

**Costs and Benefits of  
After-School Programs**

March 8, 2004  
Ewing Marion Kauffman Foundation  
Kansas City, Missouri

KAUFFMAN  
Foundation

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## INTRODUCTION

More than thirty leaders, elected officials, researchers, funders, and practitioners from the field of After-School Programs gathered on March 8, 2004 at the Ewing Marion Kauffman Foundation in Kansas City, Missouri to explore what has been learned about the costs and benefits of after-school programs, what further research is needed, and how such information might affect policy. The meeting was sponsored by The After-School Corporation and the Kauffman Foundation.

The Kauffman Foundation has made significant investments in after-school programs and issues in greater Kansas City and nationally. The After-School Corporation, based in New York City, has developed a network of after-school programs in the New York City area and seeks to make after-school programming universally available.

The meeting moderator, Robert Kronley, president of Kronley & Associates of Atlanta, noted, "Everybody here is united by something other than diversity, and that is producing better outcomes for kids. What we want to do today is explore the nature and quality of after-school experiences and identify areas that require more thinking over the next several years."

## WHAT DO WE KNOW ABOUT COST-BENEFIT ANALYSIS?

Lynn Karoly, senior economist from the RAND Corporation, opened the meeting with an overview of the science and art of measuring costs and benefits for programs serving children. According to Karoly, growing interest in assessing programs on the basis of net cost savings is an outgrowth of two trends:

- Funder emphasis on results-based accountability, and
- Interest in demonstrating not only program benefits but also economic returns, including savings to government and benefits to society.

Given the power of research, it is essential to understand the different types of cost and outcome analysis, the information required to perform these analyses, and the strengths and weaknesses of each approach.

Following is a brief description of the various types of analysis that can be performed.

- The simplest level of analysis is **cost analysis**. Cost analysis asks what a program costs and may compare the amount of resources required to invest in different types of programs. It typically does not consider outcomes.
- The next level of analysis is **cost-effectiveness**, which measures a single outcome relative to dollars invested. For example, for a given dollar invested in an after-school program, what additional number of students graduate high school, earn higher test scores, or pursue post-secondary education? In this type of analysis, there is no need to translate outcomes into dollar benefits.
- Dollar benefits do matter, however, in **cost-savings** analysis, where the question asked is: How do program costs compare to dollars saved by government? Here the focus is not only on a particular outcome but the dollar value of that outcome. We are concerned not only with how many additional students graduate high school, for example, but also with how that might translate into savings through their ability to earn higher salaries, pay more taxes, and use fewer government services in the future.

- The most complex type of analysis is **cost-benefit** analysis. In addition to measuring benefits to government, this level of analysis is concerned with benefits to society as a whole.

For all types of analysis, the tendency is to underestimate the complexity involved in measuring costs and benefits.

Karoly emphasized that as after-school program advocates look to cost-benefit analyses for evidence to build political support for their cause, it is important for them to understand the caveats of the methodology.

Critical to accurate measurement of costs are:

- Focus on marginal costs, that is, additional costs associated with a particular program relative to the baseline or alternative, and
- Accounting for all consumed resources of value to society, both budgeted (e.g., materials, salaries, rent) and unbudgeted (e.g., costs paid by participants, donated time, value of lost opportunities).

The challenge in measuring benefits begins with the wide range of outcomes that might be considered. In after-school programs, benefits may accrue in several domains for both children and parents, including emotional/cognitive development, education, health, and welfare, income, and crime.

It may not be possible to comprehensively measure costs and benefits. Karoly suggests three reasons why:

- Conversion of outcomes to dollar benefits is challenging, particularly when they pertain to emotional/cognitive development and only slightly less so with health and education.
- Estimated net savings vary with the discount rate and, at a certain point, may no longer generate positive net savings to government.
- Data are often less than ideal because we rarely have long periods of follow-up to observe the kinds of outcomes that eventually generate savings to government and benefits to society.

An expansion of this last point is the fact that costs and benefits accrue over different time periods to different stakeholders. With after-school programs, the time horizon might be fifteen years or more. As a practical matter, policy decisions can rarely be deferred for such long periods of time.

Distribution issues present another challenge in using cost-benefit analysis to advance support for after-school programs. The party that bears most of the costs may not necessarily be the one that accrues most of the benefits. For example, a program in which most of the cost is borne by middle-class taxpayers may benefit schools in which they may or may not have children. “We often aggregate these costs and benefits,” says Karoly, “but in reality they’re different stakeholders, both on the costs and benefits side. The mismatch may complicate the ability to make a case for different types of investments.”

A final issue to consider is whether we can make generalizations from small-scale model programs. Contextual factors, from design and implementation to staffing and training, can affect outcomes and make drawing inferences extremely difficult.

Karoly summed up what we know about cost-benefit analysis by saying, “The types of analyses that use costs and outcomes—whether cost-benefit, cost-savings, or cost-effectiveness—can be extremely powerful tools for evaluating programs and their economic impact. At the same time, I think we have to recognize that some of these analyses may not incorporate all the costs and benefits. We’re dealing with different stakeholders and time horizons, and we don’t know whether the results we’re seeing will generalize on a broader scale and to different subgroups.”

## WHAT DO WE KNOW ABOUT AFTER-SCHOOL PROGRAMS?

In 2000, the William T. Grant Foundation decided to focus 20 percent of its resources on a research area that met these three criteria:

- Public and private funders have made significant investments.
- The issue is “hot” for researchers, policymakers, practitioners, and advocates.
- The issue can be influenced by high-quality evidence.

The foundation board asked its president, Robert C. Granger, Ed.D., to suggest a topic. He proposed improving the quality of after-school programs, and they agreed. A year later, Granger, a participant at the forum, observes two sobering realities:

- 1) Supply issues dominate the field. Getting people to focus on the quality of after-school programs is a secondary concern—and not a strong political issue—when some kids have no place to go after school.
- 2) There are no great empirical findings about how to improve program quality, but there is a tremendous amount of high-quality information in the form of practitioner wisdom.

The good news, says Granger, is that we are learning from research. “It is clear,” he says, “that there is a strong relationship between what kids do after school and how they are doing in a variety of youth outcomes. We know, for example, that kids who are more actively rather than passively engaged in activities after school tend to do better on the things those programs are trying to affect. We also know there is a lot of variation in these programs—by age, gender, and the opportunities that are available to those kids.”

Research funded by the William T. Grant Foundation has documented reasonable consensus on what constitutes a quality after-school program, including characteristics of settings, best practices, and their linkage to youth outcomes.

Still, Granger warns, “this is all correlational stuff. All of the analyses that exist simply try to look at program practices or particular patterns of participation in a variety of settings and relate them to how well kids are doing. Suffice it to say, we don’t know what’s driving these data. We cannot overclaim.”

The non-experimental literature on youth participation and experimental studies of *atypical* programs provide evidence that after-school programs can produce positive effects. But what about *typical* programs? According to Granger, there is no strong basis for claims that typical after-school programs in this country are making a positive difference in youth outcomes. Given this state of affairs, he questions the need for full experimental studies of the effects of current after-school programs. He believes it may be too early to conduct cost-benefit analysis on these typical after-school programs.

A more fertile area for investigation, Granger believes, would be program practices related to youth participation and the relationship of participation to youth outcomes. He would also like to see cost-benefit analyses of high quality staff development programs and would emphasize the voices of practitioners. At the very least, he says, research can describe the seriousness of a problem.

“When you get down to the average kind of program that exists in this field,” says Granger, “I’m persuaded that it makes more sense to focus research on trying to make them better. And one way is to try to figure out what to do to induce more participation and get a better handle on what these kids would have been doing otherwise.”

Over the next ten years, as baby boomers retire and demands on Medicare and Social Security intensify, Granger predicts that the quality of services for youth-related programs will be starved. Thus, he concludes, “driving another nail in poorly funded, not very well implemented programs is not the best way to spend either research or program operation resources.”

“What do we know about interventions meant to improve the quality of after-school programs?” he asks. “Less than we know about changing youth participation. Change demands improvements in will or capacity. But there is very little good theory on this and no strong experimentation that tests possible strategies.” This is where Granger believes research can make its most vital contribution.

## THE COSTS AND BENEFITS OF AFTER-SCHOOL PROGRAMS

Phillip B. Levine, associate professor of economics at Wellesley College and a faculty affiliate at the Joint Center for Research on Poverty, and David J. Zimmerman, professor of economics at Williams College and a research associate at the National Bureau of Economic Research, shared the results of their recent effort to measure the costs and benefits of after-school programs. The After-School Corporation commissioned Zimmerman and Levine to conduct this exercise based on the available research.

From their research, Levine and Zimmerman arrive at a cost-benefit ratio of 3.19. That is, for every dollar spent on after-school programs, \$3.19 in benefits accrue. Their presentation covered the methods and assumptions they used to reach that conclusion, noting many of the same caveats as Karoly and Granger:

- **Some benefits are intrinsically hard to quantify or have not been adequately quantified.** Many benefits may result from participation in after-school programs—some imagined, some not. If, however, no evidence for a benefit exists, the economist must treat its effect as zero. Thus, for example, Levine and Zimmerman do not include non-cognitive benefits from after-school programs (such as increased cooperation) that may in fact have an effect on desired outcomes.
- **People differ, making comparisons of participants to non-participants difficult.** Children differ in their energy levels, degree of motivation, parents' emphasis on education, and desire to do better in life. If measures for these variables are not collected, groups of students may look more alike than they truly are.
- **Random assignment does not ensure differences are fully controlled.** With individuals randomly assigned as participants or non-participants in an after-school program study, we might assume that any differences in performance can reasonably be attributed to the program. However, the question remains whether the group from which participants and non-participants are randomly assigned differs in significant ways from those not involved in the experiment.

This situation, says Zimmerman, creates a “fork in the road.” “I could say, ‘It’s been wonderful talking about this, but I’m sorry there’s nothing I can do.’ Or we can look at analogous programs and try, in effect, to bootstrap some estimates of the effect of

after-school programs. We can ask, 'If after-school programs could generate results like the analogous programs, then what kind of benefit-cost ratio could one imagine?'"

To conduct their analysis, Levine and Zimmerman assume that the cost to provide after-school programming per child per year is \$1,500, based on the cost experience of programs throughout New York state sponsored by The After-School Corporation. Their analysis of benefits focuses only on social, as opposed to private, benefits and addresses three categories of benefits:

- Increased maternal employment and earnings
- Reduced teen risky behavior such as teen childbearing and crime
- Improved educational outcomes such as graduation rates, grade retention, and test scores

At the outset of this presentation, Zimmerman and Levine noted three features of the analogous studies used in this analysis that compromise results:

- The use of matched samples that take into account a few, but not all, characteristics of participants and non-participants
- The bundling of interventions
- The focus on high-risk populations

Not surprisingly, meeting participants had questions and comments on these and several other issues:

- The reliance on studies that have their own challenges
- The assumption that the benefits of a program that costs \$1,500 will be the same in a program that may cost more or less (i.e., that every additional dollar spent has the same effect as every other dollar spent)
- The \$1,500 after-school programming cost per child figure comes from analysis that focused on the elementary population, whereas program costs for older youth are likely to be higher than \$1,500 per child

With respect to the bundling of interventions issue, one meeting participant suggested more study to determine what proportion of effects can be attributed to

the after-school component of a program and what effects result from other interventions.

“That kind of analysis could be done at a relatively low cost,” said Zimmerman. “You could have an experiment where some kids took part in an after-school program that had no sex education component, some kids that had sex education but no after-school, and some kids that had neither and decompose the effects. Maybe you would find that the sex education classes had very little effect. Then we could at least be more confident that keeping kids supervised between 3:00 and 6:00 p.m. is likely to drive the lion’s share of the reduction. I think chiseling away at some of the estimates is exactly the way to go.”

In conclusion, Zimmerman suggested focusing research on one area where significant cost savings might be possible. “Suppose I could prove to a skeptic that crime costs are reduced a great deal,” he said. “That in and of itself may be enough to drive the benefit-cost ratio above one. Then, you could say, ‘There are lots of benefits that are measured poorly. There are lots of benefits that aren’t measured at all. But here’s a benefit that is measured carefully and, in and of itself, is enough to justify this program, even to a skeptical, self-interested taxpayer who doesn’t care about anybody else.’”

## PERSPECTIVES FROM THE FIELD

Mark Greenberg, director of policy for the Center for Law and Social Policy in Washington, D.C., observed that in a lot of areas where government makes decisions, research is not necessary. However, he says, when it comes to programs for low-income individuals—fair or not—there is a double standard that makes research necessary.

Assuming research is necessary, Greenberg posits what kind would matter most: “I would say it needs to be understandable. It needs to be plausible. It needs to be defensible. And, I hate to say, it needs to be somewhat consistent with what people are willing to hear.”

Greenberg sees value in building on studies like Levine and Zimmerman’s cost-benefit analysis. At the same time, he says, “In a context where there is no settled agreement on what the impacts of after-school care are, we have to raise serious questions about whether we’re ready to have cost-benefit analysis.”

Greenberg has heard the following questions asked:

- How should we prioritize research dollars?
- What can be done to make programs better?
- What needs to be done to generate support for sustained or expanded funding?

In making the case for funding of after-school programs, Greenberg believes the most important thing we can do is make a convincing case for their effects.

“If we’re going to argue about whether a program results in a 40 percent decline in teen pregnancy, that’s a problem. But if we could make a strong argument that the program would lead to a 20 percent increase in graduation rates, then frankly I’m not sure you need much else to make your case.”

One example of a study that used cost-benefit analysis to measure the effects of after-school programs came from Detroit.

Grenae D. Dudley, Ph.D., executive director of Detroit’s *Mayor’s Time*, shared that local and state supporters of this after-school program wanted to know what it would

cost in Detroit. Dudley commissioned an independent firm to find out. Based on a review of literature and a survey of community-based providers, the firm concluded that after-school programs cost \$1,830 per year per child in Detroit. “The number was close enough to New York,” says Dudley. “Could people poke holes in it? Yes, but it was credible.”

Next, the supporters wanted to know the return on the public investment. Using information such as the total lifetime income with a high school diploma, taxes paid, and personal savings the program was able to show that for every dollar invested in after-school programs, the return was \$12.19. These numbers were used to open doors and ultimately persuade the mayor to champion a goal to involve 50 percent of Detroit youth in after-school programs.

## FINAL REFLECTIONS AND RECOMMENDATIONS

Participants took part in discussions that surfaced the following key issues:

- **Research in highly politicized environments**—While research helps advance the conversation, it matters much less in highly politicized environments, according to Greenberg, who favors a broader vision of research not limited to experimental design efforts.
- **Research about incremental benefits**—Decision makers may not need cost-benefit analysis to justify a minimum level of after-school programs. The hard question is whether to do more than the minimum. There are a lot of small incremental benefits to children and families as a result of after-school programs. Research should be done to see if these small things lead to big results. For example, perhaps a young boy in an after-school program has the benefit of staying in a safe environment while his mother is at work. This may lead to the child feeling productive and the family earning more money and being stable. With less stress on the family, the boy may avoid crime and parenthood when he reaches high school.
- **Research to compete with other discretionary programs**—Research about after-school should be boosted so that there is as much research regarding these programs as other initiatives competing for discretionary funding. “When the baby boomers start to seriously retire, programs with some evidence for them are going to have a leg up,” said one individual, echoing Granger’s observation.
- **Research that addresses selection bias**—Participation in after-school programs among older children is largely voluntary. Thus, the question arose whether children who choose to participate would do well without the program. Do our studies address this potential selection bias? The consensus was “almost never.”

Participants spent their last hour together discussing and making recommendations for future research. Topics suggested included:

- **Quality:** Define what it is and how much it costs.
- **Desirable outcomes:** Explore which outcomes are common for which types of programs. Focus on outcomes that are precursors to academic achievement rather than increased academic achievement per se.

- **Supplemental services:** Learn more about how they are being implemented and to what effect.
- **Crime reduction:** Determine what we really know about after-school programs' impact on crime reduction among at-risk youth.
- **High-Quality programs:** Highlight best practices and provide “proof of the possible” as models for replication.
- **Target populations:** Develop a better understanding of target populations and their relationship to desired outcomes.
- **Clarify data:** Find out what data exist and what new data are needed, particularly regarding program costs.

Kronley closed the meeting with an overview of the day's themes:

- **Need for definitions:** What do we mean by program, quality, data, audiences and outcomes? What standards can we agree on to define these terms?
- **Relevance of context:** When is it important to develop information that resonates in particular communities? What can we do to develop measures and outcomes that generalize beyond a specific context?
- **Quest for best practices:** What are they? How do they operate? What does it take to motivate youth to participate in after-school programs at a rate that makes a difference?
- **Understanding costs:** What is the real cost of a quality program?
- **“Sweat the small stuff”:** Incremental outcomes—from increased attendance and better grades to reduced crime and substance abuse—do matter. How can the research agenda draw attention to these benefits?

## APPENDIX A

### AGENDA

#### COSTS AND BENEFITS OF AFTER-SCHOOL PROGRAMS

MARCH 7- 8, 2004  
EWING MARION KAUFFMAN FOUNDATION  
AND THE AFTER-SCHOOL CORPORATION

Meeting Location: Kauffman Conference Center  
4801 Rockhill Road  
Kansas City, Missouri

#### SUNDAY, MARCH 7

6:30 – 9:00 p.m. Dinner  
Starkers Restaurant (reception: 6:30 – 7:00 p.m.)

#### MONDAY, MARCH 8

8:15 a.m. Transportation from the Raphael Hotel to Kauffman

8:30 a.m. Breakfast and introductions

9:00 – 9:05 a.m. Welcome and introductory remarks  
*Lucy Friedman*  
*Margo Quiriconi*

9:05 – 9:15 a.m. Framing the day: context and goals  
*Bob Litan*

9:15 – 10:00 a.m. A review of what we know  
*Robert Kronley, meeting moderator*

What do we know about cost-benefit analysis?  
*Lynn Karoly*

What do we know about after-school programs?  
*Bob Granger*

10:00 – 10:15 a.m. Break

10:15 – 11:05 a.m. Analyzing the costs and benefits of after-school programs:  
one approach  
*David Zimmerman*  
*Phillip Levine*

11:05 – 11:15 a.m.	Questions
11:15 a.m.- Noon	Table discussions on the Zimmerman and Levine approach Key questions: How does this approach help practitioners, funders, researchers, policy makers and others in the field? What concerns do you have about this approach?
Noon – 1:00 p.m.	Lunch
1:00 – 2:15 p.m.	Applying cost/benefit analysis to after-school programs: perspectives from the field Policy: <i>Mark Greenberg</i> Practice: <i>Genae Dudley and Rhonda Lauer</i> Foundations: <i>Ed Guajardo Lucero</i>
2:15 – 2:30 p.m.	Break
2:30 – 3:25 p.m.	Table discussions on: What else do we need to know to apply cost-benefit analysis to after-school programs? What further research do we need? Who should do the analysis? What size of an investment should be made?
3:25 – 3:30 p.m.	Developing an agenda for future action <i>Robert Kronley</i>
3:30 p.m.	Adjournment

## **APPENDIX B**

### **PARTICIPANTS**

**Mary Bleiberg**

V.P.– Policy, Planning & Fund  
Development  
The After-School Corporation

**Lucy Friedman**

President  
The After-School Corporation

**George Bohrnstedt**

Senior Vice President of Research  
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**Carol Goss**

Vice President, Programs  
The Skillman Foundation

**Rosalyn Brown**

Community Liaison  
Kansas City, KS Unified Government

**Bob Granger**

President  
William T. Grant Foundation

**Barbara Carney**

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**Gayle A. Hobbs**

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**Sherry F. Comer**

Director and Afterschool Ambassador  
Camdenton RIII Schools

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Former First Lady  
State of Missouri

**Raymond Daniels**

Superintendent  
Kansas City, KS Public Schools

**Robinson Hollister**

Professor of Economics  
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**Andres Dominguez**

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**Lynn Karoly**

Senior Economist  
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**Grenae D. Dudley**

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Superintendent  
Kansas City, MO School District

The **Ewing Marion Kauffman Foundation** of Kansas City works with partners to encourage entrepreneurship across America and improve the educational achievement of children and youth. The Kauffman Foundation was established in the mid-1960s by the late entrepreneur and philanthropist Ewing Marion Kauffman. More information about the Kauffman Foundation is available at [www.kauffman.org](http://www.kauffman.org).

**The After-School Corporation (TASC)** was created in 1998 with a generous challenge grant from George Soro's Open Society Institute to enhance the quality, availability, and sustainability of after-school programs. TASC provides grants, training, and technical assistance to more than 130 community-based organizations in New York, to run programs in schools from 3:00 to 6:00 p.m. every day school is in session. With the help of our supporters and partners, TASC works to ensure that every child will have access to free, quality after-school programs by 2010.