

## Afterschool Programs

Afterschool programs (ASPs)—also called out-of-school time (OST) programs—include a variety of program types, structured in numerous ways, designed to affect a variety of outcomes. As the name implies, such programs generally occur outside of mandated school hours, although some programs classified as afterschool or out-of-school may be part of a larger program where elements are delivered during school hours. These may be delivered before school, in the afternoons once school has been dismissed, on weekends, or during the summer.

Most current ASPs generally have one of three purposes, although these are not mutually exclusive: improving students' academic performance, preventing problem behaviors from developing, and encouraging positive youth development (Lauer et al. 2006).

ASPs have risen in popularity over the past decades as more women have moved into the workforce, and concerns about unsupervised children have grown. Research findings estimate that 35 percent of 12-year-olds are left by themselves regularly while their parents are at work. In fact, the gap between parent work schedules and child school schedules can total 20 to 25 hours per week (U.S. Department of Justice 2000). This unsupervised time is a risk factor for serious and violent behavior among youths. The evidence suggests that children “who are unsupervised during the hours after school are more likely to use alcohol, drugs, tobacco,... receive poor grades, and drop out of school than those children who have the opportunity to benefit from constructive activities supervised by responsible adults” (U.S. Department of Justice 2000). Gottfredson, Gottfredson, and Weisman (2001) also find that youths who are unsupervised during afterschool hours are found to be more delinquent at all times, not only after school. Research has documented an association between parental supervision and lower levels of problem behaviors (Apsler 2009).

Also justifying the need for more programs to address this supervision gap is the apparent peak of violent crime in the 4 hours following the end of the school day (roughly 2–6 p.m.). Data from the FBI National Incident-Based Reporting System (NIBRS) shows that crimes among youth peak between 3 p.m. and 4 p.m. (Snyder and Sickmund 1999). Other recent research, though, has used victimization surveys, such as the National Crime Victimization Survey, and reached the conclusion that the dramatic peak in crime is, in fact, more modest than official data sometimes indicates and that “juveniles are disproportionately victimized while at school relative to the percentage of time they spend at school” (Soulé, Gottfredson, and Bauer 2008, 625). A recent study of Maryland students based on victimization surveys shows that juvenile victimization and delinquency peak during school hours, though more serious violent offenses are higher after school (Soulé, Gottfredson, and Bauer 2008). One reason for the discrepancy in findings based on NIBRS and survey data is that crime that occurs in school or on the way to and from school often does not appear in official police records (Gottfredson, Gottfredson, and Weisman 2001).

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Where ASPs were once primarily viewed as a safe haven for youth when parents were unavailable for supervision, the growing emphasis on the need for improved academic performance and basic skills to succeed in the 21st century has transformed the vision of what ASPs can, and should, do for youth (Harvard Family Research Project 2008). ASPs' potential led the federal government to become an active supporter of this growing movement. In 1994, Congress authorized the 21st Century Community Learning Centers program and increased funding for the centers from \$40 million in 1998 to \$1 billion in 2002. According to the original funding guidelines, these centers were to concentrate on providing academic and enrichment activities during afterschool hours; centers that included elements to help students reach state and federal standards were given extra consideration in the application process (James-Burdumy et al. 2005). The structure of funding changed in 2002 with the passage of No Child Left Behind, at which point funding began being distributed to states in proportion to allocation of Title I funds (James-Burdumy et al. 2005). As of fiscal year (FY) 2010, appropriations brought the total funding for the centers to \$1.17 billion, an increase of \$35 million over FY 2009.

The funding of these programs has in crucial ways been disconnected from the evidence of program effectiveness (Fagan 2007). For instance, funding grew rapidly from 1994 to 1998 with little evidence about the effectiveness of ASPs. When an evaluation of the 21st Century Community Learning Centers was published in 2005 that demonstrated no academic improvements and increased negative behaviors by participants, Congress nonetheless continued to fund the centers in 2006 with approximately \$1 billion (Fagan 2007).

Although many continue to advocate for more ASPs, arguing that there is not enough supply to meet demand, some recent research has started to look at the match between supply and demand. Bodilly and Beckett examined this question in a 2005 report on OST programs. They found that most studies documenting unmet demand were highly flawed (e.g., they were based on unverifiable assumptions), and many studies, in fact, documented significant openings in extant programs. Low attendance is quite common in ASPs, and two studies that directly addressed this issue found that the ASP in question did not reduce the number of unsupervised youths (Apsler 2009; Weisman and Gottfredson 2001; James-Burdumy et al. 2005). Based on their examination, Bodilly and Beckett recommended that improving the quality of existing programs should take precedence over increasing their supply.

## Characteristics of ASPs

One of the emerging aspects of evaluations of ASPs is the effort to identify what characteristics of programs make them most effective. Characteristics or components of effective programs include

- An emphasis on social skills or character development
- More structure, with a predictable schedule
- Smaller size, with lower adult/youth ratios and with opportunities for one-on-one training/tutoring
- Strong links to school-day curriculum
- Qualified and well-trained staff (e.g., hiring staff that hold bachelor degrees)
- Higher percentage of male staff
- Low attrition (Durlak and Weissberg 2007; Fashola 1998; Gottfredson, Cross, and Soulé 2007)

In their review of programs that promote personal and social skills, Durlak and Weissberg remark on the differences in results found between programs that used evidence-based, skills-training approaches and those that did not: the former uniformly produced multiple benefits for youth, but the latter "were not successful in any outcome area" (Durlak and Weissberg 2007, 5). The following elements were used to identify programs that used evidence-based approaches:

- A sequenced set of activities to achieve skill objectives
- The use of active forms of learning
- Emphasis concentration on developing personal or social skills
- The targeting of specific personal or social skills

Of the 73 quasi-experimental and experimental evaluations they studied, only the 39 programs that were identified as using evidence-based approaches were associated with positive outcomes.

## Theoretical Foundation

Overall, little has been done to theorize why or how ASPs might succeed in the three main purposes proposed for such programs (that is, improving students' academic performance, preventing problem behaviors from developing, and encouraging positive youth development). This lack of theoretical context is especially important in light of two issues. First, participation in ASPs is voluntary, and research shows that students who participate in ASPs are not like those who do not participate (Apsler 2009; Bandy and Moore 2009; Bodilly and Beckett 2005; Gottfredson, Gottfredson, and Weisman 2001). This phenomenon of self-selection poses a challenge to the implied universal utility and benefit of ASPs suggested by advocates, since many of those youths who could, in theory, most benefit from such programs may never participate (or may drop out during the program). This initial selection bias can be exacerbated by the selection bias introduced by differential participation rates (e.g., motivated students may engage more fully and for longer) and attrition (e.g., unmotivated or higher-risk youth may drop out). Second, a theoretical grounding could take into account research that has documented the negative effects on problem behaviors of aggregating youths, especially high-risk adolescents; such peer interactions can lead to increased problem behaviors (Cook, Gottfredson, and Na 2009; Dishion, McCord, and Poulin 1999; Dishion et al. 1991). Finally, the absence of a theoretical grounding for ASPs has resulted in multiple categorizations on the part of researchers, sometimes by program structure, sometimes by goals, and sometimes by content areas (Apsler 2009).

Two very different theoretical frameworks for considering ASP/OST programming are offered by Gottfredson, Cross, and Soule (2007) and Feldman and Matjasko (2005). Gottfredson and colleagues argue the relevance of routine activities theory to ASP research, which postulates that "1) crime will increase when motivated offenders, suitable crime targets, and the absence of capable guardians converge in space and time; and 2) the likelihood of this occurring is based on the routine activities of an individual" (Gottfredson, Cross, and Soule 2007, 294). ASPs can influence crime by changing the routine activities of a youth, reducing the unsupervised time spent with peers.

In their review of the literature on extracurricular activities and adolescent development, Feldman and Matjasko offer an ecological framework that considers the mechanisms through which "activities exert their influence on development" (2005, 159; Fashola 1998). They consider some of the many mediator and moderator variables that influence the impact of programs within an ecological systems framework, which provides a foundation for examining the link between activity participation and adolescent functioning. They note that extracurricular activities cannot be divorced from other developmental contexts, such as families, schools, and communities. This model allows for consideration of how program participation may compensate for a "suboptimal fit in another context" (160).

## Outcome Evidence

Research over the first decade of the 21st century has been largely divided between studies that emphasize the positive effects of ASPs and reviews that argue the research methods of most ASP

evaluations are so weak that one can only draw the most preliminary of conclusions about programs' effectiveness.

### **Limitations of Current ASP Evaluation Research**

In a variety of reviews of ASP evaluations, various methodological limitations of evaluation research have been identified, including selection bias, methods for tracking dosage and program attrition, and the lack of a control group (see e.g., Apsler 2009; Bodilly and Beckett 2005; Gottfredson, Cross, and Soulé 2007; Scott-Little, Hamann, and Jurs 2002).

The main weakness of evaluations to date is their lack of adequate controls for self-selection. Self-selection is the phenomenon where children who choose to participate in such programs differ from those who do not participate (Apsler 2009; Bandy and Moore 2009; Bodilly and Beckett 2005; Gottfredson, Gottfredson, and Weisman 2001). As Gottfredson, Cross, and Soulé note, those students who participate in ASPs “are also those who are already on track for prosocial development” (2007, 290). Self-selection poses a challenge to evaluations because it is possible that the effects documented by an evaluation may be due not to the program, but to characteristics of the youths enrolled. Otherwise rigorous studies are even limited by this bias. For instance, one study that is characterized by the evaluators as a randomized controlled field trial—the gold standard for evaluation—draws its treatment and control subjects from those who indicated they wanted to participate in the program (James-Burdumy et al. 2005). This limitation in the research does not mean that these evaluations tell us nothing, but it does tend to lead to research that may overstate the positive effect of programs (Bodilly and Beckett 2005).

Related flaws in methodology include the lack of definitions of dosage and methods for tracking dosage (that is, how much of a program the youth actually was exposed to) and the lack of information on attrition rates and those who dropped out. Youths who drop out of a program may differ from those who remain enrolled. In a study of 234 students in eight Maryland ASPs, Weisman and Gottfredson (2001) documented a 33 percent dropout rate. In interviews with 82 percent of those who dropped out of the programs, they found that dropouts scored significantly more at risk on 11 of the 12 indicators than those who remain enrolled. Apsler (2009) also examines how the results of various evaluations are limited by the lack of an appropriate, or any, control group. Such limitations have affected the ability of researchers to reach general conclusions about the effectiveness and efficacy of ASPs. For instance, Scott-Little, Hamann, and Jurs (2002) attempted a meta-analysis of ASPs based on evaluations, but although they identified 23 studies that met the review criteria they found there were too few evaluations with sufficient detail (e.g., means and standard deviations) to calculate effect sizes beyond a very small sample. They carried out a meta-evaluation instead.

Another issue of concern has been the venue for publication. Evaluations that are published in peer-reviewed journals generally report larger effect sizes than those published as dissertations or reports by the evaluator or program (Lauer et al. 2006; Scott-Little, Hamann, and Jurs 2002). By depending on published articles, the positive effects of ASPs may be overstated.

### **Research Results**

Several of the largest, most rigorous evaluations have found a mix of small positive effects, no effects, or even small negative effects. The evaluation of the 21st Century Community Learning Centers program had both a rigorous design and a large sample size (James-Burdumy et al. 2005). Positive effects included elementary school students feeling safer and parent reports of improved school attendance. But overall, especially for programs designed to support and improve academic achievement, the outcomes were disappointing: treatment-group students did not boast higher levels

of academic achievement as measured by reading test scores or grades in school, compared with control-group students. Moreover, there was evidence of higher levels of negative behavior (e.g., suspensions, students being disciplined by teachers) among treatment-group students, compared with control-group students. Lauer and colleagues (2006) suggest that these findings may result in part from the aggregation of data across the various programs included in the evaluation, which would not distinguish effective from noneffective programs.

Similarly disappointing results were found in the evaluation of Enhanced Academic Instruction in ASPs, a 2-year demonstration and random assignment evaluation of structured approaches to teaching math and reading in ASPs. Black and colleagues (2009) found that there was a positive and statistically significant improvement of approximately 10 percent in (0.09 standard deviation) student achievement in math after receipt of approximately 48 hours of academic instruction over 1 year. The evaluators described this improvement as about the equivalent of 1 month's extra learning over the 9-month school year. But no further improvement occurred with a 2-year dose. Moreover, they found that there was no impact of the intensive reading program on scores after 1 year of participation, and that 2 years of participation resulted in a negative and statistically significant impact on reading scores. Lauer's evaluation of the Cooke Middle School Afterschool Recreation program, using an experimental design, produced similarly mixed results: students and parents responded positively to the program, but there was no measurable impact on school attendance, grades, test scores, in-school behavior, or time spent on homework (2002; as cited in Apsler 2009).

Despite these methodological problems and the weak results of some large, national evaluations of ASPs, many reviewers have pointed out that while firm conclusions may not be merited, the preponderance of evidence suggests that ASPs do have positive effects. On the cautious end of the spectrum, for instance, Bodilly and Beckett (2005) conclude in their review of OST program evaluations that while broad conclusions about the universe of ASPs cannot be made, the literature currently allows for the effects of specific programs to be reviewed, and some programs have demonstrated positive effects on outcomes ranging from academic achievement to social behaviors to attitudes. On the other end of the spectrum are reviews, such as that by Durlak and Weissberg (2007), which conclude that ASPs can have strong positive effects when they incorporate evidence-based approaches.

Lauer and colleagues performed a meta-analysis that revealed "small but statistically significant positive effects of OST on both reading and mathematics student achievement" (2006, 275). The researchers analyzed 35 program evaluations that employed either experimental or quasi-experimental designs – though, according to Apsler (2009) – these designs do not adequately account for selection bias. They looked at possible moderators of effectiveness, including timeframe, grade level, program focus, program duration, and student grouping. Of these moderators, they found grade level to be an important moderator, with the highest effect sizes for mathematics programs for students in middle and high school, and the highest effect sizes for reading programs for students in lower elementary and high school grades.

McComb and Scott-Little speak of the "pattern of results" (2003, 1) that indicate the positive effects of school-readiness initiatives on youth outcomes. For instance, evaluations of programs such as LA's BEST or Woodrock Youth Development Project found that programs had positive academic (LA's BEST participants scored higher on standardized tests in language arts, math, and reading, and attended school more regularly) and psychosocial outcomes (participants in Woodrock Youth Development Project had higher prosocial scores than nonparticipants). They note that evaluations to date have not indicated "which students benefit the most and under what circumstances" (2003, 1). Feldman and Matjasko acknowledge it is "impossible to generally state that extracurricular activities are beneficial"

(2005, 163), given the negative effects noted in some program evaluations, but they likewise conclude that “[s]chool-based, structured, extracurricular activity participation... is associated with positive adolescent developmental outcomes” (2005, 193), including reduced dropout and problem behaviors and increased academic performance, school attainment, and psychological adjustment.

The findings on ASPs are suggestive of their potential, but confirmation about the overall effectiveness of such programs awaits more rigorous research. In the meantime, there is a group of programs, especially those that incorporate evidence-based approaches, which are available for replication.

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