

# **Can After-School Programs Help Level the Playing Field for Disadvantaged Youth?**

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## The Academic Benefits of After-School Programs

Thus far we have described the current after-school landscape and discussed potential sources of sociodemographic inequities in access to after-school programs. We have not, however, answered the central question that we posed at the beginning of this paper: Can after-school programs boost academic performance among disadvantaged youth? We recognize that after-school programs serve many other purposes, including providing adult supervision and exposing youth to socially and culturally enriching experiences. Yet, beginning in the 1990s and continuing today, program success has increasingly been measured in terms of academic outcomes, with little regard for improvements in other areas of development (Halpern, 2006). Policymakers are increasingly looking to after-school programs to provide academic support for low performing students, and funders increasingly require evidence of academic gains to justify continued funding (California Department of Education, 2007a; Kane, 2004). Thus, in this section, we examine the evidence linking participation in after-school programs to academic benefits. First, however, we discuss briefly three issues that have important implications for understanding the evidence: (a) the definition of academic benefits; (b) mechanisms that may explain the academic benefits of after-school participation; and (c) methodological limitations in the extant research.

Researchers define and measure academic benefits in myriad ways. One recent review of the literature grouped the academic outcomes that are often associated with after-school participation into four types, including academic performance (e.g., grades, test scores, and progression in school), academically related attitudes and beliefs (e.g., feelings about school, educational expectations, and academic self-perceptions), learning behaviors that demonstrate a positive approach or commitment to learning (e.g., effort and work habits), and attendance at school (e.g., absenteeism and tardiness; Roth, Malone, & Brooks-Gunn, in press). Still, many researchers and funders

view changes in standardized achievement test scores as the only reliable measure of program effectiveness because test scores easily and objectively quantify academic gains. Additionally, reliance on test scores as the solely acceptable measure of success fits with the current test-based accountability movement in education (Kane, 2004).

There are at least two problems with relying on test scores to measure the academic benefits of after-school programs, however. First, it is unclear how much of a gain is necessary to qualify as evidence of program success. Test scores change little after a full school year of classroom instruction, particularly as students progress in school. Scores on the Stanford reading and math achievement tests increase by only one-third and one-half of a standard deviation between fourth and fifth grade, respectively (Granger & Kane, 2004). Students spend much less time in after-school programs than in school (i.e., only a few hours per week versus roughly 30 hours per week), so we can only reasonably expect program participation to lead to small gains in test scores (Granger & Kane, 2004). Second, other academic outcomes have important implications for later success and may be more amenable to change than are test scores. Grades and high school graduation predict markers of successful transitions to adulthood, such as college graduation and employment (U.S. Department of Education, 2005), and academically relevant attitudes and behavior (e.g., attendance, motivation, engagement, classroom behavior) likely have ultimate, if not immediate, implications for academic performance. These outcomes may thus play an equally important part in facilitating youths' successful integration into the 21st-century workforce (see Larson, Wilson, & Mortimer, 2002, for discussion of preparation for adulthood in the 21st century).

This more nuanced understanding of academic benefits, which views test scores as one part of a broader constellation of important academic

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outcomes, is evident in writings about the mechanisms that may explain how after-school programs promote learning. Generally speaking, after-school programs expose youth to supportive adults who encourage youth to attend and try hard in school, serve as positive role models, and provide direct academic support in the form of homework help or curriculum-based academic components. These supports are hypothesized to lead either directly or indirectly to improved academic performance, as measured by grades, test scores, or progression in school. When indirect paths are proposed, it is typically argued that program participation leads to improvements in other academic domains, such as attitudes and beliefs, learning behaviors, and attendance at school, which in turn produce improvements in academic performance (e.g., Huang, Gibbons, Kim, Lee, & Baker, 2000; Kane, 2004; Walker & Arbreton, 2004).

Recognizing that performance measures, academic attitudes and beliefs, learning behaviors, and school attendance are all important contributors to youths' educational success, our review casts a wide net and examines evaluation research on the associations between after-school program participation and all of these outcomes. Before reviewing this research, however, it is important to point out that not all evaluation research is created equal. Some evaluation studies use research designs that are more methodologically sound than others. The most frequently used and least rigorous approach, called the single group pre- and post-test research design, involves collecting data on program participants' academic outcomes at the beginning and end of a program. These data may show academic improvements over time, but they provide little information about the role of the after-school program in fostering improvements. Only when the gains of participants are compared with those of a similar group of students who did not attend the program can we know whether participants would have made similar gains without attending the program. Single group designs may serve other purposes, but they cannot answer questions about the academic benefits of participating in an after-school program.

Quasi-experimental studies provide a better test of program effectiveness. When using this method, investigators collect outcome data at the beginning and end of a program for two groups of students – those who attend the after-school program and those who do not. Participants are not randomly assigned to the after-school or nonparticipant groups, however. Consequently, this method does not eliminate the influence of self-selection bias. Self-selection biases occur when certain unaccounted for characteristics (e.g., attachment to school, parenting) encourage both participation in an after-school program and academic gains, thereby inflating the apparent effects of participation on academic outcomes. In other words, quasi-experimental research may reveal differences in outcomes between after-school participants versus nonparticipants that are attributable to many nonprogrammatic factors. A high degree of similarity between the two student groups at the beginning of the program is therefore critical to the usefulness of this design. Gains among program participants can only be attributed to the program when the two groups of students are similar in characteristics, attitudes, and behaviors that could also influence academic performance. In practice, it is difficult to quantify or eliminate the influence of self-selection bias in quasi-experimental research since important predictors of academic outcomes are likely to remain unmeasured.

Experimental designs, on the other hand, eliminate the influence of self-selection bias. In experimental studies, researchers randomly assign students to either attend the program (the treatment group) or not to attend (the control group), thus equalizing the two groups on both known and unknown predictors of academic outcomes. Experimental designs are the only designs that can yield definitive conclusions about the impacts of participation on academic outcomes,<sup>7</sup> but they remain rare in after-school research for two primary reasons. First, the ability to assign an adequate number of youth to program and control groups randomly depends on an excess demand for the program. As noted previously, however, research suggests that after-school programs are

often underutilized, making it difficult to generate large enough samples for random assignment studies. Second, it is impossible to constrain the activities that control youth participate in during nonschool hours, and most evaluations of after-school programs do not collect information on the other activities in which study participants are engaged. This raises questions about what program “effects” really reflect. It is often unclear whether program effects reflect the fact that the program was “better” than staying home unsupervised or “better” than attending other after-school options in the community. This limitation is true of all research on after-school programs, however. Thus, experimental designs remain the gold standard in evaluation research.

### **Overview of the Link between After-School Participation and Academic Outcomes**

Although single group pre- and post-test designs still dominate the after-school literature, a number of researchers have recently reviewed the growing body of methodologically sound (i.e., experimental and quasi-experimental) studies on the academic outcomes associated with after-school program participation. Narrative reviews of these studies, which compare and contrast findings across published studies, generally conclude that participation in after-school programs improves a variety of academic outcomes for youths, including academic performance, academically related attitudes and beliefs, learning behaviors that display a positive approach or commitment to learning, and attendance at school (e.g., Afterschool Alliance, 2003, 2006; Bodilly & Beckett, 2005; Little & Harris, 2003; Miller, 2003; Redd et al., 2002; Roth et al., in press; Scott-Little, Hamann, & Jurs, 2002).<sup>8</sup> It is important to note that across the studies included in these reviews, findings indicate that after-school programs more often lead to improvements in attitudes and behaviors than in academic performance as measured by standardized tests.

Narrative reviews are often criticized for failing to provide a balanced picture of the benefits of after-

school programs, however. Researchers sometimes choose to highlight studies that show statistically significant gains<sup>9</sup> in academic performance among program participants without considering the number of studies that do not find significant gains (i.e., null results). A more balanced inspection of the evaluation results typically shows that after-school programs have more null effects on outcomes than positive effects. For example, of the five experimental studies measuring grades included in Bodilly and Beckett’s (2005) review, only one found a statistically significant improvement for program participants. The other four studies found no significant difference in the grades of after-school participants and control group youth.

Meta-analytic techniques combat the weaknesses of narrative reviews by systematically pooling numerical results from all extant studies and calculating the average size of program effects on academic outcomes. The statistical significance of the average effect indicates whether, across programs, the scores of program participants differ from those of nonparticipants, and the size of the effect reflects the practical significance of the program effect. Meta-analytic reviews of methodologically sound studies typically do find statistically significant improvements in academic performance across studies of after-school programs. For instance, recent meta-analyses found that the average program effect on reading achievement (i.e., tests scores or grades) for at-risk students is .13 (Lauer, Akiba, Wilkerson, Apthorp, Snow, & Martin-Glenn, 2006), and that the average program effect on students’ combined math and reading test scores is .16 (Durlak & Weissberg, 2007). Durlak and Weissberg (2007) also reported effect sizes for other academic outcomes. They found a similarly sized effect on school bonding (.14). Program effects on school attendance, however, were not significant.

There are various ways to interpret these effect sizes. One convention designates that an effect of .20 is small, .50 is moderate, and .80 is large (Cohen, 1988). By these standards, after-school programs have a small impact on academic outcomes. Researchers have recently called

for moving away from this decontextualized approach to interpretation, however, in favor of an approach that considers whether the effect is meaningful given the type of intervention, target population, and outcome measure (see Hill, Bloom, Black, & Lipsey, 2008). Viewed through this lens, participation in after-school programs, on average, leads to meaningful improvements in academic outcomes. The sizes of the effects of after-school programs are on par with those of other remedial educational interventions, which range from .11 for year-long Title I programs to .24 for summer school (Lauer et al., 2006). After-school program effects are also meaningful when compared with normative expectations for changes on standardized tests from one year of school to the next. One study suggests that the sizes of the average effects of one year of elementary schooling on standardized achievement test scores (as indexed by the difference between fourth and fifth grade scores) are .36 for reading and .52 for math. Kane (2004) argues that, given the differences in the amount of time that youth spend in school versus after-school programs, a consequential effect from after-school programs could therefore range in size from .05 to .07. Another proposed benchmark, of particular interest for this paper, suggests interpreting effect sizes in relation to a policy-relevant performance gap, such as the achievement gap (Hill et al., 2008). When viewed against the gaps in reading and math scores between black versus white, Hispanic versus white, and students who are eligible versus ineligible for free/reduced-priced lunch on the fourth grade National Assessment of Educational Progress (NAEP; -.83, -.77, -.74 for reading and -.99, -.85, and -.85 for math, respectively), the academic gains attributed to participation in after-school programs can be considered small, but not inconsequential.

Taken together, the research seems to suggest that while the effects of successful after-school programs on academic outcomes may be small, they are meaningful nonetheless. It is, however, important to consider that not all after-school programs offer equal academic benefits for all youth. Although positive effects emerge, on average, across the studies included in meta-analytic reviews, the majority of studies included in each review did not find that program participants showed higher

academic performance than nonparticipants (Granger, 2008). As discussed in the following paragraphs, the academic benefits of participation in after-school programs may vary (a) across programs with different programmatic features, (b) as a function of amount of participation, and (c) as a function of youths' risks for academic failure.

#### *Differences in Academic Gains as a Function of Programmatic Features*

Careful consideration of the above reviews and the empirical studies on which they are based reveals that some programs are more successful at improving participants' academic functioning than others (Durlak & Weissberg, 2007; Lauer et al., 2006; Little & Harris, 2003; Redd et al., 2002). One might suspect that some of this unevenness is due to differences in the emphases of different programs. As noted earlier, differences in program emphasis at least partly result from a tension that exists between the goals that different program providers and funders hold for after-school programs: Some believe that programs should focus primarily on academic success while others believe that programs should focus more broadly on positive youth development. Based on extant theory and limited empirical research, researchers have identified eight program features that promote positive development: (1) physical and psychological safety; (2) appropriate structure; (3) supportive relationships; (4) opportunities to belong; (5) positive social norms; (6) youth input and leadership; (7) opportunities for skill building; and (8) integration of family, school, and community efforts (Eccles & Gootman, 2002).

Rather than suggesting that one type of program emphasis (academics versus positive youth development) is more beneficial than the other, extant research suggests that programs that include a strong academic component (beyond the ubiquitous homework), in combination with other development-enhancing components, yield positive results (Durlak & Weissberg, 2007; Lauer et al., 2006; Redd et al., 2002). In a recent meta-analysis, Durlak and Weissberg (2007) found

that programs using an evidence-based approach<sup>10</sup> to promote the development of personal and/or social skills had positive effects on both academic performance (effect size for grades = .24, test scores = .31) and school bonding (effect size = .26). Although not all of these programs included an academic component, the investigators found that the inclusion of an academic component was the strongest predictor of achievement test gains and accounted for 34% of the variance in test scores (Durlak & Weissberg, 2007). A recent meta-analysis of program evaluations for academically at-risk students also found that programs with a combined academic and social focus had greater positive effects on math scores (.19) than did programs that primarily focused on academics (.07). Reading scores did not vary depending on program content, however (Lauer et al., 2006).

Program process features, which refer to program atmosphere rather than content, may also have important implications for academic outcomes. Positive program processes are manifested in supportive and empowering environments created through positive interpersonal relationships within the program. Research documents associations between these process features and both positive youth development outcomes (Roth & Brooks-Gunn, 2003) and academic success (Pierce, Hamm, & Vandell, 1999; Vandell et al., 2005). One narrative review of the after-school literature concludes that “it is not so much the type of program – the focus, strategies or location – as the environment that is created for youth that makes all the difference” (Miller, 2003, p. 69). Similarly, strong evidence exists to support the importance of a program’s emotional climate for youths’ academic success (Beckett, Hawken, & Jackowitz, 2001). Tools for measuring after-school program quality, though in the early stage of development (Granger, 2008), also recognize the importance of program processes. For example, in one review of existing quality assessment tools, all 10 of the included observational instruments looked for a variety of process features, including positive relationships between staff and youth, supportive program environments, engagement in activities, positive social norms, opportunities for skill-building,

clear routines, and appropriate structure (Yohalem & Wilson-Ahlstrom, 2009). Thus, while more research on the implications of program processes is clearly needed, the hypothesized importance of program processes is buttressed by the priorities of those working in the arena of quality assessment and improvement.

#### *Differences in Academic Gains as a Function of Amount of Participation*

Even when youth attend programs with similar programmatic features, their level of participation varies. Participation includes more than just attendance (Simpkins, Little, & Weiss, 2004; Weiss, Little, & Bouffard, 2005). Participation is a complicated, multidimensional construct that involves at least five different aspects: intensity (i.e., frequency of attendance during one program year), duration (i.e., years of attendance), total exposure (i.e., frequency of attendance over multiple years), breadth (i.e., involvement in different types of program activities), and engagement (i.e., effort and interest in program activities). Evidence from different after-school programs indicates substantial variability in all five aspects of participation across youth. On average, however, estimates from large national surveys, local initiatives, and individual program evaluations indicate that youth who do attend after-school programs spend only a small fraction of their after-school time in these programs (i.e., between 7 and 10 hours per week). Additionally, about half of participating students do not attend programs for more than one year and approximately two-thirds do not attend a wide selection of activities within programs (Roth et al., in press). Common sense would imply that participants need to attend programs for an adequate number of hours over a significant period of time, and must be actively involved while there, before one could reasonably expect the program to improve academic outcomes.

Surprisingly, the measures necessary to determine the extent of youths’ participation in after-school programs are often not collected (Fiester & Policy Studies Associates, 2004; Roth et al., in press). Most

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program evaluations simply compare the academic outcomes of participants and nonparticipants and do not consider differences in outcomes as a function of participation levels. One reason for this is that self-selection issues loom large in research on the effects of variations in participation levels: Youth who attend after-school programs more often or for longer, or who are more involved once at the program, differ from both nonparticipants and from those who participate at lower levels in observable and unobservable ways (see Bodilly & Beckett, 2005). Researchers cannot manipulate youths' levels of participation through random assignment. Instead, they must rely on quasi-experimental research designs with statistical controls for pre-existing differences to reduce the impact of self-selection bias.

Perhaps as a consequence, meta-analytic techniques have not, to our knowledge, been applied to extant research on the influence of amount of participation. Moreover, the few methodologically sound studies that explore the implications of variations in participation yield inconsistent findings. Although there is some evidence to support the claim that students need to attend regularly over a period of months or years to make significant academic gains (Arbreton, 2004; Miller, 2003; Redd et al., 2002), null results are just as common as statistically significant results for most measures of academic success. In the following paragraphs, we provide a brief narrative review of the quasi-experimental studies that have examined relations between variations in participation levels and two academic outcome domains – academic performance (e.g., test scores, grades, graduation rates) and attendance at school (e.g., absenteeism and tardiness). Studies of participation breadth and engagement are scarce, and thus will not be discussed.

Studies that measure the effects of participation levels on academic performance indicate differences by age group and aspect of participation level. Among elementary-school-aged participants, the majority of studies find no association between elementary school students' grades or test scores and the frequency of

attendance during a single year (known as intensity) or the number of years of attendance (known as duration; Anderson-Butcher, Newsome, & Ferrari, 2003; Arbreton, Goldsmith, & Sheldon, 2005; Dynarski et al., 2003; James-Burdumy, Dynarski, Moore, Deke, Mansfield, & Pistorino, 2005; Leake & Gardner, 2006; Morrison, Storino, Robertson, Weissglass, & Dondero, 2000; NICHD Early Child Care Research Network, 2004; Pettit, Laird, Bates, & Dodge, 1997; Riggs & Greenberg, 2004; Vandell et al., 2005). When more frequent attendance occurs over multiple years (known as total exposure), however, findings from a limited number of studies suggest that more participation in after-school programs is associated with higher grades or test scores for elementary school students (Huang et al., 2000; Reisner, White, Russell, & Birmingham, 2004; Texas Education Agency, 2007).

A number of studies find that *adolescents* who attend after-school programs more often or for more years earn significantly higher grades compared with nonparticipants or participants with lower program attendance (Arbreton & McClanahan, 2002; Dynarski, James-Burdumy, Moore, Rosenberg, Deke, & Mansfield, 2004; Espino, Fabiano, & Pearson, 2004; Goerge, Cusick, Wasserman, & Gladden, 2007; Lodestar Management/Research, 2005; Rodriguez, Hirschl, Mead, & Groggin, 1999). Limited evidence also suggests that participation over a longer period of time has beneficial effects on adolescents' progression in school (Pearson, Vile, & Reisner, 2008) and graduation rates (Goerge et al., 2007; Huang, Kim, Marshall, & Pérez, 2005). Adolescents' test scores, however, typically do not vary based on the amount of participation (Dynarski et al., 2004; Dynarski et al., 2003; Espino et al., 2004; Leake & Gardner, 2006; Lodestar Management/Research, 2005; Texas Education Agency, 2007; University of Illinois Urbana-Champaign Center for Prevention Research and Development, 2004; Walker & Arbreton, 2004).

Findings on the association between participation level and attendance at school follow a pattern similar to that noted above for academic performance. That is, the majority of studies fail to show a significant relation



between the intensity or duration of elementary school students' participation in an after-school program and their regular school day attendance (Anderson-Butcher et al., 2003; Dynarski et al., 2004; James-Burdumy et al., 2005; Leake & Gardner, 2006; Lodestar Management/Research, 2005; Reisner et al., 2004). Among adolescents, greater intensity, but not duration, is typically associated with better attendance at school (Birmingham & White, 2005; Dynarski et al., 2004; Dynarski et al., 2003; Espino et al., 2004; Fabiano, Pearson, & Williams, 2005; Leake & Gardner, 2006; Walker & Arbretton, 2004). A few studies, however, show that total exposure (i.e., longer duration combined with greater intensity) is associated with fewer absences from school for both younger and older youth (Fabiano et al., 2005; Huang et al., 2000; University of Illinois Urbana-Champaign Center for Prevention Research and Development, 2004).

Clearly, the empirical evidence in favor of a positive link between participation levels and youths' academic outcomes is weak. This may be partly explained by the fact that many of the programs evaluated in the aforementioned studies did not include a targeted academic component. As mentioned earlier, the inclusion of a strong academic component may have important implications for youths' academic outcomes. It is also important to remember that where we do find positive associations between participation levels and academic outcomes, studies are often plagued by methodological problems. These problems (e.g., self-selection), while common to most evaluations, complicate efforts to understand the associations between different aspects of participation and youth outcomes. The weakness of the findings, combined with the methodological limitations in the extant literature, therefore necessitates caution in proclaiming the benefits of higher participation levels for academic improvements.

#### *Differences in Academic Gains as a Function of Youths' Risks for Academic Failure*

In a world of limited resources, many argue that funding for after-school programs should be directed to youth who are most in need of these programs,

and in particular, to youth who are at risk for school failure (a group that includes disproportionately large numbers of economically disadvantaged and ethnic minority youth). After-school programs may provide these youth with supports and enrichment that their parents are unable to provide and that they are unlikely to find elsewhere in the community. It is therefore reasonable to expect that academically at-risk youth will benefit more than less-at-risk youth from the opportunities for skill development and positive relationships afforded by participation in after-school programs. One researcher proclaimed that "a truism in the field might be that those who need the most, benefit the most" (Miller, 2003, p. 57). Reviews of the few studies that have explored differences in the academic benefits of after-school programs as a function of youth characteristics generally support this claim; research documents greater gains for youth entering programs at greater risk, whether risk is defined on the basis of prior achievement levels or family characteristics (e.g., income, race/ethnicity; Black, Doolittle, Zhu, Unterman, & Grossman, 2008; Bodilly & Beckett, 2005; Dynarski et al., 2004; Policy Studies Associates, 2002).

A small number of studies have also examined the possibility that students at greater academic risk benefit more from greater amounts of participation than do students at lower risk. First, one study of high school students found that frequent participation in an after-school program had a greater positive impact on school-day attendance among those in the second lowest attendance quartile (i.e., those who attended school 88-94% of the time the previous year) than among those in higher attendance quartiles (similar risk-based differences in the benefits of intensity were not observed for other academic outcomes, however; Birmingham & White, 2005). Second, a recent quasi-experimental evaluation found that (a) two years of participation in an after-school program led to greater academic gains among academically at-risk elementary school children (those with lower test scores) than among children who were not at risk (James-Burdumy et al., 2005), and (b) academic benefits among at-

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risk children were only observed after two years of program participation (Dynarski et al., 2004). Finally, one additional study found that, although students who scored at or above grade level on math proficiency tests showed larger than expected gains in test scores after both one and two years of participation in an after-school program, students who scored below grade level only exhibited gains after two years of participation (Reisner et al., 2004).

Taken together, these findings suggest that youth at risk for academic failure, when compared with more academically able students, may (a) benefit more from greater involvement in after-school programs, and (b) require greater involvement in order to reap academic benefits. These conclusions are very tentative, however; empirical research on the extent to which risk moderates program effects on academic outcomes is both scant and riddled with the methodological problems discussed above. The results of the extant studies must therefore be replicated in future research using experimental methods.

### **Conclusions on the Benefits of Participation in After-School Programs**

Despite all the qualifications that we have made, the literature that is currently available indicates that participation in after-school programs – particularly those that offer both enriching youth development activities and a strong academic component – *can* lead to small gains in academic outcomes. Though inconclusive, research also provides tentative evidence that youth who spend more time in after-school programs – particularly during adolescence – may derive greater academic benefits than youth who spend less time in programs. Perhaps most importantly, our review provides some preliminary evidence that academically at-risk youth may benefit more from participation in after-school programs than their higher achieving peers. We recognize that our ability to draw causal conclusions about the academic benefits of after-school programs is limited by the methodological shortcomings in the extant literature, but as a field, it seems prudent to move forward based

on our “best guesses” and take steps to ensure that youth, particularly economically disadvantaged youth, have access to the potentially beneficial activities offered through after-school programs.

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## ABOUT THE AUTHORS

**Margo Gardner, Ph.D.**, is a research scientist at the National Center for Children and Families at Teachers College, Columbia University. Dr. Gardner earned her doctoral degree in developmental psychology at Temple University and her B.A. in psychology at Duquesne University. Using data from the National Education Longitudinal Study of 1988 and the Project on Human Development in Chicago Neighborhoods, she has published several recent papers on the adolescent and young adult outcomes associated with access to youth organizations and participation in extracurricular activities.

**Jodie L. Roth, Ph.D.**, is a senior research scientist for the National Center for Children and Families at Teachers College, Columbia University. Dr. Roth graduated from the University of Pennsylvania with a B.A. in psychology, and earned both her M.A. in Developmental Psychology and her Ph.D. from the Combined Program in Education and Psychology at the University of Michigan. Her research centers on understanding how programs and institutions can advance positive youth development. She recently completed directing the Time Matters in Organized Activities project, funded by the William T. Grant Foundation. The goal of the project was to assess how youth development is influenced by the amount of time youth spend participating in organized activities.

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**Questions for Understanding** (answer directly on this document or on a separate word document and email to your site director or the Volunteer Coordinator at [garrettn@bgcutah.org](mailto:garrettn@bgcutah.org)):

1. After reading this article, what are your thoughts on the effectiveness of after-school programs for at-risk youth? Do you agree or disagree with the findings of the authors?
2. How does what you learned from this article (as well as your answer to number 1) apply to your volunteer experience at the Boys & Girls Clubs?