Raza, 2009; The U.S. Census Bureau, 2000).

Given this context, the present study is designed to provide insights that can
encourage participation in academically focused ASPs, particularly those serving diverse and low-income families. Using data from the state evaluation of Michigan 21st CCLC programs in 2005-06, this study examines programmatic and racial/ethnic factors associated with youths' voluntary participation and parents' reasons for enrolling youth in ASPs.

**Literature**

**Reasons for ASP Participation**

Youth attend ASPs for a variety of reasons. Some seek new skills, others desire academic help, and many view it as an opportunity to be with friends (Borden et al., 2006; Darling et al., 2005; Perkins et al., 2007; Wimer et al., 2006). While some youth may actively want to go to ASPs, others may be compelled to attend by parents, teachers, and counselors. In addition, while the academic emphasis and predominantly academic setting of 21st CCLC programs may be advantageous in supporting some outcomes, youth may be more inclined to view these programs as an extension of the school day (Schwartz, 1996). Parents may also have multiple reasons for wanting their children to attend ASPs; whereas the impetus for some parents is to provide their children with opportunities for enrichment or academic improvement, other parents are predominantly concerned with ensuring that their children are in an affordable, safe, supervised environment after school (Duffett, Johnson, Farkas, Kung, & Ott, 2004).

Most research on ASPs either assumes that youth participation in ASPs is voluntary or does not explicitly discuss the issue; however, some youth attend ASPs because they are compelled by their parents or recommended by school counselors. Adults may compel participation in order to ensure children’s safety, increase academic achievement, encourage friendships, and build new skills (Afterschool Alliance, 2008; Robinson & Fenwick, 2007). At the same time, adolescence is a critical period for the development of autonomy (Eccles, Early, Fraser, Belansky, & McCarthy, 1997; Ryan & Deci, 2000), and adolescents’ perceptions of freedom in choosing leisure activities is a critical factor in determining the extent of their leisure involvement as well as the quality of their leisure experience (Caldwell, Baldwin, & Walls, 2004; Raymore, Godbey, & Crawford, 1994). More importantly, youth who feel free to choose the activities in which they participate experience greater competence, intrinsic motivation and enjoyment—factors that have the potential to transfer to other domains of their lives and help shape behaviors and attitudes for successful transition into adulthood (Caldwell et al., 2004; Guinn, Semper, & Jorgensen, 1996; Hultsman & Kaufman, 1990).

However, parents, especially mothers, have strong influence and control over youths’ after-school arrangements, both because parents are responsible for ensuring their children’s safety and because emotional ties between children and parents remain strong even during adolescence (Larson & Richards, 1994; Steinberg, 1999). Parents report significant need for ASPs, particularly low-income parents (Afterschool Alliance, 2003). Although researchers, practitioners, and policy-makers have engaged in a long policy debate regarding whether ASPs should focus primarily on academic support or on the non-academic aspects of development (Halpern, 1999; Hirsch, 2005), little research has addressed these issues from the perspective of parents (Afterschool Alliance, 2003).
Despite increasing emphasis by policymakers on academically focused ASPs, in a survey of 1,003 parents of school-age children asking what they want for their children in ASPs, academic help was not ranked at the top of the priority list (Duffett et al., 2004). In fact, most parents reported that supervised homework time was either “nice but not essential” (37%) or “not important” (28%). Rather, parents’ interests were evenly split among the three major types of activities that ASPs tend to offer: (a) academic preparation and skills; (b) athletics/sports; (c) and art, music and dance activities. The authors also noted that the answers varied by social/demographic background. Specifically, low-income and minority parents consistently reported concerns about their children’s academic success and stressed the need for ASPs to provide academic learning or preparation opportunities. Low-income and minority youth also reported seeking academic help through ASPs to a greater extent than their more affluent or white counterparts.

Program Characteristics and Participation

Beyond personal reasons for ASP attendance, characteristics of programs have the potential to facilitate or deter participation. The quality of the program, such as the relevance of activities to young people’s interests, staff skill at engaging with youth, and the degree to which the peer culture is friendly rather than aggressive or disruptive, is likely to contribute to youths’ desire to attend (Mahoney, Larson, & Eccles, 2005a). Moreover, although all 21st CCLC programs are required to offer some form of academic support, the types of operating organizations might make them more or less enticing to potential attendees based on the organizations’ affiliations or philosophies. For example, programs operated by parks and recreation agencies may emphasize sports, arts, dance or other recreational activities, whereas programs run by schools may have comparatively more resources, experience, and motivation to provide academic support. Depending on circumstances, youth and parents may favor some approaches more than others, although they may not always agree on what those approaches should be.

Program Quality Associated with Participation

Presumably, high-quality programs are successful at recruiting and retaining youth. While no single definition of quality has been agreed upon, several programmatic aspects, such as supportive adult-youth relationships, positive peer cultures, and opportunities for engagement and challenge, have been linked to increased likelihood of participation. For example, Hirsch (2005) identified the importance of building adult-youth relationships and adult mentorship in retaining at-risk youth in programs. This point of view is shared by other researchers who emphasize the provision of safe places for youth where they can avoid opportunities for trouble and get adult support from the community (Gambone & Arbreton, 1997; Halpern, Barker, & Mollard, 2000; McLaughlin, Irby, & Langman, 1994). However, researchers have also noted the possibility of “deviant training” among youth participating in ASPs; without sufficient high-quality adult supervision to provide structure and promote positive social norms, they may use the program time to learn about risky behaviors from peers (Dishion, McCord, & Poulin, 1999; Gottfredson et al., 2007). As a result, many researchers have favored a more struc-
tured curriculum in ASPs to help prevent behavioral problems (Osgood, Anderson, & Shaffer, 2005) and produce better outcomes such as reduced substance use (Gottfredson et al., 2007).

Moreover, interesting, challenging, and developmentally appropriate learning activities are key to promoting participation (Lauver & Little, 2005; Mahoney et al., 2005a). Activities that allow engaging academic or other enrichment learning such as arts, music, sports, and technology may increase youths’ motivation to participate (Duffett et al., 2004; George, Cusick, Wasserman, & Gladden, 2007; Perkins et al., 2007). Although involvement in ASPs or extracurricular activities decreases as youth reach higher grade levels (McNeal, 1999; Vandell & Shumow, 1999), activities related to youth governance, community involvement, college preparation, or career opportunities can help recruit and sustain older youths’ participation (Lauver & Little, 2005; Pittman, 1999; Zeldin, 2004).

Based on the current literature, we surveyed youth about their perceptions of program quality—staff supportiveness and injustice, the quality of their interaction with peers, the extent to which program activities were challenging and engaging, opportunities for decision-making and governance—as well as their perceptions of programs helping them with academic and non-academic learning in order to empirically examine how these program quality experiences might be associated with their voluntary participation. To better understand how program quality is linked to parents’ reasons for enrolling their children, we also asked parents about their perceptions of the programs as learning environments and the extent to which they were satisfied with the time programs spent on academic and recreation activities.

**Program Enrollment and Attendance Policies**

Operational decisions made by ASP administrators can also affect who participates and how often. For example, program developers must balance issues of accessibility and intensity; some programs prefer to open the doors to as many youth as possible to ensure that ASP opportunities are widely accessible, while others choose to serve a smaller, consistent group of youth more frequently with the hope of maximizing positive impacts (Lauver, Little, & Weiss, 2004). Similarly, some programs serve all youth who want to attend, while others target particular groups, such as low-achieving youth, and may recruit by working with teachers, counselors, administrators, and parents to identify potential participants. Particularly in these cases, youth may perceive their attendance at an ASP as compelled by others rather than as their own choice.

**Contributions of Race/Ethnicity to ASP Participation**

Research has found that youth of varying income and ethnic/racial backgrounds differ in their ASP participation. Three major hypotheses have been employed to explain racial differences in leisure participation and preferences: marginality, ethnicity/subcultural preference, and interracial relations and discrimination (Elmendorf, Willits, & Sasidharan, 2005; Lee, Scott, & Floyd, 2001; West, 1989).
First adapted by Washburne (1978), the marginality hypothesis proposed that the lower leisure participation rate of African Americans was due to their historically alienated access to socioeconomic resources such as education, transportation, health care, and employment. Consistent with this theory, lack of access to ASP resources is most often cited as the reason for minority youths’ low participation rates (Bouffard et al., 2006; Harvard Family Research Project, 2007).

The ethnicity/subcultural hypothesis proposes that cultural norms, values, and realities contribute to group differences in leisure participation and preferences (Washburne, 1978). For example, in a qualitative study of ethnic minority youths’ reasons for participation in ASPs, Perkins and colleagues (2007) identified several themes associated with specific ethnic and gender groups. Specifically, African-American females liked ASPs because of the opportunities to increase their self-esteem and form meaningful relationships with adults, while African-American males participated in order to foster autonomy and individualism (Perkins et al., 2007). Latina and Arab females both cited reasons for participating that focused on personal development, learning about their cultures, and connecting with the community. The reasons of Latino and Arab males differed markedly; whereas Latinos stressed opportunities for sports involvement and “a means to escape from the house,” Arab males favored the academic benefits of participation.

A third hypothesis proposed to explain racial/ethnic differences in leisure participation centers on interracial conflict and discrimination. Numerous studies have documented that racial minority groups, especially African Americans, continue to experience personal and structural racism and discrimination that restricts their leisure participation and enjoyment (Floyd & Gramann, 1993; Shinew, Floyd, & Parry, 2004; West, 1989; Woodard, 1988). Among youth, those who are ethnic minority group members in their school or classroom are more likely to be victims of bullying (Graham & Juvonen, 2002) and less likely to report that majority youth are friendly or polite to them (Feddes, Noack, & Rutland, 2009). Racially motivated conflict and discrimination can also be experienced by whites when they are the racial minority in a given setting (Shinew et al., 2004).

Moreover, research has consistently found that youth tend to select same-race/ethnicity peers to interact with throughout childhood and adolescence (Aboud, Mendelson, & Purdy, 2003; Tatum, 1997), although this differs over time by gender and age (Lee, Howes, & Chamberlain, 2007). As a result, youth may gravitate toward ASPs when the imbalance is less pronounced or their racial/ethnic group constitutes the majority.

The racial/ethnic makeup of program staff may have an effect on students’ participation as well. A large randomized experimental study conducted in Tennessee found that African-American youth learned more from African-American teachers and white youth from white teachers, suggesting the racial dynamics within classrooms may contribute to the persistent racial gap in youth performance (Dee, 2004). Others found that students and staff who are similar in their demographic characteristics may develop closer relationships that help reduce problem behaviors compared to students and staff from disparate groups (Catalano & Hawkins, 1996).

To stress the influence of culture and ethnicity on student learning, Gay (2000) introduced the concept of culturally responsive teaching, which is to use cultural
characteristics, experiences and perspectives of different ethnic groups to facilitate effective teaching. With the idea to place culture, ethnicity, and diversity at the center of student learning, she and many other scholars encouraged teachers to design culturally relevant curricula, to help facilitate effective cross-cultural communication and friendship, and to deliver academic knowledge and skills through living experience (Dee, 2004; Fong, 2004; Gay, 2002; Goldstein & Noguera, 2006).

To conclude, the literature has suggested that not only race/ethnicity, but also the racial/ethnic composition of the programs and the utilization of culturally responsive approaches in program design may play a role in influencing youth to choose to attend ASPs. In this study, youths’ race/ethnicity, their exposure to same-race/ethnicity peers, the racial/ethnic diversity of program participants, and the extent to which program administrators sought to create a culturally responsive environment were examined to explore the racial/ethnic effects in youths’ voluntary participation.

**Study Purpose and Research Hypotheses**

In the mainstream literature, minority youth have often been compared to White youth as an aggregated group rather than distinguished by their individual races and ethnicities. Researchers have called for more relevant social science research that can contribute to applications for managing leisure services and environments within an increasingly multi-ethnic and multi-racial society (Floyd, Bocarro, & Thompson, 2008; Stodolska, 2000). Accordingly, this study aims to address this gap by examining pathways to enrollment in ASPs with particular attention to differences among African American, Hispanic, and Middle Eastern/Arab racial/ethnic minority groups in addition to whites. The available data required our race/ethnicity definition to focus on the group that the youth most identified with; discussions of finer-grained racial/ethnic identification were beyond the scope of this study.

To date, we could not identify any studies that investigated the extent to which youths’ participation in ASPs reflects their choice or is required by adults. In addition, research on parents’ reasons for enrolling their children in ASPs is still limited. Using data from the state evaluation of Michigan 21st CCLC, this study employed multilevel modeling (Raudenbush & Bryk, 2002) to examine two research questions:

1. How are program quality and policies, as perceived by adolescent participants and their parents, associated with youths’ voluntary participation and parents’ reasons for enrollment?
2. To what extent is race/ethnicity associated with adolescents’ voluntary participation and parents’ reasons for participation after controlling for perceived program quality?

We hypothesized that youth voluntary participation would be linked to more positive perceptions of program quality, less stringent attendance policies, a higher proportion of same-race/ethnicity peers in the program, and greater programmatic attention to cultural responsiveness. We hypothesized that parents’ reasons for academic and childcare enrollment would be associated with better perceived program quality, more stringent attendance policies, and that parents of non-
white minority youth may place greater emphases on enrolling for academic and childcare reasons.

**Method**

**Sample**

The 21st CCLC initiative, reauthorized under Title IV, Part B, the No Child Left Behind (NCLB) Act in 2002, has been the primary federal response to the well-documented need for ASPs (Naftzger et al., 2007). Administered by the U.S. Department of Education, funds are awarded to state education departments and allocated to schools and community- or faith-based organizations to serve youth attending low-performing schools that have large numbers of low-income youth. Grants are awarded on a competitive basis and the funded ASPs are held responsible for producing academic improvement outcomes (James-Burdumy et al., 2005). In 2005-2006, 32 organizations serving 25,642 youth at 187 programs were funded by Michigan 21st CCLC. Most (91%) of these programs were school-based, and more than half of them served at least 75% of the students who were eligible for free or reduced-price lunch. One organization serving 55 programs was not included in the study because the school policy required surveys to be anonymous, resulting in an inability to link survey responses to demographic and attendance information.

The sample included youth (N = 2,256 from 117 programs) served in Michigan 21st CCLC programs during 2005-06 and their parents (N = 1,849 from 99 programs). The average grade level of the youth sample was 6th grade (SD = 1.71) and 56% were female. Sixty percent were African-American, 32% were white, 4% were Hispanic (primarily Mexican immigrants) and 4% were Middle Eastern/Arab (primarily Muslim immigrants from Yemen, Lebanon, Iraq, Jordan, Egypt, Palestine and other Middle Eastern countries). Youth survey participants attended programs for an average of 62 days (SD = 40).

For the parent sample, the majority of the respondents (87%) were mothers. Sixty-two percent were African-American, 33% were white, 4% were Hispanic, and 1% were Middle Eastern. It appeared that the children of parent respondents in this study stayed longer in the program than youth survey participants, with an average attendance of 73 days (SD = 43).

**Measures**

**Outcome Variables**

Youth voluntary participation. Youth reported their most important reason for coming to the program on a dummy-coded scale of 1=“I want to come,” or 0=compelled participation (“My parents want me to come,” or “A teacher, principal, or counselor wants me to come.”

Parent reasons for enrolling their child. Parents reported on the importance of seven reasons for deciding to enroll their children, such as: “It is a safe place for my child after school,” “It provides dependable after school care,” and “I hope it will help my child do better in school.” Response options were: 1=“Not important,” 2=“Kind of important,” 3=“Very important.” Results of a principal components analysis of these items indicated the presence of two components represent-
ing two types of reasons: academic (3 items, alpha = 0.66, 42.10% of the variance) and childcare (3 items, alpha = 0.72, 17.40% of the variance). One item (“School staff suggested that my child enroll”) loaded on both components and was not included on either scale.

**Individual-Level Predictors**

*Youth demographics.* Demographic data was collected from a web-based attendance tracking system and included gender (male = 1, female = 0), grade level, and race (white, Hispanic/Latino, Middle Eastern/Arab, and Black/African American/Multi-racial).

*Total attendance.* Each youth’s number of total days of attendance during the regular school year in the program was collected by the attendance tracking system. While total attendance might seem like an outcome variable, our work has consistently shown that more days of attendance are associated with less program satisfaction, probably reflecting that some students attend more not because of choice, but others require them to. As a result, we use it as a control variable to avoid confounding it with the dependent variables.

*Percent of same-race/ethnicity peers.* The extent to which youth were exposed to peers at the program who shared their race/ethnicity was estimated as the proportion of “regular attendees” who belonged to the youth’s racial/ethnic group out of all “regular attendees.” The federal 21st CCLC program has identified “regular attendees” as participants who attend at least 30 days in a year. This calculation includes only “regular attendees” because they represent the major service population who formed the social and racial/ethnic dynamics of the program.

*Perceptions of program quality.* On youth surveys, youth reported on nine scales representing their perceptions of program quality: (a) *Staff Support* (5 items, alpha = 0.82) had items such as “Staff care about me” and “Staff treat kids with respect;” (b) *Youth Governance* (7 items, alpha=0.81) had items like “All kids get a chance to be a leader” and “Kids and staff set goals for what should happen;” (c) *Peer Support* (6 items, alpha=0.82) had items such as “Kids help each other out” and “Kids tell each other when they do a good job;” (d) *Academic Support* (4 items, alpha=0.79) included items such as “This program helps me understand what we are doing in class” and “This program helps me learn school subjects in interesting ways;” (e) *Program Enjoyment* (4 items, alpha=0.63) had items like “I look forward to coming to this program” and “I would tell other kids to come to this program for fun activities;” (f) *Staff Injustice* (3 items, alpha=0.67) had items like “Staff get mad when you make a mistake” and “Staff punish kids without even knowing what really happened;” (g) *Challenging Experiences* (2 items, alpha=0.53) had items such as “The activities are too easy” which were reversely recoded to compute the scale; (h) *Academic Improvement* (3 items, alpha=0.84) assessed the extent to which youth perceived the program as having helped them improve in reading/language arts/English, math, and other school subjects; and (i) *Non-academic Improvement* (9 items, alpha=0.93) asked about the extent to which the program helped them improve in other areas, including staying away from drugs and alcohol, eating healthy food, sports and getting exercise. Each item was rated on a 4-point scale ranging from 1 (Strongly disagree) to 4 (Strongly agree). The exception was the *Aca-
demestic Support items, for which youth had an additional option of indicating that they did not do schoolwork in this program.

Parent surveys provided data on the parents’ perceptions of: (a) Time Spent on Academics (1 item), “This program spends the right amount of time on academics;” (b) Time Spent on Recreation (1 item), “This program spends the right amount of time on recreation;” and (c) Program as a Learning Environment (5 items, alpha = 0.91), with items such as “This program helped my child do better in school” and “This program helped my child learn ways to handle his/her feelings.” Responses were on a scale from 1 (Strongly disagree) to 4 (Strongly agree).

Program-Level Predictors

Racial/ethnic diversity. An index of racial/ethnic diversity was computed as a program-level variable in order to present an overall picture of the diversity of the service population in the programs. Again, the calculation includes only “regular attendees” because they represent the major service population who formed the social and racial dynamics of the program. The computation was based on Simpson’s formula for index of diversity (Simpson, 1949):

\[ D_c = 1 - \sum_{i=1}^{g} P_i^2, \]

where \( D_c \) is the ethnic diversity of a given program and \( p \) is the proportion of youth in the program who are in ethnic group \( i \). Finally, \( P_i^2 \) is summed across \( g \) groups in a program. This measure gives the probability that any two youth randomly selected in a classroom are from different ethnic groups. Possible values range from 0 ~1, with values closer to 1 indicating greater diversity. It accounts for both the number of different ethnic groups that are represented in a given program and the relative proportion of each ethnic group within that program, which is different from the percentage of same-race/ethnicity peers at the individual level.

Culturally responsive environment. At the program level, the degree to which the program was a culturally responsive environment was evaluated based on program coordinators’ responses in their 2005-06 annual reports to four questions: (a) “Do you employ staff who speak the same language as most of the youth you serve?” (b) “Do you employ staff who have the same cultural background as the youth you serve?” (c) “Do you provide specific training or professional development on cultural sensitivity to your staff?” and (d) “Do you develop activities that are tailored to the cultural populations you serve?” Response categories were no (0) and yes (1), and responses were summed so that larger values represented more culturally responsive approaches for a particular program according to the administrator’s self-report. Because the measure consisted of four dichotomous responses, the magnitude of the inter-item covariance was constrained and thus reduced the reliability estimate of this scale to alpha=0.41.

Attendance policy. Program directors reported on their attendance policies in structured annual reports. Responses were coded as: 0 = “None;” 1 = “No rules, but using incentives or expectations to motivate youth;” and 2 = “Written policy regarding youths’ absence or delinquency.”
Poverty. The percent of youth eligible for free or reduced-price lunch in each affiliated school was accessed from the Michigan Department of Education data repository. Values range from 0.00 to 1.00, with 1.00 representing 100% of youth eligible for free/reduced-price lunch.

Operation days. Programs’ total days of operation were used as a control variable.

Procedures

Data on demographics and attendance were collected through a real-time online tracking database (EZReports) managed by each program with training, technical assistance, and oversight provided by the Michigan 21st CCLC state evaluation team. Program administrators’ reports of cultural responsiveness were collected as part of the state annual reporting process. Youth and parent surveys were sent to 21st CCLC programs in Michigan in April and May of 2006. Youth surveys were written in English, while parent surveys were available in Arabic and Spanish in addition to English. Program staff indicated that youth of immigrant parents did not need alternatives other than English. For detailed information on survey distribution procedures and scale developments, see Wu, Van Egeren, and Bates (2007). The intended sample included all 4th- to 12th-grade youth and parents of kindergarten to 12th-grade youth who completed non-anonymous surveys in spring 2006.

A total of 2,555 youth surveys from 117 programs and 2,055 parent surveys from 113 programs were returned, with 96% of eligible programs returning youth surveys and 89% of eligible programs returning parent surveys. Return rates at the individual level were 56% for youth surveys and 28% for parent surveys; these response rates were based on the number of potential respondents who were sent surveys and recorded as having attended the program during the administration period. Respondents with missing data were excluded from the analyses, resulting in a final sample of 2,256 youth from 117 programs and a total of 1,849 parents from 99 programs. The Chi-square and ANOVA tests between the included and excluded groups of respondents on the outcome variables confirmed that the programs and respondents excluded due to missing data were similar to those included in the analyses (Youth voluntary participation: $\chi^2(1, N=2,555) = .22, p>.05$; Parent enrollment for academic reasons: F$(1, 1973)=3.62, p>.05, \eta^2 = .00$) and for childcare reasons: F$(1, 2015)=0.04, p>.05, \eta^2 = .00$).

Analytic Approach

Three two-level hierarchical linear models (HLM v.6.20; Raudenbush & Bryk, 2002) were employed to account for nesting of individuals within programs and to address variations across program contexts. Individual- and program-level factors were used to account for variations in (a) youths’ voluntary participation (a dichotomous variable analyzed through a Bernoulli model); and parents’ reasons for enrollment related to (b) academic support and (c) need for childcare. Null models that included only the dependent variable were first tested to determine whether significant program-level variation existed to warrant multi-level analyses. Next, individual-level predictors were entered. For the youth model, these
included demographic and attendance variables (such as gender, grade level, and total attendance); perceived program quality variables (staff support, youth governance, peer support, academic support, program enjoyment, staff injustice, challenging experiences, academic improvement, non-academic improvement); and race/ethnicity characteristics, including youth race/ethnicity (white, African American, Hispanic, and Middle Eastern/Arab) and percentage of same-race/ethnicity peers in the program. Two-way interactions among gender, ethnicity, and the percentage of same-race/ethnicity youth were introduced into the youth model. For the parent model, the level-one predictors included parent’s gender, child’s gender, grade level, race/ethnicity, total attendance, and perceived program quality variables (time spent on academics, time spent on recreation, and program as a learning environment). Two-way interaction effects between the child’s gender and race/ethnicity were also examined in the parent model.

Lastly, program-level variables were entered to assess program-level moderators of the relationships between youth characteristics and outcomes. Program-level variables included programmatic factors—the strictness of the program’s attendance policy, the total number of days the program operated, and the poverty level, as well as cultural factors such as culturally responsive environments and racial/ethnic diversity. The latter two were not expected to be tied to parents’ reasons for enrollment and were not included in the parent model.

To illustrate the approach, Equation (1) shows the level-1 (within-program) parent model and represents the extent to which reasons for enrollment are endorsed for individual \( i \) in program \( j \), \( Y_{ij} \), as a linear function of various individual-level characteristics, \( X_{ijp} \), and random error, \( e_{ij} \):

\[
Y_{ij} = \beta_0 + \beta_1 X_{ij1} + \beta_2 X_{ij2} + \ldots + \beta_p X_{ijp} + e_{ij}
\]  

(1)

where \( i = 1, 2, \ldots, i \) individuals; \( j = 1, 2, \ldots, j \) programs; and \( p = 0, 1, 2, \ldots, p \) individual-level covariates. The \( \beta_{ij} \) regression coefficient indicated how individual outcomes in program \( j \) are distributed with regard to measured individual factors such as gender, race/ethnicity, and program quality perceptions.

Because the outcome variable of the youth model is binary, Equation (2) for the level-1 Bernoulli youth model is:

\[
\eta_{ij} = \log \left( \frac{\phi_{ij}}{1 - \phi_{ij}} \right) = \beta_0 + \beta_1 X_{ij1} + \beta_2 X_{ij2} + \ldots + \beta_p X_{ijp}
\]  

(2)

where \( \phi_{ij} \) is the probability of youth \( i \) reporting voluntary participation in program \( j \) and \( \eta_{ij} \) is the log of the odds under a function of various individual-level characteristics, \( X_{ijp} \). Again, the \( \beta_{ij} \) regression coefficient indicates how youths’ voluntary participation in program \( j \) are distributed with regard to measured individual factors.

Unlike multiple regression or logistic regression, which assumes that an initiative has a constant effect on all participants regardless of program influences, these models allow us to assess whether different effects emerge for individuals participating at different programs. For the level-2 (between-program) model, each of the regression parameters is included as a function of program-level variables, \( Z_{j'} \), and a unique residual program effect \( v_{ij} \):
\[ \beta_{jp} = \gamma_{0p} + \gamma_{1p}Z_{j1} + \gamma_{2p}Z_{j2} + \ldots + \gamma_{lp}Z_{jl} + v_{jp} \]  

(3)

where \( l = 0, 1, 2, \ldots, l \). Equation (3) models the effects of program-level variables on the distribution of outcomes within programs.

To address the question regarding how ASP participation varies by characteristics associated with race/ethnicity, these variables were entered at the last stage of each level’s model. Program experiences were entered as fixed effects. No random effects were found on demographic variables. In accordance with the method prescribed by Raudenbush and Bryk (2002) for modeling building, coefficients that were not statistically significant were removed. Interaction effects were computed as the products of centered variables (Aiken & West, 1991); all other continuous variables were grand-mean centered. To avoid problems of multicollinearity, dummy-coded race variables for white, Hispanic, and Middle Eastern/Arab groups were tested simultaneously, with African Americans forming the referent group.

**Results**

**Youths’ Voluntary Participation**

**Descriptives**

Table 1 presents descriptives for the variables included in the model predicting youths’ voluntary participation and their correlations with the outcome variable. The majority (71%) of the youth sample reported that they came to the program voluntarily. Programs operated an average of 146 (SD = 37) days a year; the average program had no written attendance policy but used incentives or expectations to motivate youth (\( M = 1.20, SD = 0.89 \)). Relatively low levels of within-program racial/ethnic diversity were evident (\( M = 0.31, SD = 0.23 \))—that is, while the sample as a whole was diverse, many programs predominantly served one racial/ethnic group. Administrators self-reported relatively greater cultural responsiveness (\( M = 3.47, SD = 0.70 \)). In general, youth reported medium to high levels of satisfaction with their program experiences (\( M = 3.04, SD = 0.71 \)); however, they also reported relatively high levels of staff injustice (\( M = 2.49, SD = 0.93 \)) and low to medium degree of challenge (\( M = 2.88, SD = 0.93 \)) resulting from their involvement.

**Multilevel Regression Results for Youth Voluntary Participation**

Results of the null model confirmed that youths’ voluntary participation rates varied across programs, \( \chi^2 (116, N = 2,256) = 378.49, p < .001 \), with an average within-program reliability \( \lambda \) of 0.61. Significant level-1 demographic predictors included gender and grade level, with females and older youth reporting higher rates of voluntary participation. Additionally, at level 1, youth who perceived higher levels of program enjoyment and more challenging experiences had higher rates of voluntary participation. After identifying significant demographic and program quality variables, youths’ race/ethnicity and exposure to same-race/ethnicity peers were entered into the model. Results indicated that Middle Eastern/Arab adolescents were less likely to participate voluntarily compared to all other groups and that adolescents with a greater proportion of same-race/ethnicity peers in the program were more likely to report voluntary participation. The proposed level-2 program factors were entered after the level-1 model was determined. The
### TABLE 1: DESCRIPTION OF VARIABLES USED IN THE YOUTH MODEL

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Description</th>
<th>Mean</th>
<th>Median</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
<th>Corr. with Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LEVEL ONE (N=2,256)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voluntary participation</td>
<td>1=Voluntary participation; 0=Non-voluntary participation</td>
<td>0.71</td>
<td>1.00</td>
<td>0.45</td>
<td>0.00</td>
<td>1.00</td>
<td>---</td>
</tr>
<tr>
<td>Grade level</td>
<td>Grade level (8=6th grade)</td>
<td>8.20</td>
<td>8.00</td>
<td>1.71</td>
<td>6.00</td>
<td>14.00</td>
<td>0.10</td>
</tr>
<tr>
<td>Total attendance</td>
<td>Total days attended</td>
<td>62.07</td>
<td>55.00</td>
<td>40.40</td>
<td>1.00</td>
<td>195.00</td>
<td>-0.11</td>
</tr>
<tr>
<td>Gender</td>
<td>1=male; 0=female</td>
<td>0.44</td>
<td>0.00</td>
<td>0.50</td>
<td>0.00</td>
<td>1.00</td>
<td>-0.11</td>
</tr>
<tr>
<td>White</td>
<td>1=White; 0=others</td>
<td>0.32</td>
<td>0.00</td>
<td>0.47</td>
<td>0.00</td>
<td>1.00</td>
<td>-0.01</td>
</tr>
<tr>
<td>Black</td>
<td>1=African American; 0=others</td>
<td>0.59</td>
<td>1.00</td>
<td>0.49</td>
<td>0.00</td>
<td>1.00</td>
<td>0.07</td>
</tr>
<tr>
<td>Hispanics</td>
<td>1=Hispanic; 0=others</td>
<td>0.04</td>
<td>0.00</td>
<td>0.20</td>
<td>0.00</td>
<td>1.00</td>
<td>-0.03</td>
</tr>
<tr>
<td>Middle Eastern</td>
<td>1=Middle Eastern; 0=others</td>
<td>0.04</td>
<td>0.00</td>
<td>0.18</td>
<td>0.00</td>
<td>1.00</td>
<td>-0.11</td>
</tr>
<tr>
<td>Same-race/ethnicity peers</td>
<td>Percentage of same-race/ethnicity youth in the program</td>
<td>0.72</td>
<td>0.87</td>
<td>0.29</td>
<td>0.00</td>
<td>1.00</td>
<td>0.06</td>
</tr>
<tr>
<td>Youth governance</td>
<td>Youth governance</td>
<td>2.73</td>
<td>2.86</td>
<td>0.74</td>
<td>1.00</td>
<td>4.00</td>
<td>0.18</td>
</tr>
<tr>
<td>Peer climate</td>
<td>Peer climate</td>
<td>2.68</td>
<td>2.67</td>
<td>0.72</td>
<td>1.00</td>
<td>4.00</td>
<td>0.13</td>
</tr>
<tr>
<td>Staff supportiveness</td>
<td>Staff supportiveness</td>
<td>3.33</td>
<td>3.40</td>
<td>0.69</td>
<td>1.00</td>
<td>4.00</td>
<td>0.15</td>
</tr>
<tr>
<td>Academic support</td>
<td>Academic support</td>
<td>2.88</td>
<td>2.88</td>
<td>0.75</td>
<td>1.00</td>
<td>4.00</td>
<td>0.09</td>
</tr>
<tr>
<td>Program satisfaction</td>
<td>Program satisfaction</td>
<td>3.04</td>
<td>3.04</td>
<td>0.71</td>
<td>1.00</td>
<td>4.00</td>
<td>0.34</td>
</tr>
<tr>
<td>Staff injustice</td>
<td>Staff injustice</td>
<td>2.49</td>
<td>1.96</td>
<td>0.93</td>
<td>1.00</td>
<td>4.00</td>
<td>-0.09</td>
</tr>
<tr>
<td>Enough challenge</td>
<td>Enough challenge</td>
<td>2.88</td>
<td>2.50</td>
<td>0.93</td>
<td>1.00</td>
<td>4.00</td>
<td>0.08</td>
</tr>
<tr>
<td>Academic learning</td>
<td>Help with academic learning</td>
<td>2.93</td>
<td>3.00</td>
<td>0.93</td>
<td>0.00</td>
<td>4.00</td>
<td>0.09</td>
</tr>
<tr>
<td>Non-academic learning</td>
<td>Help with non-academic subjects</td>
<td>3.05</td>
<td>3.11</td>
<td>0.83</td>
<td>0.00</td>
<td>4.00</td>
<td>0.13</td>
</tr>
<tr>
<td><strong>LEVEL TWO (N=117)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Culturally responsive environment</td>
<td>Culturally responsive environment</td>
<td>3.47</td>
<td>4.00</td>
<td>0.70</td>
<td>1.00</td>
<td>4.00</td>
<td>0.19</td>
</tr>
<tr>
<td>Cultural diversity</td>
<td>Cultural diversity</td>
<td>0.31</td>
<td>0.32</td>
<td>0.23</td>
<td>0.00</td>
<td>0.88</td>
<td>-0.06</td>
</tr>
<tr>
<td>Attendance policy</td>
<td>Strictness of attendance policy</td>
<td>1.20</td>
<td>2.00</td>
<td>0.89</td>
<td>0.00</td>
<td>2.00</td>
<td>0.02</td>
</tr>
<tr>
<td>Poverty level</td>
<td>Percentage of youth receiving free and reduced lunch in the affiliated school</td>
<td>0.74</td>
<td>0.77</td>
<td>0.18</td>
<td>0.25</td>
<td>0.99</td>
<td>0.07</td>
</tr>
<tr>
<td>Operation days</td>
<td>Total program operation days</td>
<td>145.62</td>
<td>147.00</td>
<td>37.23</td>
<td>57.00</td>
<td>230.00</td>
<td>-0.11</td>
</tr>
</tbody>
</table>
program being a culturally responsive environment was the only significant level-2 factor and was positively associated with voluntary participation. Table 2 displays the multilevel regression results for the finalized model testing predictors of youth voluntary participation.

**Table 2: Estimates of the Two-Level Model for Youths' Voluntary Participation**

<table>
<thead>
<tr>
<th>Fixed Effect</th>
<th>Beta</th>
<th>se</th>
<th>Odds Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base voluntary rate</td>
<td>1.34***</td>
<td>0.12</td>
<td>3.82</td>
</tr>
<tr>
<td>Culturally responsive environment</td>
<td>0.28*</td>
<td>0.13</td>
<td>1.37</td>
</tr>
<tr>
<td>Grade</td>
<td>0.14**</td>
<td>0.04</td>
<td>1.15</td>
</tr>
<tr>
<td>Gender</td>
<td>-0.41***</td>
<td>0.11</td>
<td>0.66</td>
</tr>
<tr>
<td>White</td>
<td>-0.04</td>
<td>0.14</td>
<td>0.96</td>
</tr>
<tr>
<td>Hispanics</td>
<td>-0.17</td>
<td>0.29</td>
<td>0.84</td>
</tr>
<tr>
<td>Middle Eastern</td>
<td>-1.60**</td>
<td>0.51</td>
<td>0.20</td>
</tr>
<tr>
<td>Same-race/ethnicity peers</td>
<td>0.56*</td>
<td>0.24</td>
<td>1.75</td>
</tr>
<tr>
<td>Program enjoyment</td>
<td>1.10***</td>
<td>0.08</td>
<td>2.99</td>
</tr>
<tr>
<td>Challenging experiences</td>
<td>0.15*</td>
<td>0.06</td>
<td>1.16</td>
</tr>
</tbody>
</table>

**Random Effect**

<table>
<thead>
<tr>
<th>Between-program variance</th>
<th>$\chi^2 (115, N=2,256)$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>249.63***</td>
</tr>
</tbody>
</table>

Note: * Indicates $|\text{coeff/se}| > 2.00$; ** Indicates $|\text{coeff/se}| > 2.50$; *** Indicates $|\text{coeff/se}| > 3.00$.

Table 3 documents the variance accounted for in each step of the model building process and results from the model comparison tests. Originally, the total variance in voluntary participation rates was 0.70. After adjusting for significant demographic and program quality variables, the unexplained variance reduced to 0.50, indicating that 28.98% of the variance was attributable to differences in the aforementioned youth factors. The introduction of youths’ race/ethnicity variables at level-1 resulted in a drop in variance to 0.43, accounting for an additional 9.13% in total variance explained. Finally, the inclusion of the programs being a culturally responsive environment at level-2 further decreased the variance to 0.41, accounting for an additional 3.59% increase of the variance explained by this level-2 factor. Together, the racial/ethnic and cultural effects from the two levels accounted for an additional 12.77% of the total variance after controlling for level-1 demographics and program quality factors. The final youth model accounted for 41.75% of the total variance attributed to the included level-1 and level-2 factors. Model comparison tests indicated that the inclusion of new variables from each step significantly increased the goodness of fit of the model.
Parents’ Reasons for Enrollment

Descriptives

Table 4 presents descriptives for the variables included in the model predicting parents’ reasons for enrollment and their correlations with the outcome variables. Overall, parents rated both types of reasons for enrollment as quite important; average ratings for academic reasons were 2.41 (SD = 0.57) and for childcare reasons were 2.74 (SD = 0.45). Parents in general reported medium to high satisfaction with the appropriateness of time spent on academics (M = 3.37, SD = 0.64) and recreation (M = 3.41, SD = 0.58) and with the program as a learning environment (M = 3.43, SD = 0.51). The high degree of overlap (95%) between the programs represented in the parent analyses and those represented in the youth analyses resulted in similar program-level characteristics for both samples.

The ICC was 0.14 for the academic reasons and 0.18 for the childcare reasons, meaning that roughly 13.8% and 17.8% of the total variances were associated with program-level characteristics as opposed to individual characteristics. The χ² values for both models allowed us to reject the null hypothesis that the extent to which parents emphasized academic or childcare reasons for enrollment were equal across programs (χ² (98, N=1,849) = 437.27, p < 0.001 for academic reasons; χ² (98, N=1,849) = 423.81, p < 0.001 for childcare reasons). The total variance for both academic and childcare reasons was 0.04. Altogether, the data indicated significant variability across programs, warranting multilevel analyses.

Multilevel Regression Results for Academic Reasons for Enrollment

Table 5 displays the analysis results predicting academic reasons for enrollment. Youth gender was the only significant level-1 demographic predictor, with parents reporting a stronger emphasis on enrolling their children for academic reasons for boys than girls; parent’s gender, youth grade level and total attendance were not associated with academic reasons for enrollment. For level-1 program quality predictors, parents’ perceptions of time spent on academics and program as a learning environment were positively associated with higher emphases on academic reasons for enrollment. These factors explained 4.55% of the total variance.
### TABLE 4: DESCRIPTION OF VARIABLES USED IN THE PARENT MODEL

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Description</th>
<th>Mean</th>
<th>Median</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
<th>Correlation with Reasons</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(Acad.)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(Childcare)</td>
</tr>
<tr>
<td><strong>LEVEL ONE (N=1,849)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic reasons for enrollment</td>
<td>Academic reasons for enrollment</td>
<td>2.41</td>
<td>2.33</td>
<td>0.57</td>
<td>1.00</td>
<td>3.00</td>
<td>0.36</td>
</tr>
<tr>
<td>Childcare reasons for enrollment</td>
<td>Childcare reasons for enrollment</td>
<td>2.74</td>
<td>3.00</td>
<td>0.45</td>
<td>1.00</td>
<td>3.00</td>
<td>-0.01</td>
</tr>
<tr>
<td>Parent's gender</td>
<td>1=father; 0=mother</td>
<td>0.13</td>
<td>0.00</td>
<td>0.33</td>
<td>0.00</td>
<td>1.00</td>
<td>-0.05</td>
</tr>
<tr>
<td>Gender</td>
<td>1=male student; 0=female student</td>
<td>0.47</td>
<td>0.00</td>
<td>0.50</td>
<td>0.00</td>
<td>1.00</td>
<td>0.04</td>
</tr>
<tr>
<td>Grade level</td>
<td>The child's grade level (8=6th grade)</td>
<td>6.29</td>
<td>6.00</td>
<td>2.51</td>
<td>2.00</td>
<td>14.00</td>
<td>-0.19</td>
</tr>
<tr>
<td>White</td>
<td>1=White; 0=others</td>
<td>0.33</td>
<td>0.00</td>
<td>0.47</td>
<td>0.00</td>
<td>1.00</td>
<td>-0.22</td>
</tr>
<tr>
<td>Black</td>
<td>1=African American; 0=others</td>
<td>0.59</td>
<td>1.00</td>
<td>0.49</td>
<td>0.00</td>
<td>1.00</td>
<td>0.19</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1=Hispanic; 0=others</td>
<td>0.04</td>
<td>0.00</td>
<td>0.19</td>
<td>0.00</td>
<td>1.00</td>
<td>0.05</td>
</tr>
<tr>
<td>Middle Eastern</td>
<td>1=Middle Eastern; 0=others</td>
<td>0.01</td>
<td>0.00</td>
<td>0.12</td>
<td>0.00</td>
<td>1.00</td>
<td>-0.02</td>
</tr>
<tr>
<td>Total attendance</td>
<td>The child's total days attended</td>
<td>73.46</td>
<td>71.00</td>
<td>43.39</td>
<td>1.00</td>
<td>189.00</td>
<td>-0.04</td>
</tr>
<tr>
<td>Time spent on academics</td>
<td>Program spent right amount of time on academics</td>
<td>3.37</td>
<td>3.00</td>
<td>0.64</td>
<td>1.00</td>
<td>4.00</td>
<td>0.22</td>
</tr>
<tr>
<td>Time spent on recreation</td>
<td>Program spent right amount of time on recreation</td>
<td>3.41</td>
<td>3.00</td>
<td>0.58</td>
<td>1.00</td>
<td>4.00</td>
<td>0.15</td>
</tr>
<tr>
<td>Program as a Learning Environment</td>
<td>Program as a learning environment</td>
<td>3.43</td>
<td>3.40</td>
<td>0.51</td>
<td>1.00</td>
<td>4.00</td>
<td>0.29</td>
</tr>
<tr>
<td><strong>LEVEL TWO (N=99)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strictness of attendance policy</td>
<td>Strictness of attendance policy</td>
<td>1.10</td>
<td>1.00</td>
<td>0.91</td>
<td>0.00</td>
<td>2.00</td>
<td>0.31</td>
</tr>
<tr>
<td>Poverty level</td>
<td>Percentage of youth receiving free and reduced lunch in the affiliated school</td>
<td>0.72</td>
<td>0.76</td>
<td>0.19</td>
<td>0.25</td>
<td>0.99</td>
<td>0.24</td>
</tr>
<tr>
<td>Operation days</td>
<td>Total program operation days</td>
<td>149.92</td>
<td>149</td>
<td>34.85</td>
<td>72.00</td>
<td>230.00</td>
<td>-0.20</td>
</tr>
</tbody>
</table>
Subsequently, the race/ethnicity variables were entered into the model. Significant main effects emerged for race/ethnicity, with parents of Middle Eastern/Arab participants placing more emphasis on academic reasons for enrollment. In addition, an interaction between white race and gender indicated that white parents were less concerned about academic reasons for enrollment for their children, especially girls, compared to the African-American referent group (see Figure 1). No significant differences were found between Hispanic and African-American parents. The inclusion of the race/ethnicity variables substantially increased the amount of variance explained to 31.82%.

At level 2, only the strictness of attendance policy emerged as a significant predictor. This finding suggested that in programs with more structured and specific policies toward attendance, parents were more likely to report a higher emphasis on academic reasons for enrollment. The final model explained 34.09% of variance, with a slight 2.27% increase after adjusting for the level-2 effects. Results from the model comparison tests indicated that the inclusion of new variables from each model-building step significantly increased the goodness of fit of the model. For details on the change of variance explained and the goodness of fit by each step, see Table 6.

**Multilevel Regression Results for Childcare Reasons for Enrollment**

Results of analyses predicting childcare reasons for enrollment are included in Table 5. The predictors for childcare reasons for enrollment differed from those for academic reasons. For demographic predictors, child grade level was a significant
TABLE 5: ESTIMATES OF THE TWO-LEVEL MODEL FOR PARENTS’ REASONS FOR ENROLLMENT

<table>
<thead>
<tr>
<th>Fixed Effect</th>
<th>Academic Reasons</th>
<th>Childcare Reasons</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficient</td>
<td>se</td>
</tr>
<tr>
<td>Intercept</td>
<td>2.45***</td>
<td>0.03</td>
</tr>
<tr>
<td>The strictness of attendance policy</td>
<td>0.04*</td>
<td>0.02</td>
</tr>
<tr>
<td>Grade level</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Total attendance</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Days program in operation</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Gender</td>
<td>0.03</td>
<td>0.03</td>
</tr>
<tr>
<td>White</td>
<td>-0.23***</td>
<td>0.04</td>
</tr>
<tr>
<td>Hispanics</td>
<td>-0.02</td>
<td>0.06</td>
</tr>
<tr>
<td>Middle Eastern</td>
<td>0.27*</td>
<td>0.12</td>
</tr>
<tr>
<td>Interaction between White and sex</td>
<td>0.10*</td>
<td>0.05</td>
</tr>
<tr>
<td>Time spent on academics</td>
<td>0.06*</td>
<td>0.02</td>
</tr>
<tr>
<td>Time spent on recreation</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Program as a Learning Environment</td>
<td>0.29***</td>
<td>0.03</td>
</tr>
</tbody>
</table>

Random Effect

<table>
<thead>
<tr>
<th>Between-program variance</th>
<th>χ² (115, N = 2,256)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>357.78***</td>
</tr>
<tr>
<td></td>
<td>243.64***</td>
</tr>
</tbody>
</table>

Note: * Indicates |coeff/se| > 2.00; ** Indicates |coeff/se| > 2.50; *** Indicates |coeff/se| > 3.00.

TABLE 6: VARIANCES EXPLAINED AND MODEL COMPARISONS IN THE PARENTS’ ACADEMIC REASONS FOR ENROLLMENT

<table>
<thead>
<tr>
<th>Model Bldg. Steps</th>
<th>Additional Variables Added from the Previous Step</th>
<th>Total Variance</th>
<th>% of Variance Explained to the Null Model</th>
<th>Deviance</th>
<th>Number of Estimated Parameters</th>
<th>Model Comparison Test from the Previous Step</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Base Model: Null (no predictors)</td>
<td>0.044</td>
<td>—</td>
<td>2976.07</td>
<td>3</td>
<td>—</td>
</tr>
<tr>
<td>1</td>
<td>Level-1: demographic and program perception factors</td>
<td>0.042</td>
<td>4.55 %</td>
<td>2799.41</td>
<td>5</td>
<td>α²=176.66***</td>
</tr>
<tr>
<td>2</td>
<td>Level-1: racial/ethnic factors</td>
<td>0.030</td>
<td>31.82 %</td>
<td>2742.74</td>
<td>10</td>
<td>α²= 56.67***</td>
</tr>
<tr>
<td>3</td>
<td>Level-2: the strictness of attendance policy</td>
<td>0.029</td>
<td>34.09 %</td>
<td>2738.74</td>
<td>11</td>
<td>α²= 3.85*</td>
</tr>
</tbody>
</table>

Note: * p<.05; **p<.01; ***p<.001
**Figure 2.** Interaction effect between race (white vs. African-American) and the child’s gender on parents’ emphasis on childcare reasons for enrollment.

**Table 7:** Variances Explained and Model Comparisons in the Parents’ Childcare Reasons for Enrollment

<table>
<thead>
<tr>
<th>Model Bldg. Steps</th>
<th>Additional Variables Added from the Previous Step</th>
<th>Total Variance</th>
<th>% of Variance Explained to the Null Model</th>
<th>Deviance</th>
<th>Number of Estimated Parameters</th>
<th>Model Comparison Test from the Previous Step</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Base Model: Null (no predictors)</td>
<td>0.038</td>
<td>—</td>
<td>2166.17</td>
<td>3</td>
<td>—</td>
</tr>
<tr>
<td>1</td>
<td>Level-1: demographic and program perception factors</td>
<td>0.025</td>
<td>34.21 %</td>
<td>2042.67</td>
<td>8</td>
<td>$\chi^2 = 123.50^{***}$</td>
</tr>
<tr>
<td>2</td>
<td>Level-1: racial/ethnic factors</td>
<td>0.016</td>
<td>57.89 %</td>
<td>2003.78</td>
<td>12</td>
<td>$\chi^2 = 38.89^{***}$</td>
</tr>
<tr>
<td>3</td>
<td>Level-2: the strictness of attendance policy and total operation days</td>
<td>0.014</td>
<td>63.16 %</td>
<td>1991.03</td>
<td>14</td>
<td>$\chi^2 = 12.75^{**}$</td>
</tr>
</tbody>
</table>

Note: * p<.05; ** p<.01; *** p<.001
predictor; unsurprisingly, parents were more likely to endorse childcare reasons for enrollment for children in earlier grades. Additionally, children who had a greater number of days of attendance were more likely to have parents who reported enrolling their children for childcare reasons. Among the program quality variables, while parents’ perceptions of the extent to which program as a learning environment remained a significant and positive predictor, their perception of the appropriate time spent on recreation also emerged as a positive predictor and the time spent on academics became irrelevant to the outcome. These non-race/ethnicity factors accounted for 34.21% of the total variance.

The race/ethnicity factor was then introduced into the model. The results indicated that parents of Hispanic youth were less likely to enroll their children for childcare reasons than were African-American parents. No significant differences were found for Middle Eastern/Arab parents; however, a significant white race and gender interaction emerged, with white parents indicating that they were less likely to enroll their children, especially their girls, in the program for childcare reasons compared to African-American parents (see Figure 2). The race/ethnicity variables explained an additional 23.68% of the total variance.

At level 2, stricter attendance policies were again associated with parents’ emphasizing enrolling their children for reasons of childcare. A significant effect for total program operation days on the slope of the child’s total days of attendance suggested that even after controlling for differences in program length, children attended more days when parents reported more need for childcare. The inclusion of program-level variables increased the amount of variance accounted for by 5.27%, resulting in a total amount of variance explained of 63.16%. Results from the model comparison tests indicated that the inclusion of new variables from each model building step significantly increased the goodness of fit of the model. For details on the change of variance explained and the goodness of fit by each step, see Table 7.

Summary

To better understand motivations behind after-school participation, this study examined several individual- and program-level characteristics that might be associated with youths’ voluntary participation and parents’ reasons for enrollment. Utilizing a multi-level analysis technique, the purpose of this study was twofold: first, to examine whether youths’ and parents’ program quality experiences were associated with reasons for participation; and second, even after controlling for these program quality factors, to determine the extent to which racial/ethnic factors might be linked to participation. We believe that a close examination of adolescents’ voluntary participation and their parents’ reasons for enrollment is especially important for 21st CCLC ASPs given the initiative’s strong emphasis on academic success for at-risk youth in addition to its general goal, similar to most ASPs, of keeping youth safe during out-of-school time (Naftzger et al., 2007).

The results indicated that female students reported higher voluntary participation rates than males. Also, two aspects of program quality were associated with youth voluntary participation: their overall program enjoyment and their perceptions of having challenging experiences. After controlling for these factors, sev-
eral significant racial/ethnic factors emerged. Specifically, Middle Eastern youth were found less likely to participate voluntarily than all other racial/ethnic groups. Moreover, as hypothesized, youth attending programs that had a higher concentration of their same-race/ethnicity peers or which reported greater culturally responsiveness were more likely to report voluntary participation.

With regard to parents’ reasons for enrolling their children in ASPs, parents were more likely to enroll younger children rather than older children for childcare reasons. Additionally, parents who felt the program was a learning environment emphasized both academic and childcare reasons for enrollment, parents who reported that the program spent the right amount of time on academics were more likely to enroll children for academic reasons, and parents who reported the program spent the right amount of time on recreation were more likely to enroll children for childcare reasons. After controlling for parents’ perceptions of program quality, racial/ethnic differences in reasons for enrollment were evident, with Middle Eastern/Arab parents emphasizing academic reasons for enrollment and Hispanic parents placing less importance on childcare support. An interaction between white race and gender indicated that white parents emphasized enrolling children for academic and childcare support less than their African-American counterparts, especially for their daughters. In addition, more stringent attendance policies were associated with parents’ greater likelihood of enrolling for both academic and childcare reasons.

Discussion and Implications

Program Experiences that Matter for Participation

One of the contributions that this study brings to the existing ASP literature is to consider participation as voluntary or compelled and to identify factors that can promote youth voluntary participation. The results indicated that youths’ perceptions of program quality predicted whether they viewed their participation as voluntary rather than compelled. Specifically, and perhaps not surprisingly, youths’ overall program enjoyment predicted their voluntary participation. However, even after controlling for overall program satisfaction, youths’ perception of the level of challenging activities available in the program was also significantly related to their voluntary participation—youth who reported a lack of challenging experiences in the ASPs were more likely to report that their participation was not of their own choice. This echoes much literature stressing that positive youth development is better facilitated when youth pursue tasks they find intrinsically motivating, take on meaningful responsibilities, and engage in work that is challenging and has social or civic significance (Eccles & Gootman, 2002; Gambone & Arbreton, 1997; Larson, Hansen, & Walker, 2005; Villarruel, Perkins, Borden, & Keith, 2003; Witt & Caldwell, 2005). Based on our results, it is imperative to ensure that adolescent participants are sufficiently challenged in ASPs to retain their active engagement.

Perceptions of program quality were also associated with parents’ reasons for enrolling youth in the 21st CCLC programs. Parents’ perceptions that the program formed a learning environment was linked to both types of reasons for enrollment, suggesting that regardless of the needs that impel parents to enroll their
children in ASPs, the availability of a meaningful learning environment for youth constitutes a primary concern. However, parents’ perceptions of the appropriate-ness of different types of activities were differentially associated with their reasons for enrollment. Parents who felt the program spent the right amount of time on academics were more likely to indicate that they enrolled their children for academic reasons, while parents who felt that the program spent the right amount of time on recreation were more likely to enroll their children to meet childcare needs. These results suggest that parents are aware of the emphases that different programs place on particular types of activities and make their decisions based on those program agendas. Alternatively, because this is a correlational study, these findings may reflect that parents who enroll their children for certain reasons form selective opinions about the appropriateness of the activities offered in a way that fit with those reasons. Notably, in programs with stricter attendance policies, parents were more likely to endorse both academic and childcare enrollment reasons, suggesting that more specific attendance policies may contribute to parents’ perceptions that programs have more benefits in both areas.

Participation in the Context of Race/Ethnicity, Gender and Age

Beyond program quality, another focus of this study was to examine links between racial/ethnic factors and voluntary or compelled participation. Interestingly, even after controlling for perceptions of program quality, factors associated with race/ethnicity showed notable relations, both with youths’ voluntary participation and with parents’ reasons for enrollment. With respect to group differences, compared to white parents, African-American parents were more likely to strongly endorse enrolling their children for both academic reasons and childcare need. This difference may be tied to the marginality hypothesis, suggesting that even within low-income schools, White parents may still have better access to economic and/or social resources and therefore are less reliant on ASPs than African-American parents (Fulbright-Anderson et al., 2005; Rothstein, 2004; Wells, Griffith, & Kritsonis, 2007). While overall, white parents emphasized enrollment needs less than African-American parents, they were more likely to report enrolling their sons than their daughters for academic or childcare supports. This may be due to perceptions by parents and teachers that girls have fewer behavioral or academic issues compared to boys (Campbell & Cooper, 1975; Izzo & Weissberg, 1999). In addition, Hispanic parents were also less likely to emphasize enrolling children to get childcare support compared to African-American parents. Informal interviews with local program staff have indicated that the Hispanic populations surveyed in this study were mostly Mexican immigrants, many of whom faced unemployment or underemployment. These families may have placed less emphasis on using ASPs for childcare support because adults were available at home during out-of-school hours, although more formal investigation is needed. Because the Middle Eastern/Arab sample was small, we tested all models excluding this group with no effect on the overall results, suggesting that the findings related to the Middle Eastern/Arab group were not random. Overall, Middle Eastern/Arab adolescents reported the lowest voluntary participation rate among all racial/ethnic groups—that is, they were more likely to feel compelled to attend by parents or
school personnel. Concurrently, Middle Eastern/Arab parents were most likely of all racial/ethnic groups to emphasize academic reasons for enrollment. This finding might be evidence of the ethnicity/subculture hypothesis and echoes the previous literature documenting the high expectations that Middle Eastern/Arab parents have for their children’s academic success (Ahmad, 2001; Archer, 2002; Tyrer & Ahmad, 2006). Given the discrepancy between the Middle Eastern/Arab parents’ and children’s responses, a tension might exist between the Middle Eastern/Arab youth and parents on ASP participation, with parents seeing ASP involvement as an academic support opportunity while the youth experience an extended school day. ASP practitioners need to explore the reasons behind the comparatively low motivation among Middle Eastern/Arab participants and examine ways to better blend recreation with academic learning so the needs of Middle Eastern families—academic enhancement from the perspective of parents and engaging, fun activities from the perspective of youth—can be accommodated.

Across racial/ethnic groups, youth voluntary participation was associated with a higher concentration of same-race/ethnicity peers in the program and a more culturally responsive program environment. These findings not only provide further support for the importance of using culturally responsive approaches to encourage youths’ participation (Gay, 2002; Goldstein & Noguera, 2006), but also highlight the need to address potential interracial conflicts and provide opportunities that facilitate cross-racial/ethnic friendships. Program practitioners need to be sensitive about the interracial dynamics in the programs and help ensure an inclusive environment for all youth.

In addition to racial/ethnic contributions, gender differences were found for adolescents’ voluntary participation and white parents’ reasons for enrollment. Regardless of ethnic group, female participants were more likely to report voluntary participation. Further investigation is needed to understand whether the program design, context, or other issues led to this difference. Professional practitioners need to be aware of the disparities between male and female adolescents’ motivations for participation and make sure that activities are compelling and engaging for both girls and boys.

Finally, results from the present study indicated that youth in higher grades were more likely to report voluntary participation than those in lower grades, and their parents were less likely to enroll them to meet childcare needs. Previous studies have indicated that youth involvement in ASPs or extracurricular activities decreases as they reach higher grade levels (McNeal, 1999; Vandell & Shumow, 1999). The findings in this study suggest that older youth who participate in the program have both been granted autonomy to choose their out-of-school time activities by their parents, who see less need for childcare in this group, and have chosen to attend the program. Given this context, program administrators may want to utilize youth councils or other mechanism to maintain these youths’ active involvement and to help “find the right hook” for attracting and retaining older youths’ ASP participation (Lauver & Little, 2005).

Limitations

Some limitations should be noted. First, youth surveys that asked about voluntary participation were collected at the end of the school year rather than at en-
VOLUNTARY PARTICIPATION AND REASONS FOR ENROLLMENT

Youth who were initially compelled to enroll by others but subsequently enjoyed the program may have reported that they voluntarily enrolled. Although this method does not capture the true reasons for enrollment, which may be helpful for understanding recruitment, it does provide insights about motivations for retention.

Second, the assessment of the degree to which the program was a culturally responsive environment was based on administrators’ self-reports of four general questions. Future literature would benefit from more pointed assessments of culturally responsive environment through program observations or other means. Similarly, measures of program quality were collected using youth and parent reports; although useful to understand individuals’ motivations for participating, more objective observations of program characteristics are critical to understanding the interplay between program quality and participation.

In addition, this study focused on motivation for participation and did not address barriers to participation. Lauver et al. (2004) summarized a number of barriers that inhibit ASP participation, including youths’ desire to relax and “hang out” with friends after school, desire or need to work, family responsibilities, boredom or disinterest, and transportation/safety issues. Moreover, previous studies have also addressed barriers tied to certain racial/ethnic groups, particularly reasons that parents of different cultural backgrounds might discourage ASP participation as suggested by the ethnicity/subculture hypothesis. For example, children of immigrant or refugee families often have responsibilities for earning, chores, or care of siblings (Perkins et al., 2007), and Muslim families may prohibit their children’s interactions with the opposite sex or disallow youth participation in some ASP activities (i.e., dancing, music, drama or swimming) which are seen as encouraging sexual feelings and/or the reversal of gender roles (Muslim Council of Britain, 2007).

Recommendations for Future Research

Given the limitation of the current study, several recommendations are made for future research. First, to capture youths’ true reasons for ASP participation, future studies may want to collect the information at the time when they first enroll for programs. Furthermore, external assessments that can capture different aspects of program quality at the point of service delivery or address issues related to program administrations’ cultural inclusiveness or responsiveness are highly recommended in order to gain a more in-depth understanding of how program quality and racial/ethnic factors can affect participation and program outcomes.

Last but not least, given the findings on the racial and gender differences in ASP participation, future researchers may want to employ qualitative research methods to further investigate the interplay between perceived barriers and benefits to participating in ASPs across different races, ethnicities, and cultures. We believe that this is especially important for ethnic minority groups, as little literature has addressed their needs and expectations, which may be very different from those of the mainstream culture. Future studies that focus on parents’ values and expectations for after-school programming, as well as how programs can be designed to help meet the expectations or reduce the conflicts between parents and adolescents, are highly recommended.
References


