

# Street Ball, Swim Team and the Sour Cream Machine: A Cluster Analysis of Out of School Time Participation Portfolios

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**Abstract** Adolescents spend only a fraction of their waking hours in school and what they do with the rest of their time varies dramatically. Despite this, research on out-of-school time has largely focused on structured programming. The authors analyzed data from the Educational Longitudinal Study of 2002 (ELS:2002) to examine the out-of-school time activity portfolios of 6,338 high school sophomores, accounting for time spent in school clubs and sports as well as 17 other activities. The analytical sample was balanced with respect to sex and racially and ethnically diverse: 49% female, 67% White, 10% Latino, 10% African American, and 6% Asian and Pacific Islander. Approximately 76% of the sample attended public schools, 30% were in the highest socioeconomic quartile, and 20% were in the lowest socioeconomic quartile. The authors identified five distinct out-of-school time activity portfolios based on a cluster analysis. The demographic profiles of students by portfolio type differed significantly with respect to sex, race/ethnicity, socioeconomic status, school type and location. Students by portfolio type also differed significantly in terms of measures of academic success, school behavior, victimization and perceptions of school climate, controlling for covariates. These findings underscore the importance of more complex considerations of adolescents' out-of-school time.

**Keywords** Out-of-school time · Activity portfolios · Adolescents

## Introduction

Young people spend only a fraction of their time in school. While the typical youth dedicates 25% of her waking hours to schoolwork, she allots nearly 50% of her time to recreational activities (Larson and Verma 1999). What do adolescents do with all of that “free” time? Minivans loaded with gear shuttle youth from swim team to piano lessons to Girl Scouts. Teenagers play street ball, watch television, talk on the phone or work the sour cream machine at Taco Bell. American teens have more discretionary time than teens in other industrialized societies, with both structured and unstructured activities competing for those hours (Larson 2001).

While adolescents' after-school choices vary widely, current out-of-school time research often focuses narrowly on sanctioned, structured programs like Boys' and Girls' Clubs and organized sports. Structured programs receive attention because research has shown that participants benefit in a variety of ways, ranging from improved academic achievement to higher self-esteem (Feldman and Matjasko 2005). But studying only structured programs overlooks the effects of everything else that adolescents do after school. Further, few studies profile who actually participates in out-of-school programs (Wimer et al. 2006) and how participation in structured programs, like chess club or the marching band, is related to participation in other after-school activities, such as pick-up basketball or paid work (Mortimer 2003). Understanding these interactions may help practitioners provide programming better suited to adolescents and assist researchers in pinpointing the role that each of these settings plays in supporting youth development.

Taking a holistic view of adolescents' out-of-school time engagements by including both organized and

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unstructured activities better explains student outcomes than does examining any one activity alone. Cooper et al. (1999) found that the joint effects of five after-school activities—homework, television viewing, extracurricular activities, other types of structured after-school groups, and paid work—nearly doubled the predictive power of any single activity. Bartko and Eccles (2003) investigated adolescents' out-of-school engagements across 11 activity domains, adding six activities to Cooper et al.'s (1999) categories: chores, pleasure reading, time with friends, volunteering, religion, and sports. Using a person-oriented analysis, they found that the resulting six clusters varied significantly across a range of psychosocial indicators and that more than one pathway was associated with psychosocial health. While these studies indicate the empirical value of looking holistically at out-of-school time and the appropriateness of cluster analysis in this pursuit, both studies rely on regional samples and do not make use of existing data on national samples of youth.

The present study serves two goals: to further document national trends in non-school activity participation and to further develop the portfolio approach in the study of out-of-school time. We examine participation in 18 extracurricular domains in terms of activity portfolios. Specifically, we answer the following research questions: (1) What are the national patterns of adolescent involvement in structured extracurricular activities, homework, paid employment, and unstructured leisure activities? (2) What are the demographic characteristics of youth participating in each of these out-of-school time activity portfolios? (3) How does participation in each activity portfolio correlate with perceived school climate, truancy, and academic achievement?

Our hypotheses are based upon our review of the literature on out-of-school activities and paid work. To test these hypotheses, we describe students' out-of-school time activity portfolios and how each activity portfolio correlates with distinct student demographic profiles and academic and behavioral indicators. We conclude by discussing the practical implications of this research.

### Out-of-School Activity Portfolios

More than 70% of American adolescents participate in at least one extracurricular activity (Feldman and Matjasko 2005). Studies link participation in extracurricular activities to numerous positive outcomes, including increased academic achievement (Broh 2002; Schreiber and Chambers 2002), lower dropout rates (Mahoney 2000; Mahoney and Cairns 1997), and psychosocial improvements, such as stronger self-image, positive social development, and reductions in risk-taking behavior (Eccles et al. 2003; Gordon et al. 2005). Involvement in extracurricular

activities is also associated with positive school-related attitudes and behaviors such as school connectedness and reduced truancy and delinquency (Darling et al. 2005; Fredricks and Eccles 2006a, b; Jordan and Nettles 2000; Thompson et al. 2006). Some studies suggest that extracurricular participation—specifically sports—may be linked to increased alcohol use (Barber et al. 2001; Eccles et al. 2003), while others disagree (Crosnoe 2002). Emergent research identifies significant mediating and moderating variables, including socioeconomic status, race, gender, activity type, and peer groups (Feldman and Matjasko 2005).

Participation in after-school programs correlates with positive academic and social outcomes for all adolescents, not just youth from families with high incomes who usually do better in school anyway. Bourdieu (1986) argues that youth who participate in structured after-school activities accrue education-related capital; thus, these activities serve to translate social background and class position into academic achievement. Through access to and participation in such activities, these privileged youth accumulate an invaluable advantage over their non-participating peers. Therefore, when disadvantaged youth participate in out-of-school activities, the achievement gap between students of high and low socioeconomic status shrinks, with the biggest benefits going to the most disadvantaged students (Lauer et al. 2006; Marsh and Kleitman 2002).

Yet students do not participate in structured activities at the same rate across racial, ethnic and socioeconomic lines. Youth from higher income families are more likely than their peers from lower income families to participate in all kinds of out-of-school time activities, in a greater number of activities and with greater frequency (Bouffard et al. 2006). Across most activities, White youth are overrepresented and Latino youth are underrepresented, while African American youth are neither. Although few studies have been done on why these participation rates differ, researchers speculate that racial and ethnic group differences may result from some of the factors driving socioeconomic gaps as well as from factors specific to different racial and ethnic groups, such as linguistic and cultural differences between families and activity providers (Bouffard et al. 2006). According to Feldman and Matjasko's (2005) review of the literature, few empirical investigations exist of participation and educational outcomes of adolescents from different racial and ethnic groups.

Likewise, whether the relationship between participation and educational outcomes differs by gender has yet to be thoroughly studied (Feldman and Matjasko 2005). Gender moderates the relationship between sports participation and math and science achievement; athletics are linked with higher scores for females but not males (Hanson and Kraus 1998). Gender also moderates the relationship between

sports participation, peer networks and academic achievement (Crosnoe 2001). However, outside of these studies of school sports, gender appears commonly as a control variable rather than as a predictor.

Although researchers and policy makers have amassed evidence of the value of structured after-school programming, the majority of studies are either program specific (Anderson-Butcher et al. 2003), region specific (Bartko and Eccles 2003; National Institute on Out-of-School Time 2005), or based on samples drawn from particular cross-sections of youth (Crosnoe 2002; Eccles et al. 2003; Mahoney 2000). Too few studies document national trends in out-of-school activity participation (Broh 2002; Marsh and Kleitman 2002; Tracy and Erkut 2002). To ameliorate this, we analyze a national sample of youth which enables us to comment on national trends in out-of-school time activity participation.

Structured programming, however, is only one item on the buffet of choices that adolescents face during non-school hours. Until now, researchers have looked at participation in extracurricular activities in isolation from everything else teenagers do after school. By ignoring alternate out-of-school time engagements—such as paid employment and unstructured leisure activities—researchers overlook what participants do in addition to extracurricular activities, as well as what non-participants do instead. This information may be especially valuable for understanding the participation patterns of youth of color, who are currently least likely to participate in structured activities (Bouffard et al. 2006). Additionally, this omission in the research fails to consider the possibility that an interaction exists between different types of engagements.

For example, as young people move through high school, they become more likely to work, and more likely to work longer hours. Even so, working students are just as likely to participate in homework, volunteering and extracurricular activities as are their non-working peers (Mortimer 2003). However, low socioeconomic status youth and youth who are less engaged in school tend to work more hours than their peers from high socioeconomic status backgrounds or who earn better grades (Mortimer 2003). For teenagers, more hours worked per week is correlated with more problem behaviors (Bachman and Schulenberg 1993; Steinberg and Dornbusch 1991). But does participation in extracurricular activities alter the relationship between work and delinquency? What about all of the other things that teenagers could be getting into away from school, such as hanging out at the mall or surfing the Internet?

By modeling adolescents' time in structured activities as one of many engagements instead of as their only after-school commitment, this study examines who participates in structured after-school programs, how participation in

these programs is related to involvement in a wider set of activities, and how patterns of extracurricular involvement are associated with school well-being and academic success. We operationalize Feldman and Matjasko's (2005) conception of out-of-school time activity portfolios, where the term "portfolio" refers to the full range of adolescents' out-of-school time experiences. Building on Bartko and Eccles' (2003) use of cluster analysis with regional data, we explore patterns of extracurricular activity using a national sample of youth. To extend the work of Bartko and Eccles (2003), we focused our cluster analysis on the relationship between students' out-of-school activity portfolio and their perceptions of school climate, reports of victimization and truancy, academic performance and academic honors.

## Hypotheses

Based on previous research, we expect to find generally high rates of participation in school-sponsored extracurricular activities, homework, paid employment and unstructured leisure activities, and that participation in one genre of out-of-school time activity does not preclude participation in others. However, we also hypothesize that White students and students from high socioeconomic status families participate in structured school-based and community-based activities at higher rates and average less hours working than their peers. Similarly, we expect that African American, Latino and students from low socioeconomic status families participate in paid work at higher rates and organized activities at a lower rate than their peers. Further, we expect to find that students whose activity portfolios average more time in school-based and/or community-based activities will have more positive perceptions of school climate, lower rates of problem behavior at school, less experience with victimization at school and higher levels of academic success than those students whose activity portfolios reflect less time in such activities.

## Method

### Data

We use data from the base-year of the public-use release of the Educational Longitudinal Study of 2002 (ELS:2002). ELS:2002 is sponsored by the National Center for Education Statistics (NCES) of the U.S. Department of Education. NCES conducted the base-year study through a contract with RTI International and its subcontractors in the spring of 2002 (Ingels et al. 2004).

In its base-year, ELS:2002 is nationally representative of schools in the U.S. that had a 10th grade and students who were in the 10th grade at the time of data collection. ELS:2002 followed a two-stage sampling process. Eligible schools were first randomly selected with a probability proportional to size. Catholic and other private schools were over-sampled. These schools provided attendance lists from which students were then randomly sampled. Latino and Asian and Pacific Islander students were over-sampled. There are 752 schools and 15,362 students in the ELS:2002 base-year sample.

Students completed the paper-and-pencil cognitive tests in reading and math and a questionnaire under the adult supervision of survey administrators and their assistants at school. The student questionnaire included questions about students' beliefs and opinions, their school experiences and activities, their plans for the future, money, work and their families. The cover page of the questionnaire included a description of the intended use of the data:

The data from this survey will be used by educators and by federal and state policy makers to address important issues facing the nation's schools: educational standards, high school course-taking patterns, dropping out of school, the education of the disadvantaged, the needs of language minority students, and the features of effective schools. (p. 1)

Depending on the school, these group administrations were scheduled during regular school hours, after school, on the weekend or during school holidays. Students who were absent on the survey day were either rescheduled for a make-up survey day or completed a computer-assisted telephone interview (CATI) instead. When there was concern about low response rates, students were either offered \$20 gift certificates for their participation or were entered into a raffle for a chance to win a \$20 gift certificate (Ingels et al. 2004).

## Sample

The cluster analysis procedure requires complete data. In other words, all cases must have non-missing values for all of the variables that are subject to the cluster analysis (i.e., activity measures). We carefully considered imputing the values of the activity variables that were missing as an alternative to dropping cases. While we acknowledge the arguments in favor of imputation (i.e., avoiding the substantial drop in sample size and the resultant statistically significant differences between the full and analytical samples in terms of student and school characteristics), we decided against imputation for several reasons.

The primary aim of this study is to examine the extent that different out-of-school time activities “hang together”

as activity portfolios and then describe the associations between activity portfolio types and student and school characteristics and school-based indicators. If we were to impute the missing values of individual activity measures, there would be two sets of variables that we would reasonably base our imputations on: other out-of-school time activities or student characteristics (since these are highly correlated with individual out-of-school time activity variables). Thus, if we imputed values for those activity variables that have missing data, we run the risk of distorting our findings of activity portfolios by inflating the correlation between out-of-school time activity variables or out-of-school time activity types and student demographic variables by imputing on the basis of them.

Analytically, we are relying on the correlations between out-of-school time activities to argue that activity portfolios exist. Were we to impute the missing out-of-school time activity values using other individual out-of-school time activity variables, we would be susceptible to critique that we have inflated the magnitude of the correlations and, in turn, may have exerted undue influence on the nature of our findings of out-of-school activity portfolios. Given the nature of our analyses and the aims of this study, imputing would mean that we would be using the same set of variables as both independent and predictor variables.

As such, we dropped all students with missing data related to out-of-school activity from the student sample, leaving an analytical sample of 6,338 students. Given the reduction in sample size, we conducted a missing case analysis to determine how our analytical sample differed from the overall ELS:2002 student sample. Table 1 displays descriptive statistics for the analytical sample as well as for the dropped cases. The analytical sample is balanced with respect to sex and is diverse in terms of students' race and ethnicity. Slightly less than a third of students identify as a racial or ethnic minority or as multi-racial ( $n = 1,990$ ). A greater proportion of students are in the highest quartile of socioeconomic status ( $n = 1,914$ ) than are in the lowest quartile ( $n = 1,198$ ). More than three-quarters of students attend public schools ( $n = 4,817$ ) and about half attend schools located in the suburbs ( $n = 3,163$ ).

The demographics of the analytical sample are significantly different from the cases that were dropped from the cluster analysis because of missing data. Compared to the dropped cases, the analytical sample has significantly lower percentage of females, students who identify as American Indian or Alaskan Native, Asian and Pacific Islander, African American or Latino, students who attend public or urban schools, and students in the lowest socioeconomic quartile. Compared to the dropped cases, the analytical sample has significantly higher percentages of students who identify as White, students who attend suburban or rural schools and students in the highest socioeconomic

**Table 1** Demographic characteristics of analytical and dropped student samples

| Student and school characteristics | Percent of analytical sample<br>( <i>n</i> ) | Percent of deleted cases |
|------------------------------------|--|--------------------------|
| Female                             | 49.2*<br>(3,118)                             | 51.0                     |
| Race                               |  |                          |
| American Indian or Alaskan Native  | .6*<br>(38)                                  | 1.0                      |
| Asian and Pacific Islander         | 5.9***<br>(374)                              | 12.1                     |
| African American                   | 9.6***<br>(608)                              | 15.8                     |
| Latino                             | 10.3***<br>(653)                             | 17.6                     |
| Multiracial                        | 5.0<br>(317)                                 | 4.7                      |
| White                              | 68.6***<br>(4,348)                           | 48.9                     |
| Lowest SES quartile                | 18.9***<br>(1,198)                           | 26.9                     |
| Highest SES quartile               | 30.2***<br>(1,914)                           | 26.9                     |
| Type of school                     |  |                          |
| Public school                      | 76.0***<br>(4,817)                           | 80.1                     |
| Location of school                 |  |                          |
| Urban                              | 29.7***<br>(1,882)                           | 35.8                     |
| Suburban                           | 49.9***<br>(3,163)                           | 47.0                     |
| Rural                              | 20.4***<br>(1,293)                           | 17.2                     |
| Number of cases                    | 6,338  | 9,024                    |

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Notes: Asterisks indicate the level of statistical significance of the mean difference between the analytical and dropped samples on each of the characteristics

quartile. Thus, while drawn from nationally representative data, the analytical sample is not itself nationally representative. Nonetheless, it is the largest and most diverse sample used so far in a study of out-of-school time. Unlike the data used in previous studies, this national sample of youth includes students from all geographic regions of the country (i.e., Northeast, South, Midwest and West) as well as those from diverse community settings (i.e., urban, suburban or rural). The analytical sample also comes closer to reflecting the racial, ethnic and socioeconomic diversity of students in the U.S. than do earlier studies where the

data were restricted to students within the same community or program and where, as a result, the student samples were more homogeneous and their diversity across these dimensions limited in both proportion and number.

## Measures

In keeping with the practice of the existing body of research on out-of-school activities, we include a set of student and school characteristics as covariates in our analyses. The other measures used in this study have been referred to by other researchers working with ELS:2002 or its predecessor, the National Educational Longitudinal Study of 1988 (NELS:88) with which ELS:2002 was designed to be analogous to permit comparative cohort studies.

## Out-of-School Activities

We measured the extent to which students participate in 15 of out-of-school activities via 18 survey items. This is the most extensive list of out-of-school activities used in a cluster analysis to date. The activities are: school-sponsored clubs or sports; homework (at school or elsewhere); watching videotapes or DVDs (on weekdays or weekends); playing video games (on weekdays or weekends); using the computer for fun; non-school-related reading; paid employment; visiting with friends at a hangout; driving or riding around; talking with friends on the phone; taking music, art, language or dance classes; taking sports lessons; playing non-school sports; working on hobbies, arts or crafts; and volunteering or performing community service.

Eight survey items were measured on a 4-point scale where, 1 = rarely or never, 2 = less than once a week, 3 = once or twice a week and 4 = everyday or almost everyday. The remaining ten survey items were measured in estimated hours per week. These are: school-sponsored clubs or sports; homework (at school or elsewhere); watching videotapes or DVDs (on weekdays or weekends); playing video games (on weekdays or weekends); using the computer for fun; non-school-related reading; and paid employment.

We recoded the ten items measured in hours per week into 4-point scales based on their distributions so that the cluster analysis would not be disproportionately influenced by variables with wider ranges. Five items were transformed such that: 1 = 0 h, 2 = 1–2 h, 3 = 3–4 h, and 4 = 5–6 h per week. These items were: watching videotapes or DVDs on weekdays (range: 0–6 h) and weekends (range: 0–6 h), playing video games on weekdays (range: 0–6 h) and weekends (range: 0–6 h), and using the computer for fun (range: 0–6 h). The remaining five items were recoded such that 1 = 0 h, 2 = 1–10 h, 3 = 11–20 h, and



4 = more than 20 h. These items were: extracurricular activities (range: 0–21 h), homework in school (range: 0–21 h) and outside of school (range: 0–26 h), non-school-related reading (range: 0–21 h), and work in job (range: 0–41 h).

### School Climate

The ELS:2002 student questionnaire asks students to describe their perception of their schools and teachers. Specifically, students are asked a series of questions about the nature of their learning environment: perceptions of school climate, the quality of teaching and their experiences with teachers (Ingels et al. 2005). These survey items are similar to those included in the NELS:88.

Students were asked to describe the extent to which they agreed with the following statements on a 4-point scale where 1 = strongly disagree, 2 = disagree, 3 = agree and 4 = strongly agree: students get along well with teachers; there is real school spirit; students make friends with students of other racial and ethnic groups; other students often disrupt class; the teaching is good; teachers are interested in students; when I work hard on schoolwork, my teachers praise my effort; in class I often feel “put down” by my teachers; in class I often feel “put down” by other students; I do not feel safe at this school; disruptions by other students get in the way of my learning; misbehaving students often get away with it; there are gangs in school; and fights often occur between different racial or ethnic groups. We recoded the items so that higher values are associated with more positive perceptions. School climate was measured as the average of all 14 survey items (Cronbach’s  $\alpha = .79$ ).

### Victimization at School

Victimization at school was measured as the average of eight items (Cronbach’s  $\alpha = .73$ ) intended to describe students’ experiences with school crime, threat or violence (Ingels et al. 2005). Students were asked how often they had experienced the following at school in the previous semester: something stolen was from them; someone offered to sell them drugs; someone threatened to hurt them; they got into a physical fight; someone hit them; someone used strong-arm or forceful methods to get money or things from them; someone purposely damaged or destroyed their belongings; and someone bullied them or picked on them. Students answered on a 3-point scale where 0 = never, 1 = once or twice and 2 = more than twice.

### Truancy and Delinquency

Truancy and delinquency were measured as the average of seven items (Cronbach’s  $\alpha = .70$ ) that were also included

in NELS:88 and have been used by other researchers to describe delinquency or misconduct (Parker and Benson 2004). Students indicated how frequently during the previous semester they had cut or skipped classes, had been late to school, absent from school, in trouble for not following school rules, put on in-school suspension, suspended or put on probation, or transferred to another school for disciplinary reasons. Responses were scored on a 5-point scale where 0 = never, 1 = 1–2 times, 2 = 3–6 times, 3 = 7–9 times and 4 = more than 10 times.

### Academic Achievement

Although school-specific achievement variables, such as grade point average, are not included in ELS:2002, cognitive tests in reading and mathematics were administered as part of the base-year data collection. We used students’ cognitive test scores in reading and mathematics as a proxy for their academic performance. We are particularly interested in students in the lowest and highest achievement quartiles, as indicated in the public-use dataset. These quartiles were constructed by ELS:2002 and were calculated by comparing each student’s composite score to those of the population of 10th graders in spring 2002.

### Honors

The receipt of honors or other recognitions at school was measured as the sum of six survey items. Students were asked to indicate which of the following was true for them since the 9th grade: they had won an academic honor; received special recognition for good attendance; received special recognition for good grades or honor roll; received a community service award; participated in a science, math or technology fair; or participated in a vocational/technical skills competition.

### Covariates

We included student’s sex, race or ethnicity, socioeconomic status, type of school attended and location of school attended as covariates in our analysis. These covariates are standard in research on out-of-school activities. Sex was a dichotomous variable where 1 = female. Race/ethnicity was represented by six mutually exclusive self-reported categories: Alaskan Native or Native American, Asian, Native Hawaiian or other Pacific Islander, White, African American, Latino (of any race) or multi-racial. Socioeconomic status was expressed as quartiles and constructed by ELS:2002 from five equally weighted standardized components: mother’s education, father’s education, family income, mother’s occupation and father’s occupation. We used the version of this variable

that was based on the 1989 General Social Survey (GSS) occupational prestige scores. School type was divided into public, Catholic, and other private school. We used three dichotomous variables to measure whether students attended a school located in an urban, suburban or rural area.

### Procedure

Like Bartko and Eccles (2003), we employed a person-centered approach to out-of-school engagements. We performed a cluster analysis using SAS PROC FASTCLUS. We determined the number of clusters based on an examination of the dendrogram, the conceptual distinction between the groups, and the robustness of their membership size (we did not want any group to contain less than 10% of the sample). This yielded five out-of-school activity portfolios. Table 2 displays the means and standard deviations for each of the 18 out-of-school activity measures for each of the five out-of-school portfolios. We used analyses of variance (ANOVAs) to determine whether there were significant differences in the individual items across portfolios. We then performed a series of post hoc *t*-tests to identify statistically significant differences between groups.

Next, we checked whether there were differences in the demographic profile of each of the out-of-school portfolios by sex, race/ethnicity, socioeconomic status, school type and location. We used chi-square tests of independence to determine whether students' out-of-school portfolios were significantly related to these demographic variables. We then checked residuals to isolate the differences between particular groups. We tested for statistically significant inter-group differences as well as differences from the sample average (Table 3).

In the last set of analyses, we examined whether the out-of-school activity portfolios were significantly different with regards to school climate, victimization, delinquency, academic performance, and honors. We tested for significant differences between portfolios by either ANOVA or chi-square tests of independence according to the nature of the indicator variable. We then tested whether portfolios were significantly different after controlling for covariates (Table 4). For the four continuous indicators, we estimated multiple regressions models; we estimated logistic regression models for the two dichotomous indicators.

## Results

### Out-of-School Activity Portfolios

The cluster analysis yielded five distinct out-of-school activity portfolios. Table 2 shows the means and standard

deviations of the out-of-school activities by portfolio type. The 5 clusters differ significantly on all 18 of the activity indicators.

Group 1 (Social) makes up 39% of the sample and is characterized by low involvement in school clubs and sports and high social involvement. Youth in the Social group spend significantly more time than average hanging out with friends, driving or riding around, and talking with friends on the telephone. They also report higher than average involvement in taking music, art, language or dance classes, pursuing hobbies, arts or crafts, volunteering or doing community service and being employed. The Social group reports less than average time spent on school clubs and sports, doing homework or reading outside of school, watching videotapes or DVDs, playing video games or using computers for fun and sports-related activities. Youth in the Social group are average with respect to the time that they spend on homework at school.

Group 2 (All-Around) makes up 15% of the sample and reports significantly higher than average levels of involvement in all but two of the out-of-school activities. Students in the All-Around group report significantly lower levels of employment and are as involved in hobbies, arts or crafts as is the average student in the sample.

Group 3 (Unstructured Recreation) makes up 18% of the sample and stands apart as the group with the lowest levels of academic and enrichment activities outside of school. Students in the Unstructured Recreation group are also significantly lower than average on time spent on social activities such as driving or riding around or talking with friends on the phone. However, these youth do spend significantly more time watching videotapes or DVDs or playing video games, playing non-school sports and hanging out with friends. The Unstructured Recreation group reports average levels of employment.

The distinguishing feature of Group 4 (Employed) is a significantly higher than average level of employment. The Employed group makes up 11% of the sample. Youth in this group spend less time than average on social activities, enrichment activities outside of school and volunteering or community service. They report average levels of involvement in school clubs and sports. Relative to the other groups, students in the Employed group spend a lot of time playing video games, on the computer and non-school reading. They are much less likely to be involved in non-school sports or sports lessons than students in other groups.

Group 5 (Study) makes up 18% of the sample and is characterized by significantly higher than average time spent on homework and non-school reading. Students in the Study group report about average involvement in school clubs and sports. They report significantly less than average time spent on the other out-of-school engagements, including social activities.

**Table 2** Means and standard deviations of the 18 out-of-school time activities by activity portfolio

| Out-of-school time activities         | Sample         | Group 1<br>Social              | Group 2<br>All-Around          | Group 3<br>Unstruc. Rec.       | Group 4<br>Employed            | Group 5<br>Study               | F-values                    |
|---------------------------------------|----------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|-----------------------------|
| School clubs and sports               | 1.86<br>(.75)  | 1.80 <sub>23</sub><br>(.71)    | 2.35 <sub>1345</sub><br>(.70)  | 1.54 <sub>1245</sub><br>(.65)  | 1.89 <sub>23</sub><br>(.76)    | 1.86 <sub>23</sub><br>(.73)    | $F(4,6333) = 173.36^{***}$  |
| Homework (at school)                  | 2.07<br>(.50)  | 2.07 <sub>2345</sub><br>(.48)  | 2.16 <sub>135</sub><br>(.54)   | 1.99 <sub>124</sub><br>(.46)   | 2.16 <sub>135</sub><br>(.61)   | 2.01 <sub>124</sub><br>(.47)   | $F(4,6333) = 22.86^{***}$   |
| Homework (elsewhere)                  | 2.12<br>(.56)  | 2.10 <sub>2345</sub><br>(.51)  | 2.22 <sub>13</sub><br>(.60)    | 1.95 <sub>1245</sub><br>(.48)  | 2.23 <sub>13</sub><br>(.65)    | 2.17 <sub>13</sub><br>(.60)    | $F(4,6333) = 45.15^{***}$   |
| Watch videotapes or DVDs (weekdays)   | 2.66<br>(.98)  | 2.37 <sub>2345</sub><br>(.88)  | 2.87 <sub>1345</sub><br>(.93)  | 3.24 <sub>125</sub><br>(.84)   | 3.34 <sub>125</sub><br>(.81)   | 2.14 <sub>1234</sub><br>(.84)  | $F(4,6333) = 414.40^{***}$  |
| Watch videotapes or DVDs (weekends)   | 3.13<br>(.90)  | 2.81 <sub>234</sub><br>(.90)   | 3.45 <sub>145</sub><br>(.73)   | 3.55 <sub>145</sub><br>(.69)   | 3.72 <sub>1235</sub><br>(.59)  | 2.78 <sub>234</sub><br>(.91)   | $F(4,6333) = 347.72^{***}$  |
| Play video games (weekdays)           | 1.68<br>(.88)  | 1.26 <sub>2345</sub><br>(.49)  | 1.87 <sub>1345</sub><br>(.91)  | 2.37 <sub>125</sub><br>(.96)   | 2.32 <sub>125</sub><br>(1.03)  | 1.37 <sub>1234</sub><br>(.60)  | $F(4,6333) = 629.09^{***}$  |
| Play video games (weekends)           | 2.01<br>(1.05) | 1.41 <sub>2345</sub><br>(.60)  | 2.32 <sub>1345</sub><br>(1.06) | 2.86 <sub>125</sub><br>(.99)   | 2.83 <sub>125</sub><br>(1.08)  | 1.74 <sub>1234</sub><br>(.85)  | $F(4,6333) = 796.31^{***}$  |
| Use computers for fun                 | 2.33<br>(.86)  | 2.21 <sub>2345</sub><br>(.78)  | 2.46 <sub>1345</sub><br>(.82)  | 2.31 <sub>1245</sub><br>(.89)  | 3.09 <sub>1235</sub><br>(.87)  | 2.04 <sub>1234</sub><br>(.72)  | $F(4,6333) = 212.06^{***}$  |
| Non-school reading                    | 1.77<br>(.55)  | 1.74 <sub>2345</sub><br>(.51)  | 1.81 <sub>134</sub><br>(.53)   | 1.67 <sub>1245</sub><br>(.56)  | 1.95 <sub>1235</sub><br>(.62)  | 1.81 <sub>134</sub><br>(.56)   | $F(4,6333) = 31.52^{***}$   |
| Hangout with friends                  | 3.15<br>(.85)  | 3.45 <sub>345</sub><br>(.61)   | 3.40 <sub>45</sub><br>(.66)    | 3.32 <sub>145</sub><br>(.75)   | 2.84 <sub>1235</sub><br>(.88)  | 2.29 <sub>1234</sub><br>(.91)  | $F(4,6333) = 554.80^{***}$  |
| Drive or ride around                  | 2.73<br>(1.14) | 3.22 <sub>345</sub><br>(.89)   | 3.16 <sub>345</sub><br>(.94)   | 2.66 <sub>1245</sub><br>(1.12) | 2.35 <sub>1235</sub><br>(1.12) | 1.59 <sub>1234</sub><br>(.85)  | $F(4,6333) = 621.53^{***}$  |
| Talk with friends on the phone        | 3.21<br>(1.03) | 3.64 <sub>345</sub><br>(.67)   | 3.55 <sub>35</sub><br>(.74)    | 2.75 <sub>1245</sub><br>(1.13) | 3.42 <sub>135</sub><br>(.85)   | 2.26 <sub>1234</sub><br>(1.11) | $F(4,6333) = 588.55^{***}$  |
| Music, art, language or dance classes | 1.58<br>(1.04) | 1.75 <sub>2345</sub><br>(1.14) | 2.08 <sub>1345</sub><br>(1.27) | 1.14 <sub>1245</sub><br>(.53)  | 1.37 <sub>123</sub><br>(.85)   | 1.33 <sub>123</sub><br>(.78)   | $F(4,6333) = 157.73^{***}$  |
| Sports lessons                        | 1.73<br>(1.15) | 1.50 <sub>234</sub><br>(.94)   | 3.58 <sub>1345</sub><br>(.71)  | 1.30 <sub>125</sub><br>(.71)   | 1.29 <sub>125</sub><br>(.77)   | 1.42 <sub>234</sub><br>(.93)   | $F(4,6333) = 1314.63^{***}$ |
| Non-school sports                     | 2.06<br>(1.17) | 1.92 <sub>2345</sub><br>(1.10) | 3.08 <sub>1345</sub><br>(1.04) | 2.64 <sub>1245</sub><br>(1.12) | 1.22 <sub>1235</sub><br>(.57)  | 1.43 <sub>1234</sub><br>(.84)  | $F(4,6333) = 576.64^{***}$  |
| Hobbies, arts or crafts               | 2.27<br>(1.09) | 2.41 <sub>5</sub><br>(1.07)    | 2.32 <sub>5</sub><br>(1.06)    | 2.42 <sub>5</sub><br>(1.11)    | 2.40 <sub>5</sub><br>(1.13)    | 1.73 <sub>1234</sub><br>(.93)  | $F(4,6333) = 91.51^{***}$   |
| Volunteering or community service     | 1.49<br>(.75)  | 1.53 <sub>2345</sub><br>(.76)  | 1.80 <sub>1345</sub><br>(.88)  | 1.26 <sub>1245</sub><br>(.57)  | 1.43 <sub>123</sub><br>(.74)   | 1.39 <sub>123</sub><br>(.69)   | $F(4,6333) = 76.87^{***}$   |
| Employed                              | 2.81<br>(.83)  | 2.85 <sub>245</sub><br>(.82)   | 2.71 <sub>14</sub><br>(.83)    | 2.78 <sub>4</sub><br>(.82)     | 2.96 <sub>1235</sub><br>(.83)  | 2.74 <sub>14</sub><br>(.85)    | $F(4,6333) = 13.10^{***}$   |
| N                                     | 6,338          | 2,475                          | 940                            | 1,113                          | 696                            | 1,114                          |                             |
| Percent of total                      |                | 39                             | 15                             | 18                             | 11                             | 18                             |                             |

*Note:* In each cell, the subscripts indicate the groups with which the given (column) group is significantly different on the particular out-of-school activity

### Demographic Profiles of Out-of-School Activity Portfolios

Table 3 shows that the demographic profiles of the five activity portfolio groups are distinct by sex, race/ethnicity, socioeconomic status, school type and location.

Females and White students are over-represented in Group 1 (Social). While accounting for 49% of the overall sample, females make up about 66% of the Social group. White students are 75% of the Social group and 69% of the overall sample. Minority students and students attending urban schools are under-represented in the Social group.



**Table 3** Demographic profile of each of the five out-of-school time activity portfolios

| Student and school characteristics | Sample | Group 1<br>Social    | Group 2<br>All-Around | Group 3<br>Unstruct. Rec. | Group 4<br>Employed | Group 5<br>Study     | Significance test           |
|------------------------------------|--------|----------------------|-----------------------|---------------------------|---------------------|----------------------|-----------------------------|
| Female                             | 49.2   | 65.8 <sub>2345</sub> | 43.3 <sub>135</sub>   | 20.1 <sub>1,245</sub>     | 45.1 <sub>13</sub>  | 48.8 <sub>123</sub>  | $\chi^2(4) = 667.71^{***}$  |
| Race                               |        |                      |                       |                           |                     |                      | $\chi^2(20) = 152.73^{***}$ |
| American Indian or Alaskan Native  | .6     | .5                   | .6                    | 1.2                       | .6                  | .4                   |                             |
| Asian and Pacific Islander         | 5.9    | 4.3 <sub>345</sub>   | 4.8 <sub>35</sub>     | 7.4 <sub>12</sub>         | 6.9 <sub>1</sub>    | 8.5 <sub>12</sub>    |                             |
| African American                   | 9.6    | 7.2 <sub>234</sub>   | 10.5 <sub>14</sub>    | 12.5 <sub>15</sub>        | 14.9 <sub>125</sub> | 8.1 <sub>34</sub>    |                             |
| Latino                             | 10.3   | 8.5 <sub>35</sub>    | 10.0                  | 12.2 <sub>1</sub>         | 10.8                | 12.0 <sub>1</sub>    |                             |
| Multiracial                        | 5.0    | 4.4 <sub>4</sub>     | 4.9 <sub>4</sub>      | 5.5 <sub>4</sub>          | 8.0 <sub>1235</sub> | 3.9 <sub>4</sub>     |                             |
| White                              | 68.6   | 75.1 <sub>2345</sub> | 69.1 <sub>134</sub>   | 61.3 <sub>125</sub>       | 58.8 <sub>125</sub> | 67.1 <sub>134</sub>  |                             |
| Socioeconomic status               |        |                      |                       |                           |                     |                      | $\chi^2(12) = 100.23^{***}$ |
| Lowest SES quartile                | 18.9   | 18.1 <sub>234</sub>  | 13.3 <sub>1345</sub>  | 24.2 <sub>125</sub>       | 21.7 <sub>12</sub>  | 18.6 <sub>23</sub>   |                             |
| Highest SES quartile               | 30.2   | 31.3 <sub>234</sub>  | 38.8 <sub>1345</sub>  | 23.0 <sub>125</sub>       | 24.3 <sub>125</sub> | 31.5 <sub>234</sub>  |                             |
| Type of school                     |        |                      |                       |                           |                     |                      | $\chi^2(8) = 68.38^{***}$   |
| Public                             | 76.0   | 75.6 <sub>23</sub>   | 70.3 <sub>134</sub>   | 82.3 <sub>1245</sub>      | 78.0 <sub>235</sub> | 73.8 <sub>34</sub>   |                             |
| Catholic                           | 14.8   | 15.2 <sub>23</sub>   | 19.6 <sub>1345</sub>  | 11.6 <sub>12</sub>        | 14.5 <sub>2</sub>   | 13.1 <sub>2</sub>    |                             |
| Other private                      | 9.3    | 9.2 <sub>35</sub>    | 10.1 <sub>35</sub>    | 6.1 <sub>125</sub>        | 7.5 <sub>5</sub>    | 13.1 <sub>1234</sub> |                             |
| Location of school                 |        |                      |                       |                           |                     |                      | $\chi^2(8) = 20.29^{**}$    |
| Urban                              | 29.7   | 28.0 <sub>2</sub>    | 34.4 <sub>13</sub>    | 28.0 <sub>2</sub>         | 31.0                | 30.5                 |                             |
| Suburban                           | 49.9   | 51.3 <sub>25</sub>   | 47.4 <sub>13</sub>    | 52.1 <sub>25</sub>        | 48.7                | 47.3 <sub>13</sub>   |                             |
| Rural                              | 20.4   | 20.7                 | 18.2 <sub>5</sub>     | 19.9                      | 20.3                | 22.2 <sub>2</sub>    |                             |

*Note:* In each cell, the subscripts indicate the groups with which the given (column) group is significantly different on the particular characteristic

**Table 4** Indicator variable averages by out-of-school time activity portfolio group

| Indicator variables              | Sample        | Group 1<br>Social            | Group 2<br>All-Around        | Group 3<br>Unstruct. Rec.    | Group 4<br>Employed          | Group 5<br>Study              | Significance test          |
|----------------------------------|---------------|------------------------------|------------------------------|------------------------------|------------------------------|-------------------------------|----------------------------|
| Perceived school climate         | 2.86<br>(.38) | 2.87 <sub>5</sub><br>(.34)   | 2.89 <sub>3</sub><br>(.38)   | 2.81 <sub>25</sub><br>(.38)  | 2.85<br>(.39)                | 2.90 <sub>13</sub><br>(.39)   | $F(4, 6333) = 9.23^{***}$  |
| Victimization at school          | 1.26<br>(.31) | 1.25 <sub>5</sub><br>(.30)   | 1.29 <sub>5</sub><br>(.33)   | 1.31 <sub>5</sub><br>(.34)   | 1.29 <sub>5</sub><br>(.34)   | 1.22 <sub>1234</sub><br>(.29) | $F(4, 6332) = 15.71^{***}$ |
| Honors or recognitions at school | 1.4<br>(1.3)  | 1.4 <sub>235</sub><br>(1.3)  | 1.7 <sub>1345</sub><br>(1.3) | 1.1 <sub>1245</sub><br>(1.2) | 1.4 <sub>235</sub><br>(1.3)  | 1.5 <sub>1234</sub><br>(1.3)  | $F(4, 6325) = 35.80^{***}$ |
| Truancy and delinquency          | 1.63<br>(.50) | 1.66 <sub>245</sub><br>(.50) | 1.62 <sub>135</sub><br>(.48) | 1.73 <sub>245</sub><br>(.56) | 1.62 <sub>135</sub><br>(.49) | 1.49 <sub>1234</sub><br>(.39) | $F(4, 6332) = 38.45^{***}$ |
| Lowest achievement quartile      | 17.0          | 15.4                         | 14.5                         | 21.5                         | 19.5                         | 16.5                          | $\chi^2(4) = 28.22^{***}$  |
| Highest achievement quartile     | 31.5          | 31.6 <sub>5</sub>            | 30.4 <sub>45</sub>           | 23.9 <sub>45</sub>           | 28.2 <sub>235</sub>          | 42.1 <sub>1234</sub>          | $\chi^2(4) = 91.86^{***}$  |

*Notes:* The means displayed are observed averages and are not the results of estimated models. The significance tests shown test these mean differences across out-of-school time activity portfolio groups. In each cell, the subscripts indicate the groups with which the given (column) group is significantly different on the particular indicator, controlling for the set of covariates

Group 2 (All-Around) has significantly more students than average in the highest socioeconomic quartile and students attending Catholic or urban schools. Nearly 39% of students in the All-Around group are in the highest socioeconomic quartile compared to 30% of the students in the overall sample. Females, students attending public or rural schools and students in the lowest socioeconomic quartile are significantly under-represented. Only 13% of

the students in this group are in the lowest socioeconomic quartile compared to 19% of students overall.

Group 3 (Unstructured Recreation) is disproportionately comprised of male and minority students. Eighty percent of the Unstructured Recreation group is male, 1.2% identifies as American Indian or Alaskan Native, 7.4% as Asian or Pacific Islander, 12.5% as African American and 12.2% as Latino. Students attending public schools and students in

the lowest socioeconomic quartile are also over-represented in this group.

African American students are significantly over-represented in Group 4 (Employed), as are students in the lowest socioeconomic quartile. About 22% of students in the Employed group are in the lowest socioeconomic quartile and 24% are in the highest socioeconomic quartile. This is compared to 19% and 30% of the overall sample, respectively. The Employed group has significantly lower than average percentage of females, White students and those who attend non-Catholic private schools.

Group 5 (Study) has higher than average representation of Asian and Pacific Islander and Latino students, as well as students who attend non-Catholic private schools. While Asian and Pacific Islander students account for 6% of the overall sample and Latino students 10%, they make up nearly 9% and 12% of the Study group, respectively. Thirteen percent of students in the Study group attend non-Catholic private schools compared to 9% of students overall.

#### Out-of-School Activity Portfolios and Student Perceptions and Behaviors

Results of analyses of variance show that the out-of-school portfolio groups differ significantly on each of the six attitudinal and behavioral indicators. The portfolio averages and standard deviations for each of the indicators are provided in Table 4. Also, controlling for sex, race/ethnicity, socioeconomic status, school type and location, there remain significant differences between portfolios on the indicators.

Students in Group 3 (Unstructured Recreation) report the most negative perceptions of school climate. These students have significantly more negative things to say about their school climate than students in Group 2 (All-Around) and Group 5 (Study). In contrast, students in the Study portfolio perceive their school climate most positively. These students have significantly more positive things to say about their school climate than Group 1 (Social) and the Unstructured Recreation portfolio. The Study portfolio also reports significantly lower levels of victimization and truancy than any of the other portfolios.

The highest levels of truancy are reported by the Unstructured Recreation portfolio. Their truancy is significantly higher than all groups except Social (Group 1) when controlling for the covariates. Students in the Unstructured Recreation portfolio (Group 3) are significantly less likely to report honors than any other portfolio. At the other extreme is the All-Around group (Group 2), who report significantly more honors than any of the other groups.

We observed differences in the percentage of students in each of the out-of-school activity portfolios in the lowest quartile of academic achievement. For example, All-Around (Group 2) has the lowest ratio of lowest performing students while Unstructured Recreation (Group 3) has the highest percentage of these students. However, once the student and school characteristics are controlled for, the five activity portfolio groups are statistically indistinguishable on this indicator.

There are also statistically significant differences between the out-of-school portfolio groups with regards to percentages of youth in the highest academic achievement quartile, net of the covariates. The Study portfolio (Group 5) has a significantly higher percentage of students in the highest achievement quartile than any other group, controlling for the covariates. The Unstructured Recreation portfolio group (Group 3) has the lowest ratio of its students in the highest achievement quartile. The percentage of students in the highest academic achievement quartile in the Unstructured Recreation group is significantly lower than the percentages of students in this quartile that are found in the Employed (Group 4) or Study (Group 5) groups.

#### Discussion

Studying out-of-school activity portfolios, rather than looking at each activity separately, reveals a more complete picture of what youth do outside of school. It provides a holistic explanation of how their choices are associated with school climate, truancy, and academic achievement, and how participation patterns vary significantly by gender, race/ethnicity, socioeconomic status, and school type. As predicted, we found generally high rates of participation in school-sponsored extracurricular activities, homework, paid employment and unstructured leisure activities, and participation in one genre of out-of-school time activity did not preclude participation in others. Taken as a whole, these findings underscore the importance of a more complex consideration of what youth do during their non-school hours.

Unlike Bartko and Eccles (2003), we found no evidence of “uninvolved” students. Each portfolio group participates more than average in at least two out-of-school activities. However, not all of the groups participate in structured activities and therefore may appear to be uninvolved on surveys that measure only structured activities. For example, the Study group does more than average homework and leisure reading, neither of which would appear on surveys of structured activities. By including a broader list of out-of-school activities, we dispel the misconception that some students simply sit idle.

Specifically, our analysis suggests five out-of-school time activity portfolios: Social, All-Around, Unstructured Recreation, Employed, and Study. While the portfolios were created based on out-of-school participation only, each group is distinct with regards to student and school characteristics. The demographic patterns in participation suggest that opportunities to participate and/or activity preferences are structured according to gender, socioeconomic status, race/ethnicity and geography. Some differences may be matters of preference or socialization; for example, it may not be surprising that males spend more time playing video games than females. But our findings raise serious questions about how and when activity portfolios seem to be the by-products of opportunity, given the significant differences between the groups along socioeconomic status, gender and race/ethnicity. This is especially interesting given the correlation between the activity portfolios and academic, behavioral and school climate indicators.

We theorized that White students and students from high socioeconomic status families would participate in structured school-based and community-based activities at higher rates (Bouffard et al. 2006), average less hours working than their peers (Mortimer 2003), and that activity portfolios averaging more time in school-based and/or community-based activities would have more positive perceptions of school climate, lower rates of victimization, truancy and delinquency at school and greater academic success (Feldman and Matjasko 2005). In the end, however, the out-of-school time activities of the three portfolio groups that garner generally positive indicators vary drastically.

The patterns of Group 1 (Social) both contradict and support our hypotheses. Group 1 consists of a disproportionate number of White females. Unlike Bouffard et al.'s (2006) account of participation patterns in which White youth are overrepresented in nearly every activity, these students report more unstructured social time and structured non-school activities than average, but less time participating school-based clubs and sports, academic enrichment outside of school, other sports activities and electronic media. Yet, in agreement with Barber et al. (2005) finding that girls are more likely to participate in community based "pro-social activities" than boys, it is less striking that this group is predominantly female. While it is not surprising that this group maintains fairly average academic and school climate indicators (Fredricks and Eccles 2006a), that this group has the second highest level of truancy and delinquency should prompt further research into the relationship between activity location and school attendance. These findings reveal the existence of a group of mostly female students whose (potentially) at-risk status is perhaps obscured by their average academic success.

While truancy and delinquency tend to be coincident with low academic achievement, that is not the case with this group of students. By settling into the middle of the academic pack, these young women may stay under the disciplinary radar of their schools. While by no means is there evidence here that suggests that these are "bad girls," our work does suggest that schools may not be aware of this group of students as a potentially susceptible to truant and delinquent behavior given their unproblematic academic records. Efforts to enhance the involvement of students in school-based activities and extracurricular programming should be examined to assess the extent to which they reach this population of young women.

Group 2 (All-Around), on the other hand, is evidence of Lareau's (2003) concerted cultivation approach to childrearing, a trademark of upper and middle class families. This portfolio group participates in every activity more than average, except paid work. Not surprisingly, this group is made up of significantly fewer students from the lowest socioeconomic quartile, significantly more students from the highest socioeconomic quartile, and fewer students in public schools than any other group. The students in this group benefit from the structures in which they are embedded; they have a wide range of opportunities—both in and outside of school—and take advantage of them. But just because these students have a robust out-of-school portfolio, does not mean they are better off with regards to all indicators. Contrary to Fredricks and Eccles (2006a) finding that greater involvement in extracurricular activities is associated with academic adjustment, psychological competencies and positive peer contexts, our analyses show that All-Around students report the second highest rates of victimization of any group, and the percentage of students in the highest achievement quartile is less than the sample mean. The lower than average representation of the All-Around group in the highest academic achievement quartile suggests that these students may over extend themselves. Their extensive out-of-school time involvements may be taking a toll on their academic work.

The explanation for the heightened level of self-reported victimization for this group of youth remains unclear. The increased social interaction which results from their high level of activity participation may be accompanied by conflict. As such, these students' victimization may be an unforeseen cost of their involvement in a wide range of out-of-school time activities through which they interact with many different types and groups of people. It may also be the case that youth in the All-Around group are victimized at a greater rate due to their heightened visibility in the communities in which they are engaged in an assortment of out-of-school time activities.

In a departure from Groups 1 and 2, Group 5 (Study) puts academically oriented out-of-school time activities

ahead of all others. This group also stands out because it has the most positive assessment of school climate, lowest level of victimization and truancy, highest level of honors, and most students in the highest achievement quartile. With regards to socioeconomic status, the Study group is about average, but a significantly higher number of students attend non-Catholic private schools than any other group.

Asian and Pacific Islander and Latino youth are over-represented in this group. Given this confluence of demographic factors, we suspect this out-of-school activity portfolio consists of students whose families place a high value on education as a means of mobility and success, particularly parents who want their children to attain more education than they have had and the children of first-generation college graduates.

Studies of immigrant youth show that first and second generation Americans out-perform their peers academically (Kao and Tienda 1995). Given the high percentage of Asian and Pacific Islanders and Latinos in Group 5—two groups that have large immigrant populations—we examined whether immigrant status is linked to a student's out-of-school activity portfolio. While 18% of the student sample was either born outside of the United States or had one parent who was, this was true for only 14% of the Social group and 17% of the All-Around group. On the other hand, 22% of the Study group are first or second generation youth, significantly more than either the Social or All-Around groups. These findings suggest future studies on out-of-school time may benefit from adding immigrant status as a covariate. Additionally, the pairing of high levels of academic achievement and low levels of victimization in the diverse Study group challenges the view that there is a stigma of academic success for students of color (Tyson et al. 2005). Instead, this correlation is consistent with academic success serving as a protective factor (Hall-Lande et al. 2007).

As we predicted, the three activity portfolio groups that tend toward more positive indicators (Social, All-Around, Study) each have higher than average proportions of youth in the highest socioeconomic quartile and lower than average proportions of youth in the lowest socioeconomic quartile or attending public schools. Yet, contrary to our hypotheses, the racial/ethnic composition and school location of these groups varies significantly by activity portfolio—the ability to discern these patterns is but one benefit of basing our analyses on a diverse student sample. While Bourdieu (1986), Lareau (2003) and others have shown that socioeconomic status qualitatively influences how children are reared and what kinds of activities youth are involved in outside of school, our findings suggest that what youth do after school is also related to culture and location. Further studies are needed to determine the role of

one's culture and location in shaping preferences or structuring availability, opportunity and access to out-of-school time activities.

The two groups that tend toward more negative indicators also provide evidence that both affirms and contradicts our hypotheses. For example, Group 3 (Unstructured Recreation) spends the least time in structured supervised out-of-school activities and has most negative school and academic indicators of any group, after controlling for covariates. We cannot know whether these choices are due to lack of interest or lack of opportunity, but the relationship between this portfolio and our indicators provides evidence that structured out-of-school engagement is important, regardless of whether it is school- or community-based (Mahoney et al. 2005). This group is similar to the Employment group with regards to race/ethnicity and socioeconomic status, but the Unstructured Recreation group is nearly 80% male. These data suggest a relationship between the low academic achievement of low income, African American and Latino males (Mead 2006), and the nature of their extracurricular involvement.

The “boy crisis” of academic underachievement is recognized as largely driven by the poor outcomes among low income, African American and Latino young men (Mead 2006). Our findings underscore the importance of addressing the needs of this population holistically and in a manner that acknowledges the importance of out-of-school time activity to reinforce or promote positive well-being and social, academic and behavioral outcomes. In those circumstances where these youth are confronted with limited personal or community resources to participate in enriching out-of-school time activities, schools and other public institutions and spaces become particularly critical to the provision of opportunities for engagement.

In contrast to our predictions, Group 4 (Employed) reports negative school climate, high rates of victimization, and has a significantly lower percentage of students performing in the top achievement quartile than the other groups. But this group reports more hours spent on homework, non-school reading, watching videos, and using computers than their peers, and works significantly more hours than any other portfolio group. Like the youth in Mortimer's (2003) study, the Employed group reports average levels of involvement in school-sponsored extracurricular activities. However, they have the lowest rates of participation in structured non-school activities. It is unclear whether this void is due to scheduling constraints, cost, availability or other factors. While the connection between out of school time activities and indicators is less clear for this group, Group 4 provides evidence that activity portfolios help us understand the interaction between various activities.

Community organizations and programs that seek to involve youth in their out-of-school time may want to consider ways to make their programs more accessible to youth in the Employed group. These youth may be interested in getting involved in structured non-school activities but are ineligible due to their inability to make the commitments of time and duration that many non-school structured activities require (e.g., community league sports, music lessons). Many programs that are designed for youth who can commit regularly to several hours of weekly involvement may be unintentionally creating barriers for other interested youth to participate. Hybrid programs, such as those that offer small stipends for students involved in community service, may increase the out-of-school time activity options for these youth. Community programs that sponsor single-day activities, such as community clean-ups, or “drop-in” programs that do not require a minimum time commitment to participate, such as discussion groups, may also enable more youth who want to participate, despite their limited, non-work “free” time, to do so.

As shown above and in Bartko and Eccles (2003), no single activity has a uniform relationship with academic, behavioral and school climate indicators across portfolio groups. For example, the Employed and Study groups report similar amounts of time spent in school-sponsored extracurricular activities, but are significantly different on nearly every indicator. Likewise the Employed and All-Around groups report similar amounts of time spent on homework, but the Employed group has significantly fewer students receiving school honors and students in the highest achievement quartile. There is no single prescription for success or failure.

Out-of-school time activity portfolios may be a useful way to describe and identify peer contexts and the multiple microcosms of school life. Doing so takes us an important step forward from the work of Coleman (1961) and the research that focuses on peer effects on adolescent outcomes (Crosnoe et al. 2004; Giordano et al. 1993; Kreager 2004; McFarland and Pals 2005; Tyson et al. 2005; Van Rossem and Vermande 2004). It may be that—similar to in-school academic tracking—students get tracked into out-of-school engagements with consequences for school performance and experiences. By looking at out-of-school time activity portfolios, we can add the dimension of how time is spent to the existing considerations of who youth know and how much time they spend together.

A number of factors could limit the implications of this study. First, structured activities and paid jobs vary drastically in terms of quality and this study does not control for this variation. Second, we do not know what programs each school or community offers and thus cannot tell to what extent youth even have the option to participate in structured activities. However, the high rate of

participation we found indicates that most youth do have access to at least some activities. Third, our measures fail to capture some activities; perhaps including measures of time spent with family or caring for siblings could further elucidate the portfolios. Fourth, as we did not undertake a longitudinal analysis, we cannot describe the long-term effects of participation. We also cannot specify the direction of the relationship between activity portfolios and, for example, students’ safety and academic success. Activity portfolios may influence academic achievement and perceptions of school climate, or vice versa. Finally, this study’s reliance on adolescent self-report data is also a potential limitation. Future studies could build on our findings by corroborating survey data with activity attendance records and municipal or school delinquency reports.

Overall, our construction of portfolios reveals a nuanced relationship between participation, academic success and school well-being. These findings speak to the varied needs of today’s youth, and make it clear that no single after-school engagement can expect to garner all of a teenager’s attention. Programs may more fully support youth by communicating and cooperating with employers, families, and other community organizations that vie for adolescents’ time and attention. For practitioners, these results highlight the importance of considering youth’s alternate out-of-school options in designing both program structure and curriculum. Collaboration across sectors may prove to better support youth development.

Although we have demonstrated that ELS:2002 is a valuable data source for the study of out-of-school time, our study has not begun to exhaust its potential. An important next step for this research is to apply the five activity portfolios described here to the full ELS:2002 nationally representative sample to impute the activity classifications of students who were dropped from our analyses due to missing data on one or more activity measures. Subsequent studies on the full nationally representative dataset are desirable to further demonstrate the robustness of the activity portfolios and the relationships described here. Future research should also make use of the data collected by ELS:2002 from the diverse stakeholders in the lives of youth, including parents and teachers.

## Conclusion

In an effort to build on the emerging literature on youth’s many out-of-school time engagements, we approached this study with two goals: to base our analyses on a national sample of youth and to introduce a range of activities within participation portfolios. This study represents only the beginning of possible research based in a holistic portrayal of adolescents’ out-of-school engagements. Our



analysis of participation patterns in portfolios, rather than isolated activities, suggests a promising new course of research in the out-of-school time field. This agenda consists of three interrelated branches. First, we must begin to study the options available to youth. A comparative analysis of the supply and demand for out-of-school time opportunities would clarify what choices are available to which youth. Second, now that we have a national picture of who is participating in which activities, we must ask why youth are choosing to participate (or not). For both structured and unstructured activities, understanding youth's motivation to participate will help pave the way for practitioners to successfully reach out to a wider audience of youth. Finally, this study illuminates a complex relationship between participation in extracurricular activities and paid employment. In order to create programming specifically suited to the wants and needs of high school aged youth, we must further examine the extent that paid work limits or expands youth's experiences.

Many parents and professionals agree that schooling acts as a necessary developmental context for youth, but is not sufficient to ensure a wide range of positive outcomes (Rothstein 2006). Although extracurricular activities occur outside formal instructional hours, they offer meaningful opportunities for students to learn critical life skills and engage with peers. This study emphasizes the invaluable context for social, emotional and academic development which programs during non-school hours provide. By promoting a comprehensive view of youth's out-of-school time engagements, we hope to inform and inspire continued innovations in after-school programming and policy nationwide.

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