Overview

This review aims to provide context to the current evaluation efforts of the Boys and Girls Clubs of America’s (BGCA) after-school homework help and tutoring program, Power Hour. To conduct the search for the literature reviewed here, we used both web-based (e.g., Google Scholar) and academic databases to locate evaluations of programs that are similar to Power Hour. Specifically, we focused on after-school programs that include academic enrichment activities and primarily serve diverse and low-income elementary school-aged youth. Once collected, we reviewed and analyzed the literature on after-school program impacts to clarify overall outcomes, effective program components, and potential explanations for inconsistencies in the literature. In conclusion, we discuss the implications of prior evaluation efforts and findings to BCGA’s Power Hour program, both in terms of process and of anticipated outcomes.

After-School Programs: Contributing Factors and Philosophy

After-school programs have become highly popular over the past few decades for a variety of reasons. On a logistical level, parents, practitioners, and policymakers concerned about children’s unsupervised after-school hours have embraced after-school programs as a way to provide structure and guidance to at-risk youth while their parents or guardians are at work. Studies highlighting the rising prevalence of full-time employment among caregivers (Granger, 2008; Hollister, 2003), a corresponding lack of supervision among their children (National Institute on Out-of-School Time, 2008), and patterns in youth criminal activity (Carnegie Council Report on Adolescent Development, 1992) have emphasized the need for after-school programs that support at-risk youth by providing a positive alternative to the streets.

Additionally, many youth development advocates have recognized the opportunity, through the provision of after-school programming, not only to mitigate negative environmental influences but also to offer academic enrichment and social development (Lauer, Akiba, Wilkerson, Aptrorp, Snow, & Martin-Glenn, 2004; Schinke, Cole, & Poulin, 2000). By providing more “time on task” and supplementary education during the after-school hours, practitioners and policymakers hope to build on at-risk students’ strengths to improve their academic achievement and close the gap between more and less privileged students (Hollister, 2003; Lauer et al., 2004).

With the two vital goals of youth development and risk prevention, after-school programs have garnered wide public and political support. This support has translated into the exponential expansion of federal funding for after-school programming over the past ten years, from just $40 million in Fiscal Year 1998 to $1.1 billion in 2008 (Afterschool Alliance, 2008; Hollister, 2003). Not surprisingly, these rising funding levels have come with increasing calls for rigorous evaluation studies to determine the impact
of after-school programs on youth outcomes. Both funding organizations and the public want after-school programs to demonstrate that they have attained the diverse array of benefits that these programs strive to promote.

**After-School Program Evaluations**

In presenting the findings from after-school program evaluations, we begin with other research summaries and meta-analytic reviews to provide a broad overall picture of the literature. A meta-analysis is a special type of literature review in which the author extracts the effect sizes of each intervention and combines them to determine an overall effect size for a class of interventions. After providing a broad overview by examining the results of meta-analyses and reviews, we present summaries of specific after-school program evaluations, briefly noting program characteristics and methodology before presenting the findings and any qualifiers. Studies are organized according to the similarities between the programs and populations discussed and those of the Power Hour program, with the most relevant reviews and evaluations listed first.

**Reviews and Meta-Analyses**

Reviews of the literature on after-school programs usually report small positive effects of program participation on various academic and social indicators. A meta-analytic study by Lauer and colleagues (2004), for example, analyzed 53 out-of-school-time programs (both after-school and summer programs) for low-achieving or at-risk K-12 students, focusing on those whose evaluations employed control or comparison groups. The authors found small positive impacts on achievement, especially the reading achievement of younger students (grades K-2) and the math achievement of older students (grades 9-12). In addition, the ways in which students were grouped for learning activities had an effect in reading: one-on-one tutoring boasted the largest impact on achievement. Lauer and colleagues (2004) also determined that the duration and intensity of programs increased their effectiveness—to a point. Programs that lasted over 45 hours for the school year were associated with the largest gains, but those with over 210 student contact hours showed no significant gains. Other common program features associated with achievement were attendance, staff quality, and a well-defined curriculum in reading; remediation, tutoring or mentoring, and active learning were mostly closely related to achievement in mathematics.

Cosden and associates’ (2001) review of the literature on after-school homework help programs found promising outcomes among elementary and early middle school students. Reviewing evaluations of after-school programs that focused specifically on homework assistance, they found a variety of positive impacts. Many programs documented test score gains among participating students. Those that did not found related benefits such as improved school engagement, academic confidence, study skills, and protection against the “academic backsliding” that often occurs as at-risk youth progress through school (Cosden et al., 2001, p. 215).

In their own randomized controlled evaluation of the Gevirtz Homework Project, which provided 50 minutes of on-site homework assistance 3 to 4 days a week to fourth
through sixth grade students, Cosden and associates (2001) did not find greater achievement or homework completion among students assigned to attend the homework help program relative to the control group. They did, however, find that youth who attended the program more frequently had better standardized test scores, self-efficacy, and higher educational aspirations than those who attended infrequently. Additionally, comparisons of program and control group students found that the Gevirtz program prevented declines in teacher-rated academic effort, study skills, and social skills among students with limited English proficiency.

Granger's (2008) review focused on findings from recent meta-analyses, interpreting the effect sizes of many programs in light of the views of scholars and practitioners in the field. The author concluded that after-school programs can have positive effects on students' achievement in mathematics and reading. The most common finding among reviewed studies, however, was that after-school programs do not significantly impact student achievement or behavior. That is, a few programs that produced substantial effects were combined with many that demonstrated no effects to create the impression that after-school programs generally produce very small effects. Meta-analyses of related interventions suggested that summer school (Cooper et al., 2000) and mentoring (DuBois, 2002) programs also have small positive effects on achievement.

The Afterschool Alliance (2006) analyzed 16 programs and several other comprehensive reviews to conclude that after-school programs positively impact school attendance, educational engagement, test scores, and educational attainment. Furthermore, several of the studies reviewed indicated that more frequent and longer-term participation was associated with greater benefits, and that the lowest-income and most at-risk students made the largest gains. The outcomes observed, however, varied from program to program, and overall impacts were small to negligible in terms of the size of the effects on academic achievement.

In a rigorous review and meta-analysis of after-school youth development programming, Hollister (2003) analyzed only ten programs due to strict methodological standards. He concluded that mentoring and tutoring seem to be effective components of after-school programs, both promoting in-school outcomes (e.g., attendance, test scores, grades, retention/drop-out prevention) and preventing negative out-of-school outcomes (e.g., drug use, teen pregnancy, criminal activity). Additionally, parental involvement and life skills training were sometimes effective in preventing negative out-of-school outcomes. Overall, however, Hollister concluded that most after-school programs had very small impacts on youth outcomes at best. On the other hand, he argued that positive youth development programming should not have to demonstrate major effects of academic achievement to justify itself; both youth and society gain many other benefits from after-school programs, including a safe and supportive environment and the development of non-academic interests and skills.

Durlak and Weissberg's (2007) meta-analysis found small positive effects of after-school programming specifically geared toward personal and social skill development. Students who participated in these programs demonstrated more positive attitudes
towards school and learning, better behavioral adjustment, and higher academic achievement. Underscoring the heterogeneity of the 73 programs analyzed, a subset that met the authors’ criteria for being evidence-based showed stronger impacts on school engagement, grades, test scores, self-esteem, pro-social behavior, and non-use of drugs. The authors described evidence-based programs as consisting of sequenced skill-building activities, active learning techniques and activities, clear focus on the development of particular skills, and explicit goals to promote these skills (S.A.F.E.).

Evaluations of Specific Programs

Evaluations of specific programs and initiatives have reported similarly mixed findings. James-Burdumy and colleagues’ (2005) evaluation of the 21st Century Learning Centers, the most relevant as well as the most methodologically rigorous program evaluation, identified few impacts on youth. The 21st Century Learning Centers program is a federally-funded after-school initiative to fund local programs to provide homework help, supplementary instruction or other academic activities, and social or recreational activities to low-income, at-risk youth in grades K-6. For the evaluation of the elementary school centers, the researchers utilized an experimental, randomized control group design; because there were not enough middle school students interested in the program to randomly assign applicants to either the treatment or control groups, the middle school centers evaluation employed a quasi-experimental design that matched participating youth with demographically similar non-participating students at their schools.

The evaluation, which utilized baseline and two years of follow-up data, did not find greater levels of school engagement, academic achievement, social skills, adult supervision during the after-school hours, or positive behavior among students assigned to participate in 21st Century Learning Centers programs. Program students did, however, report feeling safer after school. In the middle school sample, students who attended the 21st Century Learning Center program had better school attendance and higher educational aspirations. Students who attended the program frequently did not demonstrate better school attendance, classroom effort, homework completion, course grades, test scores, discipline, feelings of safety, or adult supervision than either the control or comparison groups or than treatment group members who attended infrequently.

As the 21st Century Learning Centers evaluation is one of the strongest methodologically yet found the fewest positive impacts, it is important to look more closely at why this program appears, by most measures, little better than no program at all. One possibility is that the randomized controlled trial design conflicted with the voluntary, drop-in structure of the programs. That is, although students assigned to the control group were not permitted to participate in 21st Century Learning Center programs, they were still eligible to attend any other after-school program or activity in their community. Parent surveys indicated that 40 percent of control group youth did attend an after-school program. Although the surveys did not collect more detailed information about the types of after-school programs control group youth attended, it is
possible that these programs provided academic supports and enrichment similar to those provided by 21st Century Learning Centers, thus providing similar treatment to almost half of the students intended to serve as controls. Additionally, analyses of attendance records and other program data indicated that 8 percent of treatment group students never attended the 21st Century Learning Center to which they were assigned, while 16 percent of students assigned to the control group did attend their local 21st Century Learning Center.

This “artifact of design” explanation, however, does not account for the anomalous finding that those program group students who chose to attend more frequently did not have better school attendance, engagement, or achievement—even though we would expect their attendance to be positively correlated with individual-level predictors of academic success, such as motivation and ability. Rather, this finding supports the authors’ implementation study finding that 21st Century Learning Centers programs were too low in quality to produce academic benefits. In particular, the evaluators noted that the homework help portion of 21st Century Learning Centers programs was more like an unstructured study hall, with very little adult-student interaction, than like tutoring sessions. The outcomes study is consistent with this impression: control group students reported receiving similar levels of homework assistance (87.1%) compared to program group students (89%). In fact, control group students were more likely to indicate that a parent or other adult “explains homework in a way that is easy to understand” than were treatment group students (83.3% and 80.5%, respectively).

On the other hand, the evaluation of the Boys & Girls Clubs of America’s Project Learn did demonstrate positive impacts on academic outcomes (Schinke, Cole, & Poulin, 2000). A comprehensive strategy rather than a specific program, Project Learn aims to increase educational achievement of disadvantaged students aged 10-15 by offering homework help, tutoring, educational enrichment activities that promote active learning, and incentives for student success. The evaluation compared three groups of youth: (a) those who participated in Project Learn programs, (b) those who attended a Club but not Project Learn, and (c) those who attended a non-BGCA program. Data were collected at baseline and 6, 18, and 30 months after the program began. Schinke and colleagues (2000) found that students’ involvement in Project Learn was related to greater academic engagement and enjoyment. In addition, students who completed Project Learn programs had higher GPAs, test scores, and school attendance at follow-up than either non-Project Learn BGCA members or youth attending non-BGCA programs. Even more persuasively, Project Learn students’ grades increased substantially over the course of the program, while the other students’ did not; and their school absences declined, while the average number of absences of students in the other two groups increased. Thus, although non-experimental in design, this evaluation provides longitudinal evidence that participation in Project Learn is causally related to improvements in educational achievement and school attendance.

The Foundations After-School Enrichment Program’s evaluation reported even more promising results on student achievement (Klein & Bolus, 2002). The educational enhancement program for students in grades 1-5 provides homework help and activities
designed to promote social and emotional development. According to the quasi-experimental evaluation, which compared participating students’ math and reading scores on a fall pretest and spring posttest with both non-participating students’ scores and those of a national norm group, Foundations participation had large positive effects on student test scores. Although participants’ test score gains were significantly greater than those of non-participating students, Foundations students’ math gains were only slightly greater than expected based on the norm group, and their reading gains no greater than those of norm sample students. Thus, the true impact of the program was modest.

Huang and associates (2000) also found positive impacts in their evaluation of the LA BEST after-school program. LA BEST is an after-school program that aims to provide K-5 students at 69 program locations with a safe environment, educational support and enrichment, recreational activities, and social development. The longitudinal research design, which followed second- to fifth-grade students from the 1993-1994 school year through 1997-1998, compared students who attended an LA BEST program frequently with those who had low rates of attendance, and also compared students who attended the program with those who did not participate at all. The researchers documented significant correlations between frequency of attendance at LA BEST and school attendance, school engagement, and increased academic achievement and scores on district-wide standardized tests. Although this finding suggests that increased program attendance translates into improved student performance, it also may reflect high-participation students’ motivation, persistence, or other characteristics. Additionally, a supplementary finding that LA BEST’s impact on school attendance declined over time suggests that policymakers should not expect programs to permanently inoculate students against the risks in their communities.

Arbreton and colleagues (2008) reported educational benefits of participating in the Communities Organizing Resources to Advance Learning (CORAL) after-school program for diverse 3rd through 5th grade students. After preliminary evaluation efforts revealed that the academic enrichment and homework help at CORAL was of relatively low quality and did not contribute to student achievement, the program shifted to focus on intensive literacy instruction, skill development, and active learning strategies. A longitudinal evaluation design, using data collected between Fall 2004 and Summer 2006, determined that this new approach was working: students who were exposed to high-quality, balanced literacy strategies had greater reading test gains than those who received inconsistent or low-quality literacy instruction. This process-oriented evaluation also illuminated the relationship between engagement and achievement. Although children’s levels of participation in the CORAL program were not related to attitudes toward reading and school, their engagement, defined as their self-reported sense of belonging to the program, was.

Numerous smaller evaluations have identified positive impacts of participation in after-school programming. Two small programs, the Howard Street Tutoring Program and the Hilltop Emergent Literacy Project (HELP), serve only 20 and 12 students per year, respectively. The Howard Street Tutoring Program is a university-community
partnership that provides after-school literacy tutoring to struggling readers in grades 2 and 3 for two hours per student per week. Despite this low level of exposure, the literacy lessons produced, within the 8 months of the school year (September to May), almost twice as much growth in reading ability among youth assigned to participate in the program as among a control group of struggling readers matched by pre-test scores (Morris, Shaw, & Perney, 1990). The authors also note, however, that almost all of the students remained below grade level in their reading proficiency after a year in the program—emphasizing that “an out-of-school, volunteer tutoring effort produces measurable gains, not miracles” (Morris et al., 1990, p. 147).

The Hilltop Emergent Literacy Project (HELP) is also a university-community partnership that draws on the literacy expertise of professors and on-the-ground efforts of student interns to support the program (Bergin, Hudson, Chryst, & Resetar, 1992). Targeted toward low-income, primarily African American youth in kindergarten through third grade, HELP includes unstructured time for recreational activities, student-led story time, phonetics sing-alongs, and small-group literacy skill-building activities. Compared to a matched comparison group at the same school, the youth who participated in HELP earned better standardized test scores and grades in pre-reading, reading, and language, as well as higher teacher-rated study skills and effort, after 16 months of the program (Bergin et al., 1992). Almost all of the effect sizes of these differences were large, and the first-grade HELP participants scored above national norms on their standardized tests in reading and language arts.

Many other smaller evaluations, however, did not include comparison groups of non-participating students. For example, Johnson’s (2005) evaluation of the Support Our Students (SOS) academic assistance and youth development programs reported that in 2004-2005, most subgroups of participating middle school students met or exceeded North Carolina’s state end-of-grade assessment goals, a third of participating students’ behavior improved, and that students felt their school engagement and study skills had improved. In the absence of a comparison group of students, however, it is hard to gauge the meaning of these accomplishments; this evaluation leaves the question, “better than what?” unanswered.

Similarly, Shinew and associates (2000) did not include a comparison group in their two-year pretest and posttest evaluation of the Academic Cultural Enrichment Mentorship Program for African American youth ages 6 to 14, which was based on pretest and posttest survey data. Although the academic skill-building, mentoring, and cultural pride program seemed to benefit students’ academic competence, behavior, and self-worth (but not their grades), the reader does not know what kind of academic or behavioral changes might have occurred without the program. Although such evaluations are methodologically weak, they do contribute to the overall picture of the strength and variety of impacts of after-school programs.
Conclusions and Implications for Power Hour

The research raises as many questions as it answers. Many after-school programs make at least small contributions to student engagement and achievement—and some seem to produce more substantial impacts, though methodological differences between studies make it difficult to assess just how substantial these impacts are (Afterschool Alliance, 2006; Hollister, 2003; Granger, 2008). Overall, effects reported even for successful programs are classified as small according to Cohen’s (1992) effect size statistic. Some programs and program components, however, have yielded medium to large effects on student outcomes, which is impressive considering that they are only one of many influences on youths’ educational and social development.

Educational impact also varies by the quality of a particular program. In general, those with little structure, few qualified staff members, and a lack of active and engaging learning opportunities were unlikely to find significant effects, while more structured, focused, and active learning environments benefited students much more (Arbreton et al., 2008; Durlak & Weissberg, 2007; James-Burdumy et al., 2005). However, “high quality” as it applies to after-school programs has not been well defined. Different programs have defined and measured quality in different ways, with the result that some “high quality” programs have proven effective in promoting good student outcomes (e.g., Durlak & Weissberg, 2007) while others have not demonstrated any effects at all.

Additionally, the duration, intensity, and focus of after-school programs affect student outcomes in several ways. Although most evaluations and reviews have reported a simple correlation between contact hours and student benefits (e.g., Afterschool Alliance, 2006), Lauer and associates’ (2004) more in-depth analysis suggests a more complex curvilinear relationship in which additional time on task helps only up to a certain point—after that, presumably, program staff is merely beating word problems into a dead horse.

Intensity in terms of the structure and quality of an after-school program also seems to be related to better student outcomes (Arbreton et al. 2008). This is especially true for programs that offer intensive tutoring or mentoring, which some reviewers have cited as the most educationally effective element of an after-school program (Hollister, 2003; Lauer et al., 2004).

Focus refers both to the overarching ideology of the program (positive development, educational enhancement, or both) and to the particular activities offered. Overall, programs that emphasize positive youth development are more likely to attain behavioral, social, and risk prevention outcomes. More academically-focused programs impact school attendance, engagement, and achievement. However, there are also exceptions; for example, the academic programs that met Durlak and Weissberg’s (2007) S.A.F.E. criteria improved self-esteem, pro-social behavior, and non-use of drugs. It is possible that positive outcomes in one area promote better outcomes in the other, although precise relationships between different types of outcomes have not been clearly described in the research base.
Even within the category of more educationally-focused programs, student outcomes vary by subject area. Programs for younger students are more likely to boost reading achievement, while those serving older youth usually have a stronger influence on math scores and grades (Granger, 2008; Lauer et al., 2004). It is difficult to tease out how much of this difference is due to students’ age and how much is due to the differences in actual programming. Early elementary students are still learning to read, so many programs for students this age focus on bolstering reading achievement. High school students, on the other hand, presumably already know how to read and are more likely to need help mastering algebra and geometry. These findings, then, seem to highlight the importance of designing programs that are responsive to students’ academic as well as developmental needs. Lauer and colleagues (2004) reviewed the differential program aspects that are most often associated with successful outcomes in math—remediation, mentoring or tutoring, and active learning techniques—and in reading/English—attendance, staff quality, and focused curricula.

To the extent the programs described above resemble BGCA’s Power Hour, BGCA administrators can expect comparable findings in terms of student outcomes. Specifically, if BGCA’s Power Hour is being implemented faithfully and providing active, focused homework assistance, the program should demonstrate small to medium-sized effects on student engagement and achievement. Indeed, the findings of both Schinke and associates’ (2000) evaluation of Project Learn and Zaff and Redd’s (2001) review of the literature confirm the program outcome model on which Power Hour is based, suggesting that this program is on the right track to promoting student outcomes. Furthermore, we can expect Power Hour sites that are able to offer consistent, high-quality tutoring to their participants to demonstrate larger impacts on student engagement and achievement than sites operating under tighter resource constraints. The extent to which impacts vary from club to club will likely provide interesting qualitative data about program implementation and point toward best practices and promising strategies for improving less successful Power Hour sites. This information is a vital and timely addition to our understanding of after-school programs, and through them, our efforts to enrich the educations and lives of at-risk youth.
References


