



EDUCATION

THE ARTS
CHILD POLICY
CIVIL JUSTICE
EDUCATION
ENERGY AND ENVIRONMENT
HEALTH AND HEALTH CARE
INTERNATIONAL AFFAIRS
NATIONAL SECURITY
POPULATION AND AGING
PUBLIC SAFETY
SCIENCE AND TECHNOLOGY
SUBSTANCE ABUSE
TERRORISM AND
HOMELAND SECURITY
TRANSPORTATION AND
INFRASTRUCTURE
WORKFORCE AND WORKPLACE

This PDF document was made available from www.rand.org as a public service of the RAND Corporation.

[Jump down to document](#) ▼

The RAND Corporation is a nonprofit research organization providing objective analysis and effective solutions that address the challenges facing the public and private sectors around the world.

Support RAND

[Browse Books & Publications](#)

[Make a charitable contribution](#)

For More Information

Visit RAND at www.rand.org

Explore [RAND Education](#)

View [document details](#)

Limited Electronic Distribution Rights

This document and trademark(s) contained herein are protected by law as indicated in a notice appearing later in this work. This electronic representation of RAND intellectual property is provided for non-commercial use only. Unauthorized posting of RAND PDFs to a non-RAND Web site is prohibited. RAND PDFs are protected under copyright law. Permission is required from RAND to reproduce, or reuse in another form, any of our research documents for commercial use. For information on reprint and linking permissions, please see [RAND Permissions](#).

This product is part of the RAND Corporation occasional paper series. RAND occasional papers may include an informed perspective on a timely policy issue, a discussion of new research methodologies, essays, a paper presented at a conference, a conference summary, or a summary of work in progress. All RAND occasional papers undergo rigorous peer review to ensure that they meet high standards for research quality and objectivity.

OCCASIONAL
P A P E R



Current-Generation Youth Programs

What Works, What Doesn't,
and at What Cost?

Megan K. Beckett

Sponsored by Growth & Justice

This work was sponsored by Growth & Justice. The research was conducted by RAND Education, a division of the RAND Corporation.

The RAND Corporation is a nonprofit research organization providing objective analysis and effective solutions that address the challenges facing the public and private sectors around the world. RAND's publications do not necessarily reflect the opinions of its research clients and sponsors.

RAND® is a registered trademark.

© Copyright 2008 RAND Corporation

All rights reserved. No part of this book may be reproduced in any form by any electronic or mechanical means (including photocopying, recording, or information storage and retrieval) without permission in writing from RAND.

Published 2008 by the RAND Corporation
1776 Main Street, P.O. Box 2138, Santa Monica, CA 90407-2138
1200 South Hayes Street, Arlington, VA 22202-5050
4570 Fifth Avenue, Suite 600, Pittsburgh, PA 15213-2665
RAND URL: <http://www.rand.org>
To order RAND documents or to obtain additional information, contact
Distribution Services: Telephone: (310) 451-7002;
Fax: (310) 451-6915; Email: order@rand.org

Summary

Introduction

Policymakers nationwide must decide how to best invest in education and related opportunities, such as out-of-school-time programs, for their youth populations—how to allocate their investments across alternative opportunities according to the respective costs and benefits of each opportunity. In this paper, we review the costs, benefits, and cost and benefits relative to one another for one alternative type of investment: youth programs that are offered during the time that students are not in school. Such programs are often viewed as a mechanism for addressing working parents' needs for care of their school-age children, for improving the developmental outcomes of youth, and for reducing the gap in academic achievement between advantaged youth and disadvantaged youth.

Most of the programs considered in this paper are targeted to at-risk groups, such as students in low-performing schools or children from low-income families, to some extent. Some are more targeted than others, usually providing more-intensive programming, such as a case manager, and involving fewer youth. The youth programs we consider are before-school and after-school programs, enrichment programs, specialized after-school programs (such as mentoring and tutoring), summer learning programs, and intervention programs to prevent dropouts and other teen problems.

What Do We Know About the Reported Costs of Youth Programs?

In determining alternative investments in social programs, cost is an important factor. All else being equal, policymakers would prefer a program that serves a larger number of people at the same cost as a program that serves either fewer people or a fixed number of people at lower cost. Recognizing that cost will feature in the decision of whether to fund new programs or to expand or close existing programs, more and more creators of youth programs have included cost information in their evaluations and descriptions. We reviewed the costs associated with many of the more prominent youth programs. To compare program costs, we computed the cost per hour of service per youth.

We found that most cost data exclude key cost elements and, thus, underestimate the full cost of replicating a program. Most of what is known about program costs relates to operating costs, which, at the program level, are likely to account for the majority of costs—between 60 and 80 percent of total costs by some estimates. In most cases, even published operating costs of youth programs are incomplete, tending to ignore in-kind resources (e.g., volunteer mentors, community speakers) and to omit components of key operating costs (e.g., use of donated

facilities and janitorial services). Of further concern is the variation in the level of incompleteness in the operating costs across the programs, making it difficult to compare costs from one program with those from another.

Given this situation, our estimated cost per hour of service for the youth programs should be viewed as incomplete and comparisons should be done with care.

Excluding enrichment programs, the lowest-cost programs are the basic before- and after-school programs (and the funding streams that support them): By our best estimates, their cost per hour ranges from \$1.17 to \$2.57, excluding the two programs that provide a fuller set of services—Beacon's Initiative and Extended Services Schools Initiatives (which contained several Beacon's programs). The costs of these two programs were estimated to be \$4.03 and \$7.03 per hour per child, respectively.

The specialized after-school programs, summer learning program, and the youth dropout/intervention programs tend to be much more expensive per hour of service than the lower-cost after-school programs. The lowest cost per hour per child of these programs is for group mentoring programs (\$3.32); the others range from \$5.36 (Children's Aid Society—Carrera Adolescent Pregnancy Prevention Program) to \$8.36 for one-on-one mentoring.

If the aim is to replicate programs throughout a state, then the costs of individual programs might not be a good indicator of total program costs across multiple sites. For example, as the program is scaled, operating costs as a proportion of total costs may decrease. Additional costs might be incurred—for example, to monitor the training and performance of programs. Inclusion of the oft-omitted in-kind resources is particularly important if the goal is to replicate a program in many sites, including some sites at which it will be difficult to rely on volunteers and donated space. In addition, the costs associated with scaling-up, such as additional training of personnel or acquisition of resources, would need to be considered.

What Do We Know About the Positive (and Negative) Effects of These Programs?

Our update of an earlier RAND research synthesis of the effects of group-based youth programs on youth participants supports the same broad conclusions: *The current generation of youth programs can provide modest positive impacts on academic achievement, academic attainment, and social behaviors, such as pregnancy, and most of the benefits of youth programs are concentrated in programs that are more resource-intensive.*

The current synthesis relies on results from evaluations that use the most rigorous design (a controlled experiment) whose integrity (the essential features of the original rigorous design; often, one or more essential features of the design are violated at some point) was maintained throughout the full evaluation, to avoid a bias toward positive results. Research suggests that weaker study designs, such as quasi-experimental and correlation associations, tend to yield more false positives: They are more likely to result in positive results than the more rigorous experimental designs, which remove self-selection and other non-observable factors that can contribute to the positive effect. Our synthesis is restricted to evaluations screened for inclusion on either of two Web sites: The Coalition for Evidence-Based Policy's *What Works and What Doesn't Work in Social Policy? Findings from Well-Designed Randomized Controlled Trials* and the Promising Practices Network on Children, Families, and Communities, which lists studies assigned a "Proven" rating. While many after-school programs have undergone less-rigorous

outcome evaluations, only the evaluation of the 21st Century Community Learning Centers (CCLCs) had a rigorous evaluation design. A key characteristic of 21st CCLC is that, as with other low-cost after-school programs we reviewed, 21st CCLC is more of an after-school funding stream than a specific after-school program model: Each Center is allowed to design its offerings within some broad guidelines, which means that the results of its evaluation may be considered more akin to what an average (rather than a model) after-school program might expect.

Participation in the 21st CCLC program had an overall *negative* effect on the participants themselves. In the second year, participants were more likely to be suspended from school and to have been disciplined in school (e.g., missed recess or sent to the hall), and their teachers were more likely to have called parents about behavioral problems.

Why might children who participate in average after-school programs act out during school? There are several hypotheses: Students may be tired from spending so much time in school, the programs may tolerate behavior that would not be tolerated in school, or the programs are poorly designed and implemented for the effect desired. Further research is necessary to understand what may be happening here, whether this finding is generalizable to other after-school programs, and, if it is, under what circumstances.

Interventions targeting at-risk youth tend to be more research-based (since they are developed by researchers in the field) and have a longer history of careful program evaluation; for either or both these reasons, more-convincing evidence of positive behavioral impacts can be found among targeted (specialized) programs. The Big Brothers Big Sisters of America (BBBSA) program yielded promising results. This program involved matching the intervention group with a volunteer mentor (usually with a college degree) who agreed to meet with the youth (ages 10–16) at least once a week (in most sites) for at least three hours. After 18 months in the program, participants were less likely to have started using illegal drugs or alcohol and less likely to report having hit someone or having skipped school.

Three dropout and teen intervention programs have been rigorously evaluated. The Children's Aid Society–Carrera Adolescent Pregnancy Prevention Program reduced teen pregnancy and births among female participants after four years and increased high school graduation and college enrollment (seven years following program start and three years after program conclusion). The Quantum Opportunities Program (QOP) is described as a development program for economically disadvantaged youth. Youth, who are called “Associates,” receive year-round services, including comprehensive case management, for high school years. Associates engage in 250 hours of education, development, and community-service activities each year and receive financial incentives for doing so. Compared with the control group, Associates were more likely to graduate from high school, more likely to be in post-secondary school, and less likely to be high school dropouts (Hahn, 1999).

CASASTART (Striving Together to Achieve Rewarding Tomorrows) is a substance abuse and delinquency prevention program serving high-risk young adolescents and their families. It also involves schools, law enforcement agencies, and social service and health agencies. One year after program completion, CASASTART participants were significantly less likely to have used drugs in the past month, less likely to have reported having ever sold drugs or engaged in drug-sales activity in the past month, and less likely to have committed a violent crime in the year following program completion (Harrell, Cavanagh, and Sridharan, 1998, 1999).

The evaluations for each of these three dropout and teen intervention programs suggest potentially powerful impacts if the programs can be replicated in other settings.

What Do We Know About the Costs Relative to the Benefits of These Programs?

Policymakers need to decide how to allocate scarce resources among alternatives. Done well, cost-benefit analysis, a methodology that calculates and compares long-term benefits of a program to society and its participants, to total program costs, provides useful information for choosing among programs. We review the results of cost-benefit analyses completed on the four youth programs for which rigorous evaluations have revealed positive effects and conclude there is evidence that youth programs may produce benefits that outweigh costs. But limitations in the information available to analysts who wish to conduct cost-benefit analysis restrict their ability to quantify by how much and how consistently effective programs are worth their costs. Primarily, evaluations vary widely in the range of the short-term and long-term outcomes they measure. For example, reductions in crime and grade repetition and increases in high school graduation each translate into substantial monetized benefits, yet no evaluation measured all three outcomes.

We recommend that future rigorous evaluations of youth programs seek to measure a larger (and consistent) set of outcomes to facilitate cost-benefit analysis.

How Should Policymakers Proceed in Deciding Whether and How to Invest in Youth Programs Relative to One Another and to Other Alternatives?

At this time, there is enough evidence to suggest that some carefully crafted and implemented youth programs can improve important youth academic and behavioral outcomes. They can reduce drug and alcohol use (BBBSA, CASASTART), violence (BBBSA), crime (CASASTART), and teen pregnancy and births (The Children's Aid Society–Carrera Adolescent Pregnancy Prevention Program), and they can improve high school graduation rates and enrollment in post-secondary schools (QOP, The Children's Aid Society–Carrera Adolescent Pregnancy Prevention Program).

At this time, the evidence from all these program evaluations, which are based on at-risk groups, is strongest for programs that are costlier and provide more-intensive resources to youth. We lack evidence that such programs will benefit youth who are not at-risk or who are less at-risk. Because these programs were designed to provide services for at-risk youth and because other youth are more likely to obtain the needed services elsewhere (such as from families and schools), we would expect weaker, if any, effects for the average youth.

We also lack evidence that less-expensive, less-resource-intensive programs, such as after-school programs, benefit youth. Although evidence from nonrigorous evaluations is largely positive, the one rigorous evaluation of 21st CCLCs suggests that this initiative can produce negative short-term outcomes among program participants, especially boys and children with behavioral problems. More research is needed to assess lower-cost programs and to assess whether there are ways to reduce short-term adverse effects, such as those seen in the 21st CCLCs.

These results do not generalize to the larger population of after-school programs, including those that serve higher-income neighborhoods or those that provide more-intensive services (which may include some 21st CCLCs).

Our conclusions about alternative youth programs should be considered preliminary and should be revised as we learn more about the cost and impacts of youth programs. Thus far, only one experimental design evaluation of one after-school program and one specialized after-school program has occurred. Given the increasing recognition of the need of additional rigorous evaluation designs in education, such youth programs are likely to use rigorous evaluation designs in the coming years.

Other considerations that policymakers can use in deciding how to allocate across youth programs are as follows:

- Investments can be made to support or improve the quality and content of existing programs.
- To reduce the chance of a program's doing harm, investments could be made to understand the circumstances in which after-school programs may contribute to adverse behavioral outcomes. It may be useful to establish model programs as laboratories in which practitioners and program developers can observe student behavior and pilot different approaches to avoiding problem behavior and as sites for evaluation of enrichment and other activities before those activities are implemented across multiple programs.
- For school-based programs, one can also imagine establishing a continuous quality improvement system that involves monitoring school-based behavioral problems of participants and nonparticipants to immediately identify unintended program consequences, design an intervention to address the problems, and track programs' success.
- Finally, policymakers should keep in mind that moving forward requires advancing the youth-programming field and learning what does and does not work. The field will benefit primarily from rigorous and well-done evaluations of large-scale (e.g., statewide) initiatives.