

EXECUTIVE SUMMARY

Beyond any doubt, academic achievement is important for the successful development of young people in contemporary American society. Research has shown that students who do well in school are better able to make the transition into adulthood and to achieve occupational and economic success.

Children who master basic reading, writing, and mathematics skills are less likely to fail in school and more likely to develop the higher-order thinking skills they need to graduate from high school and post-secondary school. Competency in these basic academic skills is also necessary for finding and keeping jobs that provide a steady income, benefits, and opportunities for advancement.

Unfortunately, U.S. schools vary greatly in quality. As a result, students' skills and knowledge, employment readiness, and readiness for higher education also vary widely. While educational outcomes have improved overall during the past several decades, approximately one-fifth to one-third of fourth-, eighth-, and twelfth-grade students still perform below basic levels on the National Assessment of Educational Progress (NAEP) reading, writing, and mathematics assessments. With substantial disparities in school quality and educational inputs, as well as in educational outcomes, the United States is far from reaching its educational goal of leaving no child behind.

Programs with a strong academic component may reduce these educational disparities, especially for students from disadvantaged backgrounds or those in chronically underperforming schools and school districts. This synthesis of research on academic achievement programs describes how such programs may help children and adolescents develop a broad array of strengths and abilities in the areas of education and cognitive attainment, health and safety, social and emotional well-being, and, as they move into adulthood, self-sufficiency.

Specifically, the synthesis addresses the following questions: What do academic-oriented programs look like? What impacts do they have? What resources do they provide to promote healthy development? What positive outcomes are achievable through academic-oriented programs? What methods of implementation characterize effective programs?

All of the programs in this synthesis have been evaluated, but not all of them with the same scientific rigor. Our main goal is to include program evaluations that use a rigorous experimental methodology to test for their impacts on youth outcomes. Few such impact studies exist, however, so this synthesis also includes careful quasi-experimental studies that provide insight into the practices of academic achievement programs.

Experimental evaluations of the following programs are included:

- Boys and Girls Clubs of America Educational Enhancement Program
- Children at Risk
- Howard Street Tutoring Program
- Quantum Opportunities Program
- Summer Training and Education Program
- Upward Bound

Quasi-experimental studies of the following programs are included:

- Foundations
- LA's BEST
- Sponsor-A-Scholar
- Texas Parks and Recreation Department After-School Programs
- Fifth Dimension
- University Student Athletes Tutoring Program¹

The quasi-experimental analyses are included only in Part III, which explores best bets for program elements. For instance, a few studies of the Boys and Girls Clubs and Children at Risk programs used both experimental and quasi-experimental methods; in such cases, outcomes for students in the program are examined in relation to outcomes for control *and* comparison groups.

Part I. Characteristics of Academic Achievement Programs

All of the programs reviewed here are designed to improve academic achievement. Most of them target children and adolescents who are considered to be at risk of failing a grade or dropping out of school because of, such as low levels of parental education, low socioeconomic status, minority race or ethnic background, living in a high poverty neighborhood, and other factors.

Academic achievement is often a *component* rather than the sole focus of a program. Thus the emphasis on academic achievement varies, as do the types of academic activities. Such activities include homework completion and assistance, supplemental academic or remediation classes, academic games and activities, educational computer games and activities, educational board games, and one-on-one or group tutoring. Other components, which may support both academic and other program goals, include

¹ This program, which uses university student athletes with below-basic reading skills (compared to other college students) as volunteer tutors for disadvantaged youth with reading problems in an effort to improve reading skills in both groups, is referred to here as the University Student Athletes Tutoring program. The formal name of the program is not reported in the evaluation.

recreational and arts and crafts activities, social and human services, cultural enrichment activities and field trips, recreational computer games, nutrition and health promotion lessons or activities, community service, employment, life and social skills training, mentoring, counseling, career preparation, parent workshops, and career planning.

Most of the programs are after-school and are community-based rather than school-based. They vary in how often and for how long they provide services, as well as in what children and adolescents they encourage to participate. Some programs provide services during the summer or for one semester, for example, while others offer services—and encourage young people to participate in them—for up to four years. Although many of the programs operate after school every weekday, some are open only a couple of days per week. Some programs are structured informally, offering drop-in tutoring or academic remediation services at parents' or students' request. Other programs strongly encourage or expect all students to attend regularly and to participate in all program activities.

Part II. Outcomes Positively Affected by Academic Achievement Programs²

Experimental studies found that impacts of academic achievement programs on child and youth development were generally mixed and varied considerably across programs.

Educational Achievement and Cognitive Attainment

Evidence shows that academic achievement programs *can* improve educational outcomes for young people who participate in them, although there is great variability across programs and outcomes.

The one study that measured grade repetition found that children in academic-oriented programs repeated a grade significantly less often than children in control groups. One of two studies that measured test scores found positive impacts, while the other showed mixed effectiveness at improving scores. One of five studies that measured grades found that participation in academic programs raised students' grades significantly higher than they would have been in absence of the program. Two of four studies that measured program impacts on high school graduation or college attendance showed some positive results. One of these programs improved high school graduation and college attendance for participants overall, while another improved them for certain subgroups, including low-income whites and Latinos.

Overall, academic-oriented programs were more effective at improving academic-related outcomes such as reading, writing, and mathematics skills, grade progression, attitudes about school, high school credits earned, receipt of honors or awards, and engagement with school than at improving other developmental outcomes. Experimental evidence is limited, however, because only a few programs measured each outcome.

² Only findings from experimental studies are reported here as "impacts."

Health and Safety

Studies indicate that academic-oriented programs which also aimed to improve health and safety were only sometimes effective at meeting this goal.

One program decreased reported drug use among its participants. Two programs increased knowledge of contraceptives and responsible sexual practices and had limited success in decreasing students' involvement in risky sexual behavior. One of these programs increased contraceptive use for one of two participant groups, but did not decrease teen pregnancy for either group. Participants in the other program did not report having fewer children than students in the control group in an initial follow-up, but had significantly fewer children one year after the end of the program. A third program had no impact on childbearing.

Social and Emotional Well-Being

Academic achievement programs showed some evidence of effectiveness at improving social and emotional well-being, although programs that specifically target this developmental outcome are more effective.

One program found no differences in parents' and teachers' behavior ratings of youths in educational enhancement programs and those in control and comparison groups. Two programs had positive impacts on behavior related to delinquency (that is, selling drugs, involvement with police, associating with delinquent peers), while one had no impact on such behaviors (specifically, gang membership, contact with the juvenile justice system agencies, and behavioral incidents). One program increased youths' involvement in positive social activities, while another improved students' attitudes and behaviors, as measured by higher rates of volunteering and positive attitudes regarding the future, school, and helping the elderly. More research is necessary to understand the impact that participation in academic-oriented programs may have on social and emotional outcomes.

Self-Sufficiency

Academic achievement programs showed mixed effectiveness at improving self-sufficiency in young adulthood.

Only two academic programs reviewed here measured self-sufficiency, and both of them had improving self-sufficiency as a goal. One program improved involvement in productive activities such as employment, school, and community service after the program ended. The other had no impact on employment or wages earned from employment, and no impact on welfare receipt. Again, more research is needed to understand the impact that participation in academic-oriented programs may have on self-sufficiency in early adulthood.

1. Summary of Program Findings

In sum, the academic achievement programs included in this synthesis show some promising findings. Some have improved academic achievement and other educational outcomes. Some have improved social and emotional, health, and self-sufficiency outcomes as well. However, programs that focus primarily on one of these three outcomes and include an academic component appear to be more effective at improving them than are programs focused exclusively on academic achievement. More research is necessary to state definitively whether and how academic-oriented programs affect educational, social and emotional, health and safety, and self-sufficiency outcomes.

Part III. Program and Participant Characteristics Associated with Positive Outcomes

Quasi-experimental evidence from several studies suggests that young people who participate in programs longer and more intensively do better than those who participate for a shorter time or less intensively. Findings of one such study suggest that the development of close tutoring and mentoring relationships improves academic outcomes. Quasi-experimental studies also suggest that programs with a strong academic focus are more consistently effective at improving academic achievement outcomes.

Part IV. Unanswered Questions

People who want to implement academic-oriented programs need research that evaluates and systematically compares programs. Such studies should examine the impacts of various program components on subgroups of students. The following questions have not been—but need to be—adequately answered:

- What program components work?
- Are some activities more effective than others?
- Are academic tutoring, homework assistance, and/or classroom-like lessons more effective than a broader approach?
- Is one academic approach more effective than others?
- Are academic programs effective as a stand-alone intervention?
- For which outcomes are academic-oriented programs most effective?
- Are programs that match their activities or lessons to lessons learned in school more effective than programs that try to seem less like school?
- Do programs that use different teaching methods or approaches help students who may have difficulty learning in the regular school environment?
- Does the effectiveness of academic-oriented programs vary by student group or initial degree of risk?
- How can quality of tutoring or programming be assessed?

- Can interested parties agree upon standards for assessing best practices and characteristics of effective teaching methods and program activities?
- How much training and ongoing support for tutors, volunteers, and program staff is needed to achieve good outcomes?
- What is the optimal frequency and duration of participation?
- What degree and type of interaction between regular school teachers and program activity leaders helps improve student outcomes?
- What do high-quality academic achievement programs cost? How does their cost compare with the costs of other program interventions?

This synthesis suggests that programs with at least one strong academic component can improve educational, health, social and emotional, and self-sufficiency outcomes among participants. However, impacts are not certain, and sometimes no impacts have been found. Clearly, much remains to be learned.