

OUT-OF-SCHOOL RESEARCH MEETS AFTER-SCHOOL POLICY

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There is a new mantra on Capitol Hill. The term “scientifically-based research” is used more than 100 times in the No Child Left Behind legislation. While government officials have historically drawn upon research to inform policy priorities, the current legislation goes so far as to instruct scholars on the tools of their trade and codify it in federal statute.¹

What exactly is scientifically-based research? According to Title IX of the Elementary and Secondary Education Act (ESEA), it is research that:

1. employs systematic, empirical methods that draw on observation or experiment;
2. involves rigorous data analyses that are adequate to test the stated hypotheses and justify the general conclusions drawn;
3. relies on measurements or observational methods that provide reliable and valid data across evaluators and observers, multiple measurements and observations and studies by the same or different investigators;
4. is evaluated using experimental or quasi-experimental designs in which individuals, entities, programs or activities are assigned to different conditions and with appropriate controls to evaluate the effects of the condition of interest, with a preference for random assignment experiments or other designs that contain within-condition or across-condition controls;
5. ensures that experimental studies are presented in sufficient detail and clarity to allow for replication or, at a minimum, offer the opportunity to build systematically on their findings; and
6. has been accepted by a peer-reviewed journal or approved by a panel of independent experts through a comparably rigorous, objective and scientific review.

Against our interpretation of the scientifically-based research standard, we “know” a few things about out-of-school time. We know participation in out-of-school time programs is associated with positive cognitive, physical, social and civic development.² We also know that participation in out-of-school time programs can prevent or reduce problem behavior, especially among economically disadvantaged children and youth.³

There remains, however, a great deal that we do not “know.” We do not know, with the level of scientific certainty desired by the federal government:

- what features of programs lead to what outcomes;
- what levels of participation are optimal for which participants;
- how school-based and community-based programs differ in terms of content, participants and impact;
- how per-child expenditures correlate with quality programming; and
- what activities are most effective under what circumstances.

While research that makes the case for out-of-school time programming is fairly robust, research that can guide implementation, helping to answer specific “how” questions that policy makers and program leaders face on a daily basis, remains thin.⁴ This knowledge gap creates a dangerous space for policy

makers, researchers and program planners. More specific research is underway, but unfortunately, possibilities for doing harm in the interim may outweigh opportunities for doing good:

- **Premature demands to use only scientifically-based programs could thwart or distort expansion efforts.** There is enough research to create general guidelines for practice. Overzealous efforts to insist on specific “proven” models could stymie growth in the field at a time when innovation is still needed.
- **Premature demands to insist on scientifically-based evaluations could yield false negatives that squelch enthusiasm.** Most out-of-school programs, while doing good and important work, are not ready for prime time. Insisting they use experimental designs or achieve long-term outcomes could lead to premature concerns about quality, deflecting attention from sound program development.
- **Insufficient evidence that quality makes a difference could give policy makers and program planners leeway to set low standards.** In the absence of clear standards for what constitutes quality or harm, the press to scale up quickly could fuel a generation of sub-standard programs whose “failure” could cause the movement to end as quickly as it began.

What will it take to avoid these pitfalls? In their own ways, Deborah Vandell, a leading researcher on after-school programs for elementary school students, and Kerry Mazzone, Secretary of Education for California, one of the states leading the country in creating after-school policies, offer the same solution: mutual respect.

Many researchers do not understand what it means to move policy forward in a political context. They see policy in a vacuum. Policy makers have to deal with the political context. They have to deal with the politics of the garbage and the good stuff that came before, and try to make incremental movements forward that bring everyone along.

When we're bill signing, the political questions come up as well as the research questions. We might not move as far as we would like to and as far as the research suggests we should, because of the political context. And that is not even considering the budget question.

— KERRY MAZZONI, CALIFORNIA SECRETARY OF EDUCATION

In the current climate, the gold standard for research is considered the random assignment experiment; I'm not sure that's ethical or appropriate in this case. If we have evidence indicating the positive effects of support-

ive relations with staff and peers and meaningful engagement with activities, how can we ethically assign some children to conditions we know are poor quality? We need to use the best methods we can.

Policy makers also need to know that if we're going into this business we need to be going into it for the long haul. It takes a while to get programs going, and we need to be tracking students over a period of time in order to see results.

— DEBORAH VANDELL, UNIVERSITY OF WISCONSIN

This commentary is the first of a series designed to help policy makers, program planners and advocates sift through the research relevant to after-school policy. In a small way, we hope to help fill the void between the demand to act and the need to act responsibly. Our goal is not only to review research, but to put it in context. In preparing each issue, we will interview researchers and policy makers or implementers to ensure we speak to their concerns. The Forum kicks off the series by stepping back to offer brief answers to five questions:

1. what is known?
2. what is essential?
3. what is realistic?
4. what is measurable? and
5. when will we know more?

In this commentary and others in the series, “out-of-school” will be used to refer to the broader categories of time, place, age and program that include “after-school programs” — four- or five-afternoons-a-week, school-or community-based programs primarily serving elementary school students, but also include evening, summer and weekend programs for teens. The term “after-school” is used in direct quotes from interviews and when the research or policy reference is specifically focused on the narrower definition of program.

WHAT IS KNOWN?

OUT-OF-SCHOOL OPPORTUNITIES REDUCE PROBLEMS AND BUILD SKILLS

People intuitively believe after-school programs are good, so that moves them in the right direction, and then there is research that supports their intuitive position.

— KERRY MAZZONI

Secretary Mazzone’s statement explains why there has been such a ground swell of support for after-school programs. There is research validating almost every reason for believing they are needed to provide protection, prevent or address problems, promote positive behavior, or improve performance or increase preparation.

According to Deborah Vandell, there are four strands of research policy makers should be aware of:

1. research documenting numbers of children in self-care and the conditions under which self-care negatively affects them⁵;
2. evidence of the positive effects of after-school programs for outcomes including school and program attendance, work habits, social skills and academic grades⁶;
3. research about the role and positive impact of other voluntary structured activities (e.g., extracurricular)⁷; and
4. emerging findings related to program quality.⁸

While self-care is not always associated with problem behaviors, there are a number of conditions under which children are at serious risk for behavior problems. These conditions include growing up in situations with less parental monitoring, in high crime neighborhoods and/or in low-income households. For younger children, the impact of self-care is generally more negative.

Juxtaposed to the findings about self-care is evidence of the positive effects of after-school programs for a variety of outcomes, including school and program attendance, work habits, social skills and academic grades. There is some evidence of a positive impact of programming on reading and math achievement. These impacts are more consistently found in studies examining low-income children and less consistently in studies with middle-income children. That is probably in part because many middle-income families are placing their children in extracurricular activities and lessons, rather than five-day-a-week after-school programs.

Researchers have tended to distinguish between extracurricular activities and after-school programs because they initially were viewed as meeting different needs (enrichment versus safety/child care). Like after-school programs, these extracurricular activities have been linked to positive outcomes. Because many are fee-based, many studies have looked largely at middle-income kids.

— DEBORAH VANDELL

Vandell's adept summary of research on the importance of structured after-school programs for children is reinforced by research on the importance of the wider array of community-based out-of-school opportunities for adolescents. But Vandell's fourth strand — program quality — speaks to the research gap between the need to do something and the need to do it right. Her thinking continues below.

WHAT IS ESSENTIAL?

SAFETY, POSITIVE RELATIONSHIPS, CHALLENGING OPPORTUNITIES

Important findings are beginning to emerge related to after-school program quality. Beneficial effects have been associated with high-quality programs; there is also emerging evidence of the negative effects of poor-quality programs. The recent report by the National Research Council described some of these elements of program quality. I see four as key. First, supportive relations with staff. It is important for kids to have staff who care about them, and who know what to do because they have the necessary training and skills. Second, positive peer relations. Third would be opportunities for sustained and meaningful engagement in substantive activities. These can be sports, arts, music, science or literacy. What's important from a quality perspective is that the activities have meaning for the kids and that they are able to do them over a period of time so they can get engaged. An additional quality indicator is that programs are both physically and psychologically safe.

— DEBORAH VANDELL

The NRC report, *Community Programs to Promote Youth Development*, outlines common features of settings that support the development of personal and social assets in young people. Equally important, the report speaks directly to the question of quality by describing what each feature looks like, when present and absent, underscoring emerging research that suggests that poor quality programs can do harm⁹ (see Table 1, pg.4).

The NRC places an important seal of approval on practices that practitioners have been talking about and implementing for years and provides a tremendous boost to discussions about quality standards. But is there evidence that these supports — whether provided by programs, parents or broader social institutions — really make a difference in the long run?

Yes. A new study by Michelle Gambone, Adena Klem and Jim Connell provides additional horsepower to help policy makers and program leaders focus attention on measuring features of program quality. Gambone and colleagues' forthcoming report¹⁰ firmly establishes the connection between "supports and opportunities" — key inputs that can be provided by effective programs and which are included in the NRC list in Table 1 (pg. 4) — and young people's achievement of positive outcomes.

TABLE 1
FEATURES OF POSITIVE DEVELOPMENTAL SETTINGS

BENEFITS ZONE	FEATURES	DANGER ZONE
Physical space is safe; youth feel comfortable.	Physical and psychological safety	Physical or health hazards are present; youth worry about or experience bullying or threats.
Rules and activities are managed consistently and fairly, with mutual respect for peers and adults.	Appropriate structure	Rules and activities are implemented inconsistently, are unclear, change unexpectedly.
Youth have friends in the program and feel supported by staff members.	Supportive relationships	Youth do not have friends in the program and/or do not feel supported by staff members.
Youth are encouraged to join many groups and activities; staff address exclusive behavior.	Opportunities to belong	Cliques form and go unaddressed; youth experience exclusion from activities during the program.
Staff have high expectations and encourage and model positive behaviors.	Positive social norms	Staff allow negative behaviors to go unchecked.
Program is challenging and based on youth interests and input; progress is assessed individually.	Support for efficacy and mattering	Youth input is not considered; activities are not challenging; youth are compared to one another.
Youth learn relevant skills; staff help youth look for opportunities to build skills; youth build skills over time.	Opportunities for skill building	Program does not address areas of interest to youth and does not engage youth in building skills over time.
Parents, program and schools communicate regularly.	Integration of family, school and community efforts	No communication between parents, program and school.

Adapted from National Research Council and Institute of Medicine. (2001). *Community Programs to Promote Youth Development*. Jacquelynne Eccles and Jennifer A. Gootman, eds. Board on Children, Youth, and Families, Division of Behavioral and Social Sciences and Education. Washington, DC: National Academy Press. Available online at www.nap.edu/catalog/10022.html.

Through longitudinal analysis, the researchers illustrate that youth with high-quality supportive relationships early in high school were 100 percent more likely than average youth to have optimal outcomes at the end of high school. On the contrary, youth reporting unsupportive relationships in their early teens were 94 percent more likely to have poor outcomes at the end of high school. Similarly, having opportunities to experience challenging, engaging learning activities early in high school increases the probability of having good outcomes by 71 percent, while youth with low levels of challenging learning activities early in high school were 59 percent more likely than youth in general to have poor outcomes at the end of high school.¹¹

This powerful secondary analysis underscores the positive impact that supports and opportunities can have on long-term outcomes and speaks directly to the kinds of settings, activities and experiences out-of-school time programs need to offer in order to have an impact.

TO WHAT OUTCOMES CAN WE REALISTICALLY EXPECT AFTER-SCHOOL PROGRAMS TO CONTRIBUTE?

SHORT-TERM CHANGES IN SOCIAL SKILLS AND BEHAVIORS, WORK AND STUDY HABITS, GRADES

Determining what out-of-school programs should be held accountable for is the primary place where research and

policy frequently clash. All too often, programs are simply unable to generate the outcomes policy makers would like to claim. Answering three important sub-questions can help researchers, planners and policy makers find middle ground:

First, what has research demonstrated are long-term goals for positive development? Once again we turn to the NRC report, which provides a thorough synthesis of the literature on this question. The authors point to range of skills, behaviors and attitudes they call “personal and social assets that facilitate development” (see Table 2, pg. 5).

Second, given this array of important and interconnected goals for young people, what can after-school programs realistically impact? Based on the quality, focus and duration of programs and the consistency with which young people attend, what is realistic varies a great deal. Again, as the NRC report makes clear, there is basic research linking program attendance with the full range of assets they identify. But the effects — difficult to attribute to individual programs — are not immediate, and differences in duration, dosage and content are not guaranteed. Vandell speaks directly to this issue:

I want to caution policy makers and funders that it takes a long time for programs to get started and to get to quality. I'd caution against having high expecta-

tions about what new programs can do or expecting impact in the first six months. The early childhood literature has strongly shown that the effects of programs are related to sustained involvement. So to get substantial effects after brief exposure is unrealistic. I believe we should be looking at:

- program and school attendance;
- a range of child behaviors such as disruptive, withdrawn, helpful and supportive;
- work and study habits; and
- grades, with caution.

The caution I put on grades is that it's important to take a building block approach. There is no reason to expect an immediate impact on grades. You build attendance, you work on work habits, you decrease problem behaviors, you increase positive relationships, and then could expect a cascade effect to impact grades. I did not include standardized test scores. The literature suggests that first you would impact grades, performance, and then eventually test scores.

Third, what is measurable? When it comes to measurement, Vandell is confident that the outcomes she highlighted — program and school attendance, social skills and behaviors, work and study habits and grades — are measurable. “We have many reliable, straightforward measures to employ in the study of after-school programming. In many cases, these are data that schools or teachers are already collecting.”

It is extremely important that researchers and policy makers, educators and youth workers find middle ground on this issue. There is no debate that academic performance is important. But there is substantial debate about how it should be measured. Holding after-school programs accountable for improving standardized test scores at a time when schools are struggling under the weight of this demand makes little sense. At best, policy makers could push for proportionate joint accountability and encourage schools and out-of-school programs to work together to achieve this long-term goal.

Equally important, the grounds for partnership expand quickly when the term “academic achievement” is unbundled. Academics is a term that, in most people’s minds, includes three distinct assets: basic skills (reading, writing, speaking, computing), higher order skills (planning, debating, problem-solving) and content knowledge (history, literature, engine repair). Some content areas are associated with school more than others, but the skills described can be and are learned in multiple settings. The

TABLE 2
PERSONAL AND SOCIAL ASSETS THAT FACILITATE POSITIVE YOUTH DEVELOPMENT

PHYSICAL DEVELOPMENT

- good health habits; and
- good health risk management skills.

INTELLECTUAL DEVELOPMENT

- knowledge of essential life skills;
- knowledge of essential vocational skills;
- school success;
- rational habits of mind — critical thinking and reasoning skills;
- in-depth knowledge of more than one culture;
- good decision-making skills; and
- knowledge of skills needed to navigate through multiple cultural contexts.

PSYCHOLOGICAL AND EMOTIONAL DEVELOPMENT

- good mental health including positive self-regard;
- good emotional self-regulation skills;
- good coping skills;
- good conflict resolution skills;
- mastery motivation and positive achievement motivation;
- confidence in one’s personal efficacy;
- “planfulness” — planning for the future and future life events;
- sense of personal autonomy/responsibility for self;
- optimism coupled with realism;
- coherent and positive personal and social identity;
- prosocial and culturally sensitive values;
- spirituality or a sense of a “larger” purpose in life;
- strong moral character; and
- a commitment to good use of time.

SOCIAL DEVELOPMENT

- connectedness — perceived good relationships and trust with parents, peers and some other adults;
- sense of social place/integration — being connected and valued by larger social networks;
- attachment to prosocial/conventional institutions, such as school, church, non-school youth programs;
- ability to navigate in multiple cultural contexts; and
- commitment to civic engagement.

Adapted from National Research Council and Institute of Medicine. (2001). *Community Programs to Promote Youth Development*. Jacquelynne Eccles and Jennifer A. Gootman, eds. Board on Children, Youth, and Families, Division of Behavioral and Social Sciences and Education. Washington, DC: National Academy Press. Available online at www.nap.edu/catalog/10022.html.

term “performance” implies both level and growth and can be measured across a range of content or skill areas.

Vandell offers four performance categories that educators and program planners could track. They do not cover the full range of assets identified as important by the NRC report, but they certainly include areas that, if generalized, could define a middle ground — goals that

programs and schools can work jointly to achieve:

1. better attendance in school classes *and* out-of-school programs, including sports and other extracurricular activities;
2. better social skills and increased social interaction and contribution in school classes, school buildings *and* in out-of-school programs and opportunities;
3. fewer disruptive or isolating behaviors demonstrated in school or out; and
4. improved capacity to take initiative, plan projects and complete assignments in school or out.

These outcomes create the beginning of a community report card that could galvanize communities’ interest in supporting their children’s preparation and preventing or reducing problems. Researchers could then study the connection between increases in school-based and out-of-school learning opportunities and overall student outcomes, measuring progress by school, by age group or neighborhood.

WHAT ELSE SHOULD BE MEASURED?

CONSENSUS IS BUILDING THAT SPECIFIC PRACTICES LINK TO POSITIVE OUTCOMES AND ARE OBSERVABLE AND MEASURABLE

There is growing evidence that quality out-of-school opportunities matter — that they complement environments created by schools and families and provide important “nutrients” that deter failure and promote success — and that they matter in ways that are observable and measurable. But for *quality* discussions to take root in policy debates, there has to be evidence that quality influences outcomes and can be defined, measured and improved. There is reason to be hopeful on all fronts.

Community Network for Youth Development in San Francisco teamed up with researchers Michelle Gambone and Jim Connell to launch a continuous program improvement project with Bay Area youth programs. Together they demonstrated that programs can be held accountable for meeting standards in the areas of safety, high-quality relationships, meaningful youth involvement, skill building and community involvement. They further demonstrated that programs have the willingness and capacity to improve, and that investments in capacity building over time are worthwhile and valuable.

TABLE 3
EMERGING CONSENSUS IN DEFINING AND ASSESSING PROGRAM QUALITY

YOUTH OPPORTUNITIES FOR . . .	STAFF PRACTICES AND SUPPORTS THAT . . .	ADMINISTRATIVE AND MANAGEMENT POLICIES AND STRUCTURES THAT ENSURE . . .
<ul style="list-style-type: none"> • membership and mattering; • reflection and expression; • exploration and skill building; • planning and decision making; and • work and service. 	<ul style="list-style-type: none"> • create fair, supportive environments; • provide individual supports; • promote learning and skill building; • promote real-life skill-using; and • involve families and community. 	<ul style="list-style-type: none"> • consistent, well-staffed, inviting environments; • safe, healthy environments; • well-trained, high-performing staff and volunteers; • high-quality programming; and • connections to family and community.

In a recent convening of researchers and evaluators, the Forum reviewed existing and forthcoming program quality assessment tools.¹² A high degree of consensus emerged around elements of program quality across instruments. Evaluators, researchers and practitioners (often working independently of one another) are defining elements of quality in compatible ways. When we looked beneath the scaffolding of each individual tool, quality was defined on three levels: 1) youth opportunities; 2) staff practices and supports; and 3) administrative and management policies (*see* Table 3). The high degree of alignment between these elements of quality and the features of positive developmental settings described by the NRC is critical as the field moves from a focus on *doing something* in the out-of-school hours to guiding the implementation of *what to do* during those hours.

But research that can help us understand which elements are most important for which youth under what circumstances has only just begun.

WHEN WILL WE KNOW MORE?

SOON — WITH SHARPER CONNECTIONS BETWEEN WHO, WHAT, WHEN, WHY, HOW MUCH AND HOW WELL

Forecasting ahead, we look to two studies that will provide the field with clearer statements about the implementation and impact of after-school programs: Vandell’s study *Effects of Promising After-School Programs*, and the evaluation of the federal 21st Century Community Learning Centers (CLC) program.

Vandell’s study will tackle the important policy question of whether after-school programs can effectively support positive outcomes and negate negative outcomes for children and youth in situations of risk. It will also explore promising staff and institutional practices. With the overall policy report not due out until 2006, findings from this

study are scheduled for release in 2004 (on promising practices), 2005 (on intermediate student outcomes) and 2006 (on long-term student outcomes).

The findings should create sharper understandings about the type and level of impact that is reasonable to expect from after-school programs. They should help answer critical questions about the amount of exposure to high-quality experiences that young people must have to set up the conditions for the most favorable intermediate and long-term outcomes. As a result, we should be able to formulate more precise policy to guide the implementation of promising practices for practitioners.

The 21st Century CLC evaluation, headed up by Mathematica Policy Research Associates, is a constellation of studies being conducted between 2000 and 2003. Several rounds of reports will be published through 2004. These studies will answer questions about 21st Century CLC programs' impact on academic achievement and social behavior; program implementation and practices; motivation for participation in programs and how participants and non-participants use out-of-school time; the relationships between schools and after-school programs; and the quality practices of mature, non-21st Century CLC programs.

The combined data from these studies will provide us with important answers to the key questions posed early in this commentary and will result in sharper pictures and clearer statements about after-school programs. In the interim, it is important to steer clear of the pitfalls of placing premature or unrealistic demands on programs. Otherwise, bad practices, perceptions and policies may solidify to such an extent that even robust, scientifically-based research findings won't be able to change them.

KEY RESOURCES

Rather than present a comprehensive list of resources, each commentary in the series will highlight a handful of organizations working on the topic at hand. Several organizations produce and disseminate timely, high-quality information about research and evaluation on after-school programs. We suggest visiting:

- **Afterschool Alliance** (www.afterschoolalliance.org) maintains summaries of existing and new studies related to after-school issues. In addition to new basic research and program evaluations, Afterschool Alliance tracks polling data on the public's opinions related to after-school.
- **Harvard Family Research Project** (www.hfrp.org) has authored several relevant reports including *A Guide to Evaluating Small-Scale Out-of-School Time Programs* and *Evaluation of 21st Century Community Center Programs: A Guide for State Education Agencies*. Their database of out-of-school time evaluations provides accessible profiles of evaluations of large and small out-of-school time programs and initiatives.
- **Finance Project** (www.financeproject.org) develops and disseminates an array of concrete and user-friendly tools designed to support out-of-school time programs and organizations in terms of program development and financing, sustainability, and measuring and using results.
- **National Institute on Out-of-School Time** (www.niost.org) compiles research reports, fact sheets and issue briefs related to out-of-school time. Their Cross

Cities Network emphasizes the role of municipal leaders in out-of-school time and includes a series of research briefs designed to support decision makers.

ENDNOTES

- ¹ In February 2002, the U.S. Department of Education hosted a seminar on Scientifically-Based Research. One of several commissioned works included *The Logic and Basic Principles of Scientific Based Research*, by Michael Feuer and Lisa Towne, available at www.ed.gov/offices/OESE/esea/research/feuer-towne-paper.html. For a summary of the seminar, go to www.ed.gov/offices/OESE/esea/research/.
- ² Key researchers include Jill Posner, Deborah Vandell, Jacquelyne Eccles and Bonnie Barber. The most thorough review of research and evaluation studies to date can be found in National Research Council and Institute of Medicine. (2002). *Community Programs to Promote Youth Development. Committee on Community-Level Programs for Youth*. Jacquelyne Eccles and Jennifer A. Gootman, Eds. Board on Children, Youth and Families, Division of Behavioral and Social Sciences and Education. Washington, DC: National Academy Press. Available online at www.nap.edu/catalog/10022.html.
- ³ Key researchers include Joseph Tierney, Doug Kirby, Andrew Hahn. The most thorough review to date can be found in National Research Council and Institute of Medicine. (*Ibid*). For a summary of relevant studies, see "Does Participating in Out-of-School Time Opportunities Make a Difference?" in the *FYI Newsletter* 2(1) (2002, Summer), topic: Out-of-School Opportunities: City-Level Responses. Available online at www.forumforyouthinvestment.org/fyi/sum2002cover.htm.
- ⁴ When researchers at RAND attempted to establish a set of model after-school care practices supported by scientific studies, they abandoned their meta-analytic method because too few studies met the standards for inclusion. A summary of their report is available online at www.rand.org/publications/RB/RB2505/. Beckett, M., Hawken, A., & Jackowitz, A. (2001). *Accountability for After-School Care: Devising Standards and Measuring Adherence to Them*. Santa Monica, CA: RAND.
- ⁵ Several researchers have documented the impact of self-care on children. For a summary of relevant studies, see Capizzano, J., Tout, K., & Adams, G. (September 2000). *Child Care Patterns of School-Age Children with Employed Mothers*. Washington, DC: Urban Institute. Available online at <http://newfederalism.urban.org/pdf/occa41.pdf>.
- ⁶ Research on the positive effects of after-school programs was first compiled and disseminated in 1992 by the Carnegie Council on Adolescent Development in *A Matter of Time*. For a recent summary, see "Does Participating in Out-of-School Time Opportunities Make a Difference?" in the *FYI Newsletter* 2(1) (2002, Summer), topic: Out-of-School Opportunities: City-Level Responses. Available online at www.forumforyouthinvestment.org/fyi/sum2002cover.htm.
- ⁷ Key researchers include Reed Larson and Jacque Eccles. For a summary of their research, see "Where Are Young People Really Learning" in the *FYI Newsletter* 1(1) (2001, August), topic: Young People Continually Learning. Available online at www.forumforyouthinvestment.org/fyi/aug2001cover.htm.
- ⁸ Work by Deborah Vandell and others on program quality is summarized in RAND's 2001 report mentioned above, online at: www.rand.org/publications/RB/RB2505/.
- ⁹ Work by Deborah Vandell and colleagues has demonstrated that large staff-to-child ratios, lower staff education and fewer program activities are associated with negative child behaviors. For a summary of her finding related to program quality see RAND's 2001 report, online at: www.rand.org/publications/RB/RB2505/.
- ¹⁰ Gambone, M.A., Klem, A. & Connell, J. (Forthcoming). *Finding Out What Matters for Youth: Testing Key Links in a Community Action Framework for Youth Development*. Philadelphia: Youth Development Strategies, Inc., and Institute for Research and Reform in Education.
- ¹¹ To test links between supports and opportunities and later outcomes, the researchers identified high-quality existing data sets with information on youth's experiences of supports and opportunities as well as short- and long-term outcomes. They reviewed and recombined existing survey questions and indicators into measures of each support, opportunity and outcome.
- ¹² For a summary of the February 2002 meeting the Forum convened entitled "Defining, Assessing and Improving Youth Program Quality," go to www.forumforyouthinvestment.org/youthprogramquality.htm.