

Can After-School Programs Help Level the Playing Field for Disadvantaged Youth?

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EXECUTIVE SUMMARY

As schools struggle to meet federal achievement standards, after-school programs are increasingly viewed as a potential source of academic support for youth at risk of school failure. The hope among youth advocates and policymakers is that after-school programs can partially compensate for the inequities that plague our nation's schools and play a role in efforts to narrow gaps in achievement between more and less advantaged students.

As this review of research suggests, however, rates of participation in after-school programs remain relatively low among disadvantaged and minority youth – the very youth who may be most in need of academic assistance. We highlight potential reasons for these low participation rates and examine the proposition that increasing rates of after-school participation among economically disadvantaged and minority youth will lead to more equitable academic outcomes. We (a) describe the current state of after-school programs, including rates of participation across different socioeconomic groups, (b) review evidence on the academic benefits of participating in after-school programs, (c) discuss steps that could be taken to increase access to high quality, sustainable after-school programs, (d) attempt to quantify the potential impact of increasing disadvantaged youths' rates of after-school participation on achievement gaps, and (e) make recommendations for future research and policy.

Current State of After-School Programs

We distinguish after-school programs from other after-school pursuits (e.g., single-focus extracurricular activities) and define such programs as those that: (a) operate on a regular basis during nonschool hours throughout the academic year; (b) are supervised by adults; (c) offer more than one activity (e.g., homework help, recreation, arts); and (d) involve other youth.

Extant studies provide surprisingly few national estimates of the percentage of American

school-aged youth (K-12) who attend after-school programs. What we do know, however, suggests that rates of participation are relatively low for all youth (10-20%), including economically disadvantaged and minority youth. While studies often suggest that the existing supply of after-school programs is adequate to meet the demands of low-income families, low income youth may be unable or unwilling to participate in available programs for reasons that include participant fees, poor access to safe transportation, conflicting obligations, and negative attitudes toward programming.

Academic Benefits of After-School Programs

The extant literature indicates that participation in after-school programs – in particular, those that offer both youth development activities and an academic component – may lead to small gains in academic outcomes. Research also provides tentative evidence that youth who spend more time in after-school programs – particularly during adolescence – may derive greater academic benefits than youth who spend less time. Perhaps most importantly, preliminary evidence shows that academically at-risk youth may benefit more from participation in after-school programs than their higher achieving peers. Our ability to draw causal conclusions about the academic benefits of after-school programs is limited by methodological shortcomings in the extant literature, but, as a field, it seems prudent to move forward based on our “best guesses” and take steps to ensure that all youth can access the potentially beneficial activities offered through high quality after-school programs.

Challenges in Increasing Access to After-School Programs

The funds available for after-school programs through federal, state, and local initiatives has increased dramatically in recent years, and current research suggests that the supply of programs is adequate to meet demand. Nonetheless, advocates

and policy researchers have identified a number of other funding-related obstacles that may interfere with efforts to provide disadvantaged youth with greater access to high quality after-school programs. First, evidence indicates that many current funding mechanisms do not facilitate the development of sustainable programs. Second, the administrative burdens faced by programs for lower-income youth are considerable. Efforts to combine funds from varied public and private sources may detract from time and resources that could be spent on the provision of direct services. Finally, funding priorities that focus only on programming to the exclusion of staff training and quality improvement activities may make it difficult to provide disadvantaged youth with access to high quality programming. These elements of current policies and funding practices – in combination with the above-described barriers to participation among disadvantaged youth – likely make it difficult to provide broad access to strong after-school programs for lower-income youth.

Academic Implications of Increasing Access to After-School Programs

Research is necessary to see whether we can increase after-school participation rates among economically disadvantaged youth by removing the obstacles and barriers described above, but it seems possible, at least in theory, to do so. Thus, we conducted some “back-of-the-envelope” computations to show how increasing after-school participation rates among economically disadvantaged youth might reduce gaps in achievement test scores between white and minority students. We examined the impact of increasing rates of after-school participation to 100% among youth living below 100-200% of the federal poverty level – youth who are disproportionately black and Hispanic. We recognize that increasing rates of participation to 100% is not a realistic goal; full participation would entail extremely large increases in participation. Yet, this approach clearly demonstrates that even a massive expansion in participation in after-school

programs would result only in small reductions in the achievement gap. We find that an increase in participation of this magnitude would decrease the black-white achievement gap by only 2-4% in reading and 4-7% in math, and would decrease the Hispanic-white gap by 2-5% in reading and 5-12% in math. These findings highlight an essential point: After-school programs are best viewed as one part of a much larger, multifaceted approach toward closing the achievement gap.

Recommendations for Research and Policy

There are a number of unanswered research questions that have important implications for our ability to increase rates of participation in high quality programs and improve academic outcomes among disadvantaged and minority youth. We need more research on (a) the root causes of low participation rates among disadvantaged youth, (b) differences in program quality for more versus less advantaged youth, (c) the academic implications of high quality, “evidence-based” after-school programs for disadvantaged youth, (d) methods of improving the quality of after-school programs that serve disadvantaged youth, and (e) differences in the benefits of participation in after-school programs across socioeconomic strata.

Policies on after-school funding, as they currently stand, may also impede efforts to increase disadvantaged youths’ rates of participation, particularly in high quality programs. Thus, we urge policy researchers to determine how best to (a) align funding priorities with measures that will truly improve access to programs, rather than simply expanding the supply of programs, (b) align funding priorities with measures that will improve program quality, and (c) ensure that public funding mechanisms facilitate program sustainability.

OVERVIEW

American school-aged youth (grades K-12) spend a larger percentage of their weekly waking hours in discretionary activities than in school (Hofferth & Sandberg, 2001). The way that children spend this discretionary time has been a source of concern for parents, youth advocates, and policymakers since at least the early 20th century, when child labor reforms created vast expanses of leisure time for youth. After-school programs (defined in more detail below) are a response to this concern and have been a part of the child-care landscape for more than 100 years (Halpern, 2002). Throughout the majority of the 20th century, after-school programs were primarily viewed as a way to protect youth – particularly poor youth – from the dangers in their communities (Bodilly & Beckett, 2005; Halpern, 2002). Increasingly, however, policymakers are recognizing the potential for after-school programs to play a broader role in promoting healthy growth and development for all youth, and for economically disadvantaged youth in particular (Pittman, Irby, & Ferber, 2000).

As schools struggle to meet federal achievement standards, after-school programs are also increasingly viewed as a potential source of academic support for youth at risk of school failure – a group that includes disproportionately large numbers of economically disadvantaged and ethnic minority youth. The hope among youth advocates and policymakers is that after-school programs can partially compensate for the inequities that plague our nation's schools and play a role in efforts to narrow gaps in achievement between more and less advantaged students. This hope is bolstered both by a wealth of decades-old research that suggests that more “time on task” (i.e., time spent engaged in academic activities) is associated with positive academic outcomes (see Stallings, 1980, for review), as well as by promising findings from recent evaluations of several after-school programs.

No one would argue, however, that after-school programs alone can close sociodemographic gaps in

achievement. Most stakeholders would agree that a comprehensive overhaul of many systems and institutions (e.g., schools, health care, public assistance) is necessary to achieve this end. Nonetheless, evidence reviewed below suggests that after-school programs do have the potential to boost academic performance somewhat, particularly among disadvantaged children. Accordingly, federal, state, and local funds for after-school programs have increased substantially over the last decade. The U.S. Department of Education, for example, now spends over \$1 billion on after-school programs through its 21st Century Community Learning Centers.

As this review of research suggests, however, rates of participation in after-school programs remain relatively low among disadvantaged and minority youth – the very youth who may be most in need of academic assistance. The overarching aim of this paper is therefore to highlight potential reasons for these low participation rates, and to examine the proposition that increasing access among economically disadvantaged, minority students will lead to more equitable academic outcomes. We thus begin with a description of the current state of after-school programs, focusing on program content and structure, the myriad sources of program funding, and barriers to program access among disadvantaged youth. Second, we review evidence on the academic benefits of participating in after-school programs and discuss the extent to which youth at risk of school failure may be particularly likely to derive academic benefits from participation. Third, we discuss some of the steps that could be taken to increase access to after-school programs among disadvantaged and minority youth. Fourth, we present results from some computations that very roughly quantify the potential impact of increasing disadvantaged youths' access to after-school programs on racial/ethnic gaps in achievement. Finally, we conclude with a series of recommendations for further research on after-school programs and the policies that shape them.

The Current State of After-School Programs

Defining After-School Programs

After-school programs are only one of the many types of activities available to youth during the nonschool hours. Although participation in any type of structured, organized activity may benefit youth, the goal of this paper is to evaluate the specific role that formal after-school programs can play in narrowing achievement gaps for youth from different sociodemographic backgrounds. We focus specifically on formal after-school programs because these are the programs that are typically at the center of debates about the educational payoff of public funding for youth activities. It is therefore important to synthesize and present what we know about these programs (as distinct from other types of after-school pursuits) and their potential to boost youths' academic performance.

We define formal after-school programs as those that (a) operate on a regular basis (e.g., daily, weekly) during nonschool hours (after school, before school, weekends) throughout the academic year, (b) are supervised by adults, (c) offer more than one activity (e.g., homework help, recreation, arts and crafts),¹ and (d) involve other youth (i.e., group based).² These criteria are consistent with those commonly used in the literature to distinguish these multi-service programs from single-focus extracurricular activities (e.g., dance classes). After-school programs that meet these criteria may be provided by schools or community-based agencies, and well known examples include programs provided through 21st Century Community Learning Centers, Boys and Girls Clubs, Girls Inc., and LA's BEST.

The breadth of our definition reflects the diversity of available after-school programs; goals and activities vary widely across programs. Some program providers and funders believe that the primary goal of after-school programs should be to provide youth with extra time to master the academic skills taught in school. Others, however, believe that after-school programs should focus on promoting youth

development opportunities and on providing supports not available elsewhere. Some programs thus focus more heavily on academics and others focus more heavily on recreation and cultural enrichment. Despite the different emphases, many after-school programs – even those specifically aimed at improving academic achievement – are multifaceted and include a mix of academic, social, cultural, and recreational activities (Dynarski et al., 2003; Redd, Cochran, Hair, & Moore, 2002). The differences among formal after-school programs lie primarily in the proportion of time and resources devoted to these activities.

Despite its breadth, our definition of after-school programs does not include other out-of-school time pursuits like school- and community-sponsored extracurricular activities (e.g., sports teams, marching band, service clubs and activities), classes and lessons (e.g., dance classes, music lessons), tutoring (e.g., SAT preparation), and religious activities. These activities offer participants a venue for exploring and developing one specific interest or skill set. The broader aims of after-school programs, in contrast, are to provide youth with regular access to a safe and enriching environment during the nonschool hours.

In restricting our focus to formal after-school programs, we do not intend to minimize the potential benefits of other out-of-school time pursuits or their relevance to youth. Indeed, research shows that participation in single-focus school-based extracurricular activities, for example, is associated with a host of academic, psychosocial, and behavioral benefits for youth (see Feldman & Matjasko, 2005, for review). Moreover, research suggests that the vast majority of both lower- and higher-income youth (i.e., at least 70% of adolescents) participate in such single-focus activities (Feldman & Matjasko, 2007). Rather, we have chosen to focus on multi-focus formal after-school programs because policymakers and other stakeholders are currently debating the academic

value of these programs, as well as the extent to which public funds should be used to support them.

Funding for After-School Programs

The costs of operating after-school programs are substantial. In an effort to estimate the average yearly costs of a quality after-school program per participant “slot,”³ Grossman and colleagues recently surveyed 111 after-school programs located across six major U.S. cities (Boston, Charlotte, Chicago, Denver, New York, and Seattle; Grossman, Lind, Hayes, McMaken, & Gersick, 2009). The sample of after-school programs for this study included only established, quality programs, defined as those that had been in operation for at least two years and that had acceptable staff-to-youth ratios, high youth participation rates, and evidence of strong performance in several other areas (e.g., a clear organizational mission; adequate space and materials; formal orientation, training, and performance reviews for staff). Grossman and colleagues (2009) estimated that the average annual cost of a participant slot in an urban elementary/middle school program was \$4,320, and that the average annual cost of a participant slot in an urban teen program (which may include middle and/or high school aged students) was \$4,580.⁴ These costs reflect expenditures for staff salaries and benefits, space and utilities, administrative costs, transportation, and other costs (e.g., student stipends, snacks or meals, materials and supplies, staff training; Grossman et al., 2009).

After-school costs are typically covered by some combination of the following four revenue sources: fees paid by parents, funds from private sources (e.g., foundations, local business partners, community-based organizations), funds from public sources (i.e., federal, state, and local sources), and in-kind contributions (Halpern, Deich, & Cohen, 2000). The above-described cost study by Grossman and colleagues (2009) found that, across the sampled urban after-school programs, parent fees made up 2-9% of the total pool of funding sources, private funds made up 39-45%, public funds made up 32-33%, and in-kind contributions made up

19% of the total pool.⁵ As discussed below, however, programs vary considerably with respect to the percentage of costs covered by these four sources of revenue. Not surprisingly, much of this variation is along socioeconomic lines.

Although the vast majority of programs require participants to pay fees, the fees charged by programs that serve lower-income youth are often lower and cover a smaller percentage of program costs than do fees charged by programs that serve higher-income youth (Pittman, Wilson-Ahlstrom, & Yohalem, 2003). For instance, in a study of 60 after-school programs targeting primarily low-income youth in Chicago, Seattle, and Boston, investigators found that participant fees typically accounted for 15-20% of program revenue (Halpern, 1999). This is in contrast to programs for more affluent youth, where participant fees can account for up to 70-80% of program revenue (Halpern, 1999).

Because programs for lower-income youth cannot and should not require participants to pay more than nominal fees, these programs depend heavily on funding from external sources. After-school programs receive funds from a variety of private sources, including foundation grants and partnerships with local businesses and community-based organizations. There are too many such private organizations to list and describe here, but, as a point of reference, the website of The After School Corporation (TASC) lists current grant and other funding opportunities from private organizations (www.tascorp.org/content/opportunities). Private contributions vary greatly from program to program, making it difficult to estimate the percentage of program costs that are typically covered by private organizations.

Public funds – particularly at the federal and state level – are also a very important source of revenue for programs that serve lower-income youth. Although many agencies within the federal government provide funding for after-school programs (e.g., the Department of Education, Department of Justice, Department of Health and Human Services, and Department of Labor), two of the largest sources of funding – the

Child Care and Development Fund (CCDF) and Temporary Assistance for Needy Families (TANF) – are sponsored by the U.S. Department of Health and Human Services (AfterSchool.gov, 2009). Funds from both sources are allocated to, and administered by, the states as block grants. Neither source of funding is dedicated exclusively to after-school programming, but both allow for spending on after-school programming, and both target low-income children almost exclusively. The CCDF subsidizes child care costs – including the costs of after-school care for children ages 5-12 – for low-income families, and also allocates a small portion of funds to be spent on activities aimed at improving program quality (AfterSchool.gov, 2009). TANF funds, which are primarily used to provide cash assistance to low-income families, may also be used to support after-school programming and initiatives, either directly or through a transfer of funds to the CCDF.

Although not as large a source of funds as the CCDF (The Finance Project, 2007), the 21st Century Community Learning Centers (21st CCLC) initiative is the only federal funding stream dedicated exclusively to after-school programs (Afterschool Alliance, 2008a). The 21st CCLC funding stream, sponsored by the U.S. Department of Education, was originally authorized in 1994 under the Elementary and Secondary Education Act to create school-based programs to meet the educational, health, social service, cultural, and recreational needs of rural and inner-city communities (Improving America's Schools Act, 1994). Reauthorization of 21st CCLC in 2001 under the No Child Left Behind (NCLB) Act resulted in several major changes. First, administrative responsibilities were transferred to state education agencies (SEAs). States now receive a portion of federal 21st CCLC funds based on their share of Title I funding for low-income students, and local education agencies and nonprofit organizations may apply to the SEAs for these funds (Afterschool Alliance, 2008a; Fortune, Padgett, & Fickel, 2005). NCLB requires that states give funding priority to programs that serve students in high-poverty and/or low-performing schools. Second, reauthorization under NCLB significantly narrowed the goals of 21st CCLC and strengthened its' focus

on academics. One of the primary goals of 21st CCLC is to help students meet state and local achievement standards in math and reading (U.S. Department of Education, 2009).

The 2009 appropriation of \$1.13 billion makes 21st CCLC one of the largest existing sources of public funding for after-school programs. Appropriations reached a relative plateau after 2002, however, and the currently appropriated amount falls far short of the \$2.5 billion originally authorized for 21st CCLC under NCLB (Afterschool Alliance, 2008a). As a consequence, only a relatively small percentage of applicants receive funding (26% in 2006; Afterschool Alliance, 2008a). Furthermore, 21st CCLC funding authorization can easily fall victim to economic downturns. For instance, in 2008, the Bush administration proposed to cut \$300 million from the program's budget (Afterschool Alliance, 2008b). Although this cut was ultimately not made, 21st CCLC funds remain vulnerable to such proposals.

Increasingly, state governments are also devoting resources to after-school programming. As of February 2008, 38 states had created statewide after-school networks to “develop state-level supports and policies to ensure quality and sustainable after-school programs” (Afterschool Alliance, 2008a). California's After-School Education and Safety (ASES) Program Act of 2002 – better known as Proposition 49 – is one of the best known examples of a state-level funding stream dedicated to after-school programs. Proposition 49 allowed for more than a four-fold increase in California's spending on after-school programs in elementary and middle schools – from \$121.6 million prior to Proposition 49 to \$550 million (California Department of Education, 2007a, 2008). Local education agencies and nonprofit organizations working with the approval of local education agencies are eligible to apply for these funds (California Department of Education, 2007b, 2009). Although Proposition 49 aims to provide after-school funding for all elementary and middle school students, the legislation requires that priority be given to maintaining or increasing funding for programs already funded under ASES (California

Department of Education, 2007a). In distributing funds to schools under ASES, consideration is also given to the percentage of students who receive free or reduced lunch and to other indicators of need (e.g., neighborhood SES, availability of programs in a community, juvenile crime rates; California Department of Education, 2007b). Like 21st CCLC, Proposition 49 has a strong academic component; the act requires that programs include an educational and literacy element, as well as an educational enrichment element (California Department of Education, 2008). Proposition 49 is thus a state-level attempt to create a substantial increase in access to academically oriented after-school programs for all youth – particularly economically disadvantaged youth.

Other examples of states that, as of 2008, had approved funding for after-school programming include Georgia, which made \$14 million available for grants to after-school programs (\$10 million from TANF funds and \$4 million from state revenues); Iowa, which approved after-school funds totaling \$3.5 million; Massachusetts, which appropriated \$2 million for after-school programs through the After School and Out of School Time grant program; Missouri, which approved \$1 million in spending for after-school programs aimed at math and science learning and healthy lifestyles; Minnesota, which allocated \$5.3 million for after-school programs to be dispersed over a period of two years; New Mexico, which invested \$2 million in after-school enrichment programs; and Washington, which approved \$3 million for after-school programming grants (Afterschool Alliance, 2008a).

City governments constitute a third source of public funding for after-school programs. New York City, which has “the largest municipally funded system of after-school programs in the nation,” is one noteworthy example (Institute for Education and Social Policy, 2008, p. 2). Local funding for New York City after-school programs increased nearly five fold, from roughly \$41 million in 1998 to nearly \$200 million in 2008, due in large part to the efforts of TASC – a New York City based advocacy organization that lobbies for

after-school funds at the local, state, and federal level and works to promote access to high quality after-school programs for all youth (Institute for Education and Social Policy, 2008). Local funds are available in a variety of other cities as well. In some cities, local governments have joined forces with other public and private agencies to provide funds for citywide after-school initiatives (e.g., Los Angeles’ LA’s BEST, Chicago’s After School Matters, Washington D.C.’s Children and Youth Investment Trust Corporation, and Baltimore’s Safe and Sound initiative).

Although more recent data are needed, a 1995 survey conducted by the National League of Cities found that nearly 50% of surveyed municipalities provide funds for before- or after-school programs (Halpern et al., 2000). We found no information on how this figure varies as a function of socioeconomic status at the community level, nor did we find data on differences in the amount of local funds dispersed to after-school programs as a function community-level socioeconomic status. To the extent that local government revenue depends on property taxes, however, it follows that municipalities with a large percentage of lower-income residents would have less money for after-school programs.

A final source of revenue for after-school programs comes from in-kind contributions. Examples of in-kind contributions include staff who work on a volunteer basis, free space for program activities provided by churches or community organizations, and donated learning materials. When participant fees and private and public funds fail to cover program costs, after-school programs – particularly those for lower-income youth – rely heavily on in-kind contributions (Halpern et al., 2000).

The funding landscape for after-school programs serving low-income youth is clearly more complex than the largely fee-based funding structure used by programs that serve higher income youth. Programs that serve economically disadvantaged youth must rely on funds from a wide variety of public and private

sources, which may limit disadvantaged youths' access to after-school programs in several ways. First, public and private funds are limited and demands for funds are great. Consequently, the supply of programs funded through private and public sources may not be sufficient to meet the needs of lower-income youth. Second, funds obtained through public and private grants are often time-limited. Applications for renewal – a labor intensive endeavor that diverts attention away from service delivery – may be denied either because of constraints stipulated by the original grant award or because of shifting funding priorities. Finally, constraints on the specific uses of public and private after-school funds (e.g., requirements that funds must be used only for programming) may prohibit programs from spending on components that would increase youths' access to existing after-school programs (e.g., transportation to and from programs). In light of inequities in the current funding landscape, findings presented in the next section – which point to low rates of participation in after-school programs among disadvantaged youth – are not surprising.

Participation Rates Across Socioeconomic and Race/Ethnic Groups

Extant studies provide surprisingly few national estimates of the percentage of American school-aged youth (K-12) who attend after-school programs. Estimates of participation rates come primarily from three sources. First, the National Survey of American Families (NSAF; N ≈ 40,000 6-17 year olds from over 30,000 families) found that roughly 10-20% of youth participated in after-school programs (as discussed below, participation rates varied by income; Wimer, Bouffard, Caronogan, Dearing, Simpkins et al., 2006). Second, the National Household Education Survey (NHES) of 2005, a nationally representative study of over 11,000 students, found that approximately 20% of kindergarteners through eighth graders attended after-school programs (Carver & Iruka, 2006). This figure varied as a function of age, however; 21-25% of kindergarten through fifth grade students participated in after-school programs, while only 14% of sixth through

eighth grade students participated in a program. Finally, estimates from another nationally representative household survey (N ≈ 18,181) conducted by the Afterschool Alliance – an after-school advocacy group – are considerably lower and suggest an even more precipitous decline in rates of participation with age. These analyses suggest that 13% of kindergarten to fifth graders, 6% of sixth to eighth graders, and 3% of ninth to twelfth graders participate in an after-school program (Afterschool Alliance, 2004).

There is some evidence that rates of participation in after-school programs also vary as a function of socioeconomic status, but, again, these findings come from only a small handful of studies. Findings from the NSAF suggest that while 20% of children and adolescents in the highest income quintile participate in after-school programs, only 13% of children and adolescents in the lowest income quintile participate (Wimer et al., 2006). Additionally, a national study of 20 high-quality after-school programs found that low-income elementary and middle school students were underrepresented among program participants (Vandell et al., 2005), and a study of elementary school children enrolled in the Child Development Project in Tennessee and Indiana found that children from families of higher socioeconomic status were more likely to participate in school-based after-school programs than were children from families of lower socioeconomic status (Laird, Pettit, Dodge, & Bates, 1998). On the other hand, findings from at least one study indicate that participation rates vary little as a function of socioeconomic status. Analyses of NHES data from 2005 did not reveal significant differences in participation rates as a function of income (Carver & Iruka, 2006).

Finally, two national studies suggest that after-school participation rates vary as a function of race/ethnicity. Analyses of NASF data suggest that African American children and adolescents are more likely to participate in after-school programs (26%) than white (13%) or Latino (12%) youth (Wimer et al., 2006). Analyses of NHES data, on the other hand, suggest that both African American *and* Latino youth (32%

and 23%, respectively) are more likely to participate in after-school programs than white youth (15%; Carver & Iruka, 2006).

Taken together, these findings suggest that rates of participation are lower among adolescents versus children, lower among low- versus high-income youth, and higher among African American versus white youth. Given, however, that these differences tend to be relatively small, and that the pool of studies is quite limited, the safer conclusion might be this: Participation rates are relatively low for all children and adolescents, including those from disadvantaged families. All of the above-cited studies indicate that the majority of children and adolescents do not participate in after-school programs.

Access to After-School Programs Across Sociodemographic Groups

Although rates of participation are similarly low across all sociodemographic groups, the reasons for low rates of participation among more versus less advantaged youth may be different; more affluent youth may opt out of after-school programs because they have access to many other enriching activities in their homes, schools, and communities, while less affluent youth may not participate in after-school programs because they have limited access to programs. This position is speculative, but the research reviewed below does support the assertion that there are many barriers to participation in after-school programs among low-income youth. We review research on three categories of these potential barriers: (a) poor availability, or a shortage in the supply of after-school programs; (b) logistical barriers, or individual- and family-level barriers related to cost, transportation, scheduling, or other obligations; and (c) preferences and attitudinal barriers, or a lack of interest in participating due either to negative attitudes about programs or preferences for other after-school activities.

Availability of Programs

Poor availability is the first factor that may limit

access to after-school programs. As mentioned above, the limited availability of public and private funds has the potential to constrain the supply of after-school programs for disadvantaged youth. Rigorous research on the availability of after-school programs is in short supply, however. Consequently, there is a serious ongoing debate about whether the current supply of after-school programs is sufficient to meet the demand, both among disadvantaged youth and youth in general. There are at least two different methods for estimating supply and demand, and these methods often yield conflicting results.

Studies that compare the number of school-aged children in a given region to the number of available slots in after-school programs often conclude that supply is insufficient to meet demand (e.g., Halpern, 1999; Pittman et al., 2003). For instance, a study of after-school programs (many of which served lower-income youth) conducted in the late 1990s in Boston, Chicago, and Seattle found that there were only enough full-time slots (i.e., slots for daily participation throughout the year) in existing after-school programs to cover between 9% and 35% of the cities' school-aged populations (Halpern, 1999). Based on these findings, the authors concluded that the supply of after-school programs in these regions failed to meet the demand.

Critics argue that the above-described method of estimating supply and demand makes far too many assumptions about the extent to which all school-aged youth need or demand after-school care (i.e., some may be involved in other extracurricular activities, or maybe supervised by their nonworking parents or relatives; Bodilly & Beckett, 2005). The estimates provided in the preceding paragraph assume that all 65-91% of nonparticipating youth in Boston, Chicago, and Seattle needed and would have made use of a slot in an after-school program if a sufficient number of slots were available. Findings from a recent phone survey of families in five economically distressed cities (Baltimore, Detroit, Oakland, Philadelphia, and Richmond) suggest that this is not a valid assumption (Weitzman, Mijanovich, Silver, & Brazill, 2008). Only

10-19% of the youth in this study were classified as infrequent or nonusers who might have made use of after-school programs and activities if they could have accessed them. These percentages reflect the fact that infrequent or nonparticipation in after-school programs often stems from youths' lack of interest in programs, as well as parents' desires to have their children at home after school (Weitzman et al., 2008).

Accordingly, the available research on program utilization suggests that rather than being in short supply, participant slots in existing after-school programs often go unfilled. Though updated statistics are badly needed, a nationwide study of after-school programs conducted in 1991 revealed that the average after-school program utilization rate (the number of participants divided by the number of program slots) was only 59% (Seppanen et al., 1993). Surprisingly, these utilization rates did not vary as a function of the income level of the population served (Seppanen et al., 1993), suggesting that programs for lower- and higher-income youth were similarly underutilized. Moreover, a more recent review of the after-school literature released by RAND found that only two after-school programs reported oversubscription (i.e., more demand than available slots): (a) programs created as part of the Extended School Initiative (which targets lower-income youth) and (b) a few of the elementary school programs that receive funds from the 21st CCLC initiative (Bodilly & Beckett, 2005). Based on these findings, some researchers conclude that the supply of after-school programs is more than sufficient to meet the demand, even among lower-income youth.

Logistical Barriers to Participation in Available Programs

The mere existence of a supply of after-school programs for disadvantaged youth does not necessarily mean that disadvantaged youth have equal access to after-school programs. Although, to our knowledge, no national studies have attempted to ascertain the most important reasons for economically disadvantaged youths' lack of participation in after-school programs, there are a variety of plausible logistical barriers that

may prevent participation in available programs. Among the most commonly cited potential barriers are cost, transportation, and conflicts with other responsibilities (e.g., employment, taking care of younger siblings).

For obvious reasons, cost may be a very salient barrier to participation among lower-income youth (Bodilly & Beckett, 2005; California Tomorrow, 2003). Participants are required to pay fees when revenue from public, private, and in-kind contributions fails to cover programming costs. In a survey of 273 after-school programs across the nation, investigators found that nearly 30% of after-school programs that serve primarily low-income youth charged more than nominal participation fees and did not use a sliding scale to determine fees (California Tomorrow, 2003). Non-nominal fees are likely to deter participation among lower-income youth, thereby limiting equal access despite the availability of programs in the community. The results of a national telephone survey conducted by Public Agenda suggest as much. Public Agenda investigators found that parents of lower-income and minority youth were less likely than parents of higher income and white youth to report easy access to *affordable* after-school activities (Duffett & Johnson, 2002).⁶ Thirty percent of lower- versus 65% of higher-income parents reported access to affordable after-school activities, and 39% of minority versus 65% of white parents reported access to affordable activities (Duffett & Johnson, 2002). Thus, statistics that report low utilization rates among lower-income youth may mask differences in utilization as a function of fee subsidization. While programs that charge prohibitive fees may have empty slots, there may be waiting lists for free or heavily subsidized programs (Halpern, 1999; Pittman et al., 2003).

Parents of lower-income and minority youth are also less likely than parents of higher-income and white youth to report easy access to conveniently located after-school programs (lower versus higher income – 45% versus 72%; minority versus white – 45% versus 73%; Duffett & Johnson, 2002). Sociodemographic disparities in access to nearby after-school programs

may be further exacerbated by disparities in access to transportation. Transportation difficulties are among the most commonly cited barriers to participation in after-school programs (Bhanpuri, 2005; Bodilly & Beckett, 2005; Grossman, Walker, & Raley, 2001; Halpern, 1999; Lauver, Little, & Weiss, 2004; Walker & Arbretton, 2004). The costs to after-school programs of providing transportation are often prohibitive, particularly for programs that serve low-income youth and have limited resources (Grossman et al., 2001). Additionally, youth from disadvantaged families may not have easy access to cars, and they may reside in high-poverty, high-crime neighborhoods where transportation on foot or by public transportation poses safety risks.

Not surprisingly, a national evaluation of the 21st CCLC program, which targets low-income youth, found that, among youth who did not participate in programs, 20% cited the inability to find a ride home as a reason for not attending (Dynarski et al., 2003). Additionally, 46% of nonparticipants said they would have participated if it had been easier to find a ride a home. Similarly, in a study of school-based after-school programs targeting lower-income youth in 10 U.S. cities, researchers found that 15% of parents indicated that their children participated infrequently because they often did not have a ride home from school (Grossman et al., 2002). Very comparable findings were reported by Weitzman and colleagues (2008); they found that among light users and nonusers of after-school programs and activities, 13-20% cited lack of transportation as the most important barrier to participation. Finally, an evaluation of programs serving low-income youth in San Francisco found that, among the 61% of participants who had missed a scheduled program activity at least once, 20% cited problems getting home as a reason (Walker & Arbretton, 2004).

Conflicting obligations and responsibilities also have the potential to act as a barrier to participation in after-school programs. The aforementioned evaluation of 21st CCLCs found that, among nonparticipants, nearly 50% cited chores around the house and 28%

cited the care of younger siblings as a reason for not participating in a program (Dynarski et al., 2003). Such conflicting obligations—particularly the care of younger siblings—may fall disproportionately on the shoulders of disadvantaged youth. Compared with youth from more affluent families, lower-income youth whose parents cannot afford childcare may be called on more often to provide sibling care during nonschool hours. As highlighted in a recent brief by the Harvard Family Research Project, “In some evaluations of welfare-to-work programs, the only group of adolescents who experienced gains in participation in formal after school activities were those *without* younger siblings” (Lauver et al., 2004, p. 3). The implication is that adolescents with employed, low-income parents were unable to participate in after-school activities because they were responsible for caring for younger siblings while their parents worked.

Evaluations of programs for older youth indicate that employment may also conflict with attendance at after-school programs (see Lauver et al., 2004, for summary). Like sibling care, employment may be a more salient barrier for lower-, versus higher-, income youth. Although youth from more affluent homes are actually more likely to be employed during high school than are youth from less affluent homes, youth from lower-SES homes (as indexed by parent education) who do work are likely to work longer hours than are youth from higher-SES homes (Lerman, 2000). Thus, relative to employed youth from more economically advantaged homes, less advantaged employed youth may have fewer free nonschool hours to participate in after-school programs.

Preferences and Attitudinal Barriers to Participation

Finally, rates of participation in after-school programs may be limited by personal preferences and attitudinal barriers. Relatively few studies have examined the extent to which youths' attitudes and preferences prevent or facilitate participation in after-school programs, but one relatively recent study found that students' desires to “relax and hang out with

friends” and boredom and disinterest were among the most common barriers to participation (Lauver et al., 2004). Similarly, studies of at least two after-school initiatives suggest that students’ negative attitudes toward school may deter youth from participating in school-based after-school programs (Grossman et al., 2001; Walker & Arbretton, 2004). These and other comparable reasons for nonparticipation may be particularly prevalent among older youth; Weitzman and colleagues (2008) found that while lack of interest was the main reason for light or nonparticipation in after-school programs and activities among 21% of 10-18 year olds, only 8% of the parents of 5-9 year olds cited children’s lack of interest as the primary deterrent to participation. Among younger, versus older, children, parent attitudes may be a more common reason for infrequent or nonparticipation. Weitzman and colleagues (2008) found that a parent’s preference to have his or her child at home after school was the main deterrent to participation for 27% of 5-9 year olds (versus 13% of 10-18 year olds).

To our knowledge, little research has examined whether youth or parental attitudes toward participation differ as a function of socioeconomic status or race/ethnicity. It is, however, reasonable to believe that negative attitudes toward academically enriching after-school programs are even more common among low-performing youth – a group composed of disproportionately large numbers of economically disadvantaged and minority youth. Additionally, findings from an aforementioned national phone survey indicate that, relative to higher income and white parents, a smaller percentage of lower income and minority parents believe that the after-school activities (including after-school programs) that are available to their children are of high quality (e.g., Duffett & Johnson, 2002). It is therefore conceivable that lower, versus higher, income parents may be more likely to prefer that their children stay home after school. It is also possible that safety concerns in low-income communities increase parents’ desires to keep their children at home after school. This assertion is speculative, however. More research is necessary before we can draw firm conclusions about

the implications of program quality and neighborhood safety for parents’ after-school care preferences.

Summary of Barriers to Participation

In summary, the extant research, albeit limited, suggests that a multitude of factors may prevent youth from participating in after-school programs. Although researchers are justifiably dubious about shortages in the supply of after-school programs, we have identified a number of other factors – non-nominal costs, lack of access to safe transportation, conflicting obligations, and negative attitudes – that play an equally important role in determining whether youth have access to, and are likely to participate in, the programs that exist in their communities. To our knowledge, researchers have not explicitly compared the degree to which these problems are more likely to act as barriers among lower-, versus higher-, income youth. For all of the very plausible reasons stated above, however, it seems reasonable to predict that these barriers are particularly salient deterrents to participation among economically disadvantaged youth. Unless steps are taken to minimize these barriers, it is likely that rates of participation in after-school programs will remain low among the very youth who are most at-risk for academic failure.

The Academic Benefits of After-School Programs

Thus far we have described the current after-school landscape and discussed potential sources of sociodemographic inequities in access to after-school programs. We have not, however, answered the central question that we posed at the beginning of this paper: Can after-school programs boost academic performance among disadvantaged youth? We recognize that after-school programs serve many other purposes, including providing adult supervision and exposing youth to socially and culturally enriching experiences. Yet, beginning in the 1990s and continuing today, program success has increasingly been measured in terms of academic outcomes, with little regard for improvements in other areas of development (Halpern, 2006). Policymakers are increasingly looking to after-school programs to provide academic support for low performing students, and funders increasingly require evidence of academic gains to justify continued funding (California Department of Education, 2007a; Kane, 2004). Thus, in this section, we examine the evidence linking participation in after-school programs to academic benefits. First, however, we discuss briefly three issues that have important implications for understanding the evidence: (a) the definition of academic benefits; (b) mechanisms that may explain the academic benefits of after-school participation; and (c) methodological limitations in the extant research.

Researchers define and measure academic benefits in myriad ways. One recent review of the literature grouped the academic outcomes that are often associated with after-school participation into four types, including academic performance (e.g., grades, test scores, and progression in school), academically related attitudes and beliefs (e.g., feelings about school, educational expectations, and academic self-perceptions), learning behaviors that demonstrate a positive approach or commitment to learning (e.g., effort and work habits), and attendance at school (e.g., absenteeism and tardiness; Roth, Malone, & Brooks-Gunn, in press). Still, many researchers and funders

view changes in standardized achievement test scores as the only reliable measure of program effectiveness because test scores easily and objectively quantify academic gains. Additionally, reliance on test scores as the solely acceptable measure of success fits with the current test-based accountability movement in education (Kane, 2004).

There are at least two problems with relying on test scores to measure the academic benefits of after-school programs, however. First, it is unclear how much of a gain is necessary to qualify as evidence of program success. Test scores change little after a full school year of classroom instruction, particularly as students progress in school. Scores on the Stanford reading and math achievement tests increase by only one-third and one-half of a standard deviation between fourth and fifth grade, respectively (Granger & Kane, 2004). Students spend much less time in after-school programs than in school (i.e., only a few hours per week versus roughly 30 hours per week), so we can only reasonably expect program participation to lead to small gains in test scores (Granger & Kane, 2004). Second, other academic outcomes have important implications for later success and may be more amenable to change than are test scores. Grades and high school graduation predict markers of successful transitions to adulthood, such as college graduation and employment (U.S. Department of Education, 2005), and academically relevant attitudes and behavior (e.g., attendance, motivation, engagement, classroom behavior) likely have ultimate, if not immediate, implications for academic performance. These outcomes may thus play an equally important part in facilitating youths' successful integration into the 21st-century workforce (see Larson, Wilson, & Mortimer, 2002, for discussion of preparation for adulthood in the 21st century).

This more nuanced understanding of academic benefits, which views test scores as one part of a broader constellation of important academic

outcomes, is evident in writings about the mechanisms that may explain how after-school programs promote learning. Generally speaking, after-school programs expose youth to supportive adults who encourage youth to attend and try hard in school, serve as positive role models, and provide direct academic support in the form of homework help or curriculum-based academic components. These supports are hypothesized to lead either directly or indirectly to improved academic performance, as measured by grades, test scores, or progression in school. When indirect paths are proposed, it is typically argued that program participation leads to improvements in other academic domains, such as attitudes and beliefs, learning behaviors, and attendance at school, which in turn produce improvements in academic performance (e.g., Huang, Gibbons, Kim, Lee, & Baker, 2000; Kane, 2004; Walker & Arbreton, 2004).

Recognizing that performance measures, academic attitudes and beliefs, learning behaviors, and school attendance are all important contributors to youths' educational success, our review casts a wide net and examines evaluation research on the associations between after-school program participation and all of these outcomes. Before reviewing this research, however, it is important to point out that not all evaluation research is created equal. Some evaluation studies use research designs that are more methodologically sound than others. The most frequently used and least rigorous approach, called the single group pre- and post-test research design, involves collecting data on program participants' academic outcomes at the beginning and end of a program. These data may show academic improvements over time, but they provide little information about the role of the after-school program in fostering improvements. Only when the gains of participants are compared with those of a similar group of students who did not attend the program can we know whether participants would have made similar gains without attending the program. Single group designs may serve other purposes, but they cannot answer questions about the academic benefits of participating in an after-school program.

Quasi-experimental studies provide a better test of program effectiveness. When using this method, investigators collect outcome data at the beginning and end of a program for two groups of students – those who attend the after-school program and those who do not. Participants are not randomly assigned to the after-school or nonparticipant groups, however. Consequently, this method does not eliminate the influence of self-selection bias. Self-selection biases occur when certain unaccounted for characteristics (e.g., attachment to school, parenting) encourage both participation in an after-school program and academic gains, thereby inflating the apparent effects of participation on academic outcomes. In other words, quasi-experimental research may reveal differences in outcomes between after-school participants versus nonparticipants that are attributable to many nonprogrammatic factors. A high degree of similarity between the two student groups at the beginning of the program is therefore critical to the usefulness of this design. Gains among program participants can only be attributed to the program when the two groups of students are similar in characteristics, attitudes, and behaviors that could also influence academic performance. In practice, it is difficult to quantify or eliminate the influence of self-selection bias in quasi-experimental research since important predictors of academic outcomes are likely to remain unmeasured.

Experimental designs, on the other hand, eliminate the influence of self-selection bias. In experimental studies, researchers randomly assign students to either attend the program (the treatment group) or not to attend (the control group), thus equalizing the two groups on both known and unknown predictors of academic outcomes. Experimental designs are the only designs that can yield definitive conclusions about the impacts of participation on academic outcomes,⁷ but they remain rare in after-school research for two primary reasons. First, the ability to assign an adequate number of youth to program and control groups randomly depends on an excess demand for the program. As noted previously, however, research suggests that after-school programs are

often underutilized, making it difficult to generate large enough samples for random assignment studies. Second, it is impossible to constrain the activities that control youth participate in during nonschool hours, and most evaluations of after-school programs do not collect information on the other activities in which study participants are engaged. This raises questions about what program “effects” really reflect. It is often unclear whether program effects reflect the fact that the program was “better” than staying home unsupervised or “better” than attending other after-school options in the community. This limitation is true of all research on after-school programs, however. Thus, experimental designs remain the gold standard in evaluation research.

Overview of the Link between After-School Participation and Academic Outcomes

Although single group pre- and post-test designs still dominate the after-school literature, a number of researchers have recently reviewed the growing body of methodologically sound (i.e., experimental and quasi-experimental) studies on the academic outcomes associated with after-school program participation. Narrative reviews of these studies, which compare and contrast findings across published studies, generally conclude that participation in after-school programs improves a variety of academic outcomes for youths, including academic performance, academically related attitudes and beliefs, learning behaviors that display a positive approach or commitment to learning, and attendance at school (e.g., Afterschool Alliance, 2003, 2006; Bodilly & Beckett, 2005; Little & Harris, 2003; Miller, 2003; Redd et al., 2002; Roth et al., in press; Scott-Little, Hamann, & Jurs, 2002).⁸ It is important to note that across the studies included in these reviews, findings indicate that after-school programs more often lead to improvements in attitudes and behaviors than in academic performance as measured by standardized tests.

Narrative reviews are often criticized for failing to provide a balanced picture of the benefits of after-

school programs, however. Researchers sometimes choose to highlight studies that show statistically significant gains⁹ in academic performance among program participants without considering the number of studies that do not find significant gains (i.e., null results). A more balanced inspection of the evaluation results typically shows that after-school programs have more null effects on outcomes than positive effects. For example, of the five experimental studies measuring grades included in Bodilly and Beckett’s (2005) review, only one found a statistically significant improvement for program participants. The other four studies found no significant difference in the grades of after-school participants and control group youth.

Meta-analytic techniques combat the weaknesses of narrative reviews by systematically pooling numerical results from all extant studies and calculating the average size of program effects on academic outcomes. The statistical significance of the average effect indicates whether, across programs, the scores of program participants differ from those of nonparticipants, and the size of the effect reflects the practical significance of the program effect. Meta-analytic reviews of methodologically sound studies typically do find statistically significant improvements in academic performance across studies of after-school programs. For instance, recent meta-analyses found that the average program effect on reading achievement (i.e., tests scores or grades) for at-risk students is .13 (Lauer, Akiba, Wilkerson, Apthorp, Snow, & Martin-Glenn, 2006), and that the average program effect on students’ combined math and reading test scores is .16 (Durlak & Weissberg, 2007). Durlak and Weissberg (2007) also reported effect sizes for other academic outcomes. They found a similarly sized effect on school bonding (.14). Program effects on school attendance, however, were not significant.

There are various ways to interpret these effect sizes. One convention designates that an effect of .20 is small, .50 is moderate, and .80 is large (Cohen, 1988). By these standards, after-school programs have a small impact on academic outcomes. Researchers have recently called

for moving away from this decontextualized approach to interpretation, however, in favor of an approach that considers whether the effect is meaningful given the type of intervention, target population, and outcome measure (see Hill, Bloom, Black, & Lipsey, 2008). Viewed through this lens, participation in after-school programs, on average, leads to meaningful improvements in academic outcomes. The sizes of the effects of after-school programs are on par with those of other remedial educational interventions, which range from .11 for year-long Title I programs to .24 for summer school (Lauer et al., 2006). After-school program effects are also meaningful when compared with normative expectations for changes on standardized tests from one year of school to the next. One study suggests that the sizes of the average effects of one year of elementary schooling on standardized achievement test scores (as indexed by the difference between fourth and fifth grade scores) are .36 for reading and .52 for math. Kane (2004) argues that, given the differences in the amount of time that youth spend in school versus after-school programs, a consequential effect from after-school programs could therefore range in size from .05 to .07. Another proposed benchmark, of particular interest for this paper, suggests interpreting effect sizes in relation to a policy-relevant performance gap, such as the achievement gap (Hill et al., 2008). When viewed against the gaps in reading and math scores between black versus white, Hispanic versus white, and students who are eligible versus ineligible for free/reduced-priced lunch on the fourth grade National Assessment of Educational Progress (NAEP; -.83, -.77, -.74 for reading and -.99, -.85, and -.85 for math, respectively), the academic gains attributed to participation in after-school programs can be considered small, but not inconsequential.

Taken together, the research seems to suggest that while the effects of successful after-school programs on academic outcomes may be small, they are meaningful nonetheless. It is, however, important to consider that not all after-school programs offer equal academic benefits for all youth. Although positive effects emerge, on average, across the studies included in meta-analytic reviews, the majority of studies included in each review did not find that program participants showed higher

academic performance than nonparticipants (Granger, 2008). As discussed in the following paragraphs, the academic benefits of participation in after-school programs may vary (a) across programs with different programmatic features, (b) as a function of amount of participation, and (c) as a function of youths' risks for academic failure.

Differences in Academic Gains as a Function of Programmatic Features

Careful consideration of the above reviews and the empirical studies on which they are based reveals that some programs are more successful at improving participants' academic functioning than others (Durlak & Weissberg, 2007; Lauer et al., 2006; Little & Harris, 2003; Redd et al., 2002). One might suspect that some of this unevenness is due to differences in the emphases of different programs. As noted earlier, differences in program emphasis at least partly result from a tension that exists between the goals that different program providers and funders hold for after-school programs: Some believe that programs should focus primarily on academic success while others believe that programs should focus more broadly on positive youth development. Based on extant theory and limited empirical research, researchers have identified eight program features that promote positive development: (1) physical and psychological safety; (2) appropriate structure; (3) supportive relationships; (4) opportunities to belong; (5) positive social norms; (6) youth input and leadership; (7) opportunities for skill building; and (8) integration of family, school, and community efforts (Eccles & Gootman, 2002).

Rather than suggesting that one type of program emphasis (academics versus positive youth development) is more beneficial than the other, extant research suggests that programs that include a strong academic component (beyond the ubiquitous homework), in combination with other development-enhancing components, yield positive results (Durlak & Weissberg, 2007; Lauer et al., 2006; Redd et al., 2002). In a recent meta-analysis, Durlak and Weissberg (2007) found

that programs using an evidence-based approach¹⁰ to promote the development of personal and/or social skills had positive effects on both academic performance (effect size for grades = .24, test scores = .31) and school bonding (effect size = .26). Although not all of these programs included an academic component, the investigators found that the inclusion of an academic component was the strongest predictor of achievement test gains and accounted for 34% of the variance in test scores (Durlak & Weissberg, 2007). A recent meta-analysis of program evaluations for academically at-risk students also found that programs with a combined academic and social focus had greater positive effects on math scores (.19) than did programs that primarily focused on academics (.07). Reading scores did not vary depending on program content, however (Lauer et al., 2006).

Program process features, which refer to program atmosphere rather than content, may also have important implications for academic outcomes. Positive program processes are manifested in supportive and empowering environments created through positive interpersonal relationships within the program. Research documents associations between these process features and both positive youth development outcomes (Roth & Brooks-Gunn, 2003) and academic success (Pierce, Hamm, & Vandell, 1999; Vandell et al., 2005). One narrative review of the after-school literature concludes that “it is not so much the type of program – the focus, strategies or location – as the environment that is created for youth that makes all the difference” (Miller, 2003, p. 69). Similarly, strong evidence exists to support the importance of a program’s emotional climate for youths’ academic success (Beckett, Hawken, & Jackowitz, 2001). Tools for measuring after-school program quality, though in the early stage of development (Granger, 2008), also recognize the importance of program processes. For example, in one review of existing quality assessment tools, all 10 of the included observational instruments looked for a variety of process features, including positive relationships between staff and youth, supportive program environments, engagement in activities, positive social norms, opportunities for skill-building,

clear routines, and appropriate structure (Yohalem & Wilson-Ahlstrom, 2009). Thus, while more research on the implications of program processes is clearly needed, the hypothesized importance of program processes is buttressed by the priorities of those working in the arena of quality assessment and improvement.

Differences in Academic Gains as a Function of Amount of Participation

Even when youth attend programs with similar programmatic features, their level of participation varies. Participation includes more than just attendance (Simpkins, Little, & Weiss, 2004; Weiss, Little, & Bouffard, 2005). Participation is a complicated, multidimensional construct that involves at least five different aspects: intensity (i.e., frequency of attendance during one program year), duration (i.e., years of attendance), total exposure (i.e., frequency of attendance over multiple years), breadth (i.e., involvement in different types of program activities), and engagement (i.e., effort and interest in program activities). Evidence from different after-school programs indicates substantial variability in all five aspects of participation across youth. On average, however, estimates from large national surveys, local initiatives, and individual program evaluations indicate that youth who do attend after-school programs spend only a small fraction of their after-school time in these programs (i.e., between 7 and 10 hours per week). Additionally, about half of participating students do not attend programs for more than one year and approximately two-thirds do not attend a wide selection of activities within programs (Roth et al., in press). Common sense would imply that participants need to attend programs for an adequate number of hours over a significant period of time, and must be actively involved while there, before one could reasonably expect the program to improve academic outcomes.

Surprisingly, the measures necessary to determine the extent of youths’ participation in after-school programs are often not collected (Fiester & Policy Studies Associates, 2004; Roth et al., in press). Most

program evaluations simply compare the academic outcomes of participants and nonparticipants and do not consider differences in outcomes as a function of participation levels. One reason for this is that self-selection issues loom large in research on the effects of variations in participation levels: Youth who attend after-school programs more often or for longer, or who are more involved once at the program, differ from both nonparticipants and from those who participate at lower levels in observable and unobservable ways (see Bodilly & Beckett, 2005). Researchers cannot manipulate youths' levels of participation through random assignment. Instead, they must rely on quasi-experimental research designs with statistical controls for pre-existing differences to reduce the impact of self-selection bias.

Perhaps as a consequence, meta-analytic techniques have not, to our knowledge, been applied to extant research on the influence of amount of participation. Moreover, the few methodologically sound studies that explore the implications of variations in participation yield inconsistent findings. Although there is some evidence to support the claim that students need to attend regularly over a period of months or years to make significant academic gains (Arbreton, 2004; Miller, 2003; Redd et al., 2002), null results are just as common as statistically significant results for most measures of academic success. In the following paragraphs, we provide a brief narrative review of the quasi-experimental studies that have examined relations between variations in participation levels and two academic outcome domains – academic performance (e.g., test scores, grades, graduation rates) and attendance at school (e.g., absenteeism and tardiness). Studies of participation breadth and engagement are scarce, and thus will not be discussed.

Studies that measure the effects of participation levels on academic performance indicate differences by age group and aspect of participation level. Among elementary-school-aged participants, the majority of studies find no association between elementary school students' grades or test scores and the frequency of

attendance during a single year (known as intensity) or the number of years of attendance (known as duration; Anderson-Butcher, Newsome, & Ferrari, 2003; Arbreton, Goldsmith, & Sheldon, 2005; Dynarski et al., 2003; James-Burdumy, Dynarski, Moore, Deke, Mansfield, & Pistorino, 2005; Leake & Gardner, 2006; Morrison, Storino, Robertson, Weissglass, & Dondero, 2000; NICHD Early Child Care Research Network, 2004; Pettit, Laird, Bates, & Dodge, 1997; Riggs & Greenberg, 2004; Vandell et al., 2005). When more frequent attendance occurs over multiple years (known as total exposure), however, findings from a limited number of studies suggest that more participation in after-school programs is associated with higher grades or test scores for elementary school students (Huang et al., 2000; Reisner, White, Russell, & Birmingham, 2004; Texas Education Agency, 2007).

A number of studies find that *adolescents* who attend after-school programs more often or for more years earn significantly higher grades compared with nonparticipants or participants with lower program attendance (Arbreton & McClanahan, 2002; Dynarski, James-Burdumy, Moore, Rosenberg, Deke, & Mansfield, 2004; Espino, Fabiano, & Pearson, 2004; Goerge, Cusick, Wasserman, & Gladden, 2007; Lodestar Management/Research, 2005; Rodriguez, Hirschl, Mead, & Groggin, 1999). Limited evidence also suggests that participation over a longer period of time has beneficial effects on adolescents' progression in school (Pearson, Vile, & Reisner, 2008) and graduation rates (Goerge et al., 2007; Huang, Kim, Marshall, & Pérez, 2005). Adolescents' test scores, however, typically do not vary based on the amount of participation (Dynarski et al., 2004; Dynarski et al., 2003; Espino et al., 2004; Leake & Gardner, 2006; Lodestar Management/Research, 2005; Texas Education Agency, 2007; University of Illinois Urbana-Champaign Center for Prevention Research and Development, 2004; Walker & Arbreton, 2004).

Findings on the association between participation level and attendance at school follow a pattern similar to that noted above for academic performance. That is, the majority of studies fail to show a significant relation

between the intensity or duration of elementary school students' participation in an after-school program and their regular school day attendance (Anderson-Butcher et al., 2003; Dynarski et al., 2004; James-Burdumy et al., 2005; Leake & Gardner, 2006; Lodestar Management/Research, 2005; Reisner et al., 2004). Among adolescents, greater intensity, but not duration, is typically associated with better attendance at school (Birmingham & White, 2005; Dynarski et al., 2004; Dynarski et al., 2003; Espino et al., 2004; Fabiano, Pearson, & Williams, 2005; Leake & Gardner, 2006; Walker & Arbretton, 2004). A few studies, however, show that total exposure (i.e., longer duration combined with greater intensity) is associated with fewer absences from school for both younger and older youth (Fabiano et al., 2005; Huang et al., 2000; University of Illinois Urbana-Champaign Center for Prevention Research and Development, 2004).

Clearly, the empirical evidence in favor of a positive link between participation levels and youths' academic outcomes is weak. This may be partly explained by the fact that many of the programs evaluated in the aforementioned studies did not include a targeted academic component. As mentioned earlier, the inclusion of a strong academic component may have important implications for youths' academic outcomes. It is also important to remember that where we do find positive associations between participation levels and academic outcomes, studies are often plagued by methodological problems. These problems (e.g., self-selection), while common to most evaluations, complicate efforts to understand the associations between different aspects of participation and youth outcomes. The weakness of the findings, combined with the methodological limitations in the extant literature, therefore necessitates caution in proclaiming the benefits of higher participation levels for academic improvements.

Differences in Academic Gains as a Function of Youths' Risks for Academic Failure

In a world of limited resources, many argue that funding for after-school programs should be directed to youth who are most in need of these programs,

and in particular, to youth who are at risk for school failure (a group that includes disproportionately large numbers of economically disadvantaged and ethnic minority youth). After-school programs may provide these youth with supports and enrichment that their parents are unable to provide and that they are unlikely to find elsewhere in the community. It is therefore reasonable to expect that academically at-risk youth will benefit more than less-at-risk youth from the opportunities for skill development and positive relationships afforded by participation in after-school programs. One researcher proclaimed that "a truism in the field might be that those who need the most, benefit the most" (Miller, 2003, p. 57). Reviews of the few studies that have explored differences in the academic benefits of after-school programs as a function of youth characteristics generally support this claim; research documents greater gains for youth entering programs at greater risk, whether risk is defined on the basis of prior achievement levels or family characteristics (e.g., income, race/ethnicity; Black, Doolittle, Zhu, Unterman, & Grossman, 2008; Bodilly & Beckett, 2005; Dynarski et al., 2004; Policy Studies Associates, 2002).

A small number of studies have also examined the possibility that students at greater academic risk benefit more from greater amounts of participation than do students at lower risk. First, one study of high school students found that frequent participation in an after-school program had a greater positive impact on school-day attendance among those in the second lowest attendance quartile (i.e., those who attended school 88-94% of the time the previous year) than among those in higher attendance quartiles (similar risk-based differences in the benefits of intensity were not observed for other academic outcomes, however; Birmingham & White, 2005). Second, a recent quasi-experimental evaluation found that (a) two years of participation in an after-school program led to greater academic gains among academically at-risk elementary school children (those with lower test scores) than among children who were not at risk (James-Burdumy et al., 2005), and (b) academic benefits among at-

risk children were only observed after two years of program participation (Dynarski et al., 2004). Finally, one additional study found that, although students who scored at or above grade level on math proficiency tests showed larger than expected gains in test scores after both one and two years of participation in an after-school program, students who scored below grade level only exhibited gains after two years of participation (Reisner et al., 2004).

Taken together, these findings suggest that youth at risk for academic failure, when compared with more academically able students, may (a) benefit more from greater involvement in after-school programs, and (b) require greater involvement in order to reap academic benefits. These conclusions are very tentative, however; empirical research on the extent to which risk moderates program effects on academic outcomes is both scant and riddled with the methodological problems discussed above. The results of the extant studies must therefore be replicated in future research using experimental methods.

Conclusions on the Benefits of Participation in After-School Programs

Despite all the qualifications that we have made, the literature that is currently available indicates that participation in after-school programs – particularly those that offer both enriching youth development activities and a strong academic component – *can* lead to small gains in academic outcomes. Though inconclusive, research also provides tentative evidence that youth who spend more time in after-school programs – particularly during adolescence – may derive greater academic benefits than youth who spend less time in programs. Perhaps most importantly, our review provides some preliminary evidence that academically at-risk youth may benefit more from participation in after-school programs than their higher achieving peers. We recognize that our ability to draw causal conclusions about the academic benefits of after-school programs is limited by the methodological shortcomings in the extant literature, but as a field, it seems prudent to move forward based

on our “best guesses” and take steps to ensure that youth, particularly economically disadvantaged youth, have access to the potentially beneficial activities offered through after-school programs.

Challenges in Increasing Access to After-School Programs

Despite the potential promise of after-school programs, our review suggests that access to programs remains limited among youth in sociodemographic groups at high risk for academic failure. Federal, state, and local governments have taken initial steps toward addressing this problem. We have highlighted several public initiatives designed to increase the *amount* of funding for after-school programs that serve disadvantaged youth (e.g., federal 21st CCLC initiative, California's Proposition 49). Nonetheless, advocates and policy researchers have identified a number of other funding-related obstacles that may interfere with efforts to provide disadvantaged youth with greater access to effective after-school programs. Research is needed to determine whether removing these obstacles would increase rates of participation in after-school programs among disadvantaged youth, but one can at least make plausible arguments that certain elements of current policies and funding practices make it difficult to provide broad access to strong after-school programs.

First, evidence indicates that many current funding mechanisms do not facilitate the development of sustainable programs. One review of state legislative initiatives revealed that most statutes only provide start-up support for out-of-school time programs and do not provide sufficient support for more long-term operating needs (Langford, 2001). This review also found that most state legislatures leave funding for youth services and programs to traditional appropriations processes, which subjects funding to political maneuvering and uncertain allocation (Langford, 2001). Some state legislatures have taken steps to address these concerns – California's Proposition 49 gives funding priority to existing grantees and requires voters to approve cuts in appropriations (Afterschool Alliance, 2008c) – but most state legislatures have not taken similar steps.

Reliance on federal funding often leads to similar sustainability problems. For instance, 21st CCLC grants

are time limited (though grants have been extended from three years to five years) and were originally conceived as seed grants that would ultimately be replaced by other sources of funding (The Finance Project, n.d.). Many grantees, however, struggle to provide programming, or to provide the same level of programming, once 21st CCLC grants expire (The Finance Project, n.d.). The Finance Project, an organization that researches and provides technical support to youth service providers on funding issues, argues that policy changes in six areas may lead to greater sustainability among 21st CCLC grantees. Areas targeted for change include (a) the length of grant periods (in focus groups, grantees argued that five years is a more reasonable grant period than three years), (b) the implementation of declining grant awards, which may allow grantees to slowly accumulate new sources of funding, (c) the large size of grants, which may be difficult for grantees to replace, (d) renewal of funds for existing grantees, (e) training/technical assistance on sustainability, and (f) permission for programs to charge nominal fees that would provide a small revenue stream without placing an undue financial burden on economically disadvantaged families (federal guidelines allow nominal fees, but many state education agencies prohibit it; The Finance Project, n.d.). It is not yet clear whether policy changes in these areas will lead to improved sustainability among 21st CCLC grantees, but they are worth investigating.

Second, we cannot increase access to after-school programs among disadvantaged youth unless service providers can navigate the complex array of potential funding sources and accountability requirements. Funding for a single after-school program may come from a variety of unrelated philanthropic and government programs with disparate goals (McLaughlin, 2000; Proscio & Whiting, 2004). Certainly there are many valid reasons for creating funding streams aimed at promoting very specific goals in very specific populations (such as ensuring that funding is used to promote educational success among low-

income youth, for example), but efforts to combine funds from these varied sources may create time-consuming administrative challenges for program staff, detract from time and resources that could be spent on the provision of direct services, and make it difficult to provide programming that revolves around a coherent set of goals. Though research has not, to our knowledge, addressed this question, one might reasonably speculate that the administrative tasks related to fundraising in programs that serve disadvantaged youth are more burdensome than those faced by staff in the largely fee-based programs that serve higher income youth.

Local after-school intermediary organizations constitute one response to this problem. These intermediaries centralize fundraising efforts, channel funds to local after-school programs, and facilitate the development of coherent programming. Such organizations make it possible to, “blend dozens of funding sources into a simpler stream, so that individual schools and nonprofit groups can use the money in a consistent way, without having to relate separately to every government program and private donor” (Proscio & Whiting, 2004, p 14.). LA’s BEST,¹¹ which supports programs for elementary school aged children in over 160 schools in the city of Los Angeles, is one longstanding example of such a local intermediary. LA’s BEST programs are located in economically disadvantaged communities (Huang et al., 2000) and strive to provide the community’s youth with high-quality after-school programs. The successes of LA’s BEST programs suggest that local intermediaries have the potential to boost after-school access among disadvantaged youth. Research examining the impact of such intermediate agencies on access is, however, needed in order verify this claim.

Finally, narrow funding priorities may make it difficult to provide disadvantaged youth with access to *high quality* after-school programs. The aforementioned review of state legislative initiatives found that state policymakers are often primarily concerned with creating youth services and programs, and are less

attentive to ensuring program quality (Langford, 2001). A brief from the Forum for Youth Investment similarly suggests that funding agencies often focus on the provision of direct services and do not direct sufficient funds toward staff training (Pittman et al., 2003). These funds may increase the supply of after-school programs, but stipulations regarding the use of funds may adversely affect the quality of after-school programs, particularly for disadvantaged youth who attend programs that depend heavily on grant funding.

Academic Implications of Increasing Access to After-School Programs Among Economically Disadvantaged Youth

Evidence reviewed thus far suggests that participation in after-school programs may improve students' academic performance. Although policy research is necessary to see whether we can measurably increase access to after-school programs among economically disadvantaged youth by removing the obstacles described above, it seems possible, at least in theory, to do so. Thus, in this section we turn to the question of whether expanding access to after-school programs could narrow the achievement gaps that currently exist across sociodemographic groups. As discussed below, we find that the likely impact of expanding after-school access is small.

We conducted some rough, "back-of-the-envelope" computations to show how increasing after-school participation rates among economically disadvantaged youth might reduce gaps in achievement test scores between white and minority (black and Hispanic) students.¹² These calculations relied on effect-size estimates from a recent meta-analysis, which suggests that participation in an "average" after-school program may improve reading achievement by .07 of a standard deviation and math achievement by .16 of a standard deviation (Lauer et al., 2006). Existing after-school participation rates and race/ethnic gaps in achievement test scores, detailed in Table 1, were calculated using

Table 1. The Effects of Increasing After-School Participation on Gaps in Test Scores

Scenario	Decrease in Gap on Reading Test				Decrease in Gap on Math Test			
	Black-White		Hispanic-White		Black-White		Hispanic-White	
	SD	% of SD	SD	% of SD	SD	% of SD	SD	% of SD
1. All youth below poverty line participate	.01	2%	.02	2%	.03	4%	.04	5%
2. All youth below 200% of poverty line participate	.03	4%	.03	5%	.06	7%	.08	12%

Sources and notes: SD=standard deviation. All estimates were calculated using data weighted to national averages drawn from the 2001 Panel Study of Income Dynamics Child Development Supplement (PSID-CDS). The black-white gap in scores on a standardized reading test was 12.2 points (.76 of a SD) and 13.9 points (.83 of a SD) on a standardized math test. The Hispanic-white gap was 10.5 points (.66 of a SD) for reading and 11.1 points (.66 of a SD) for math. National rates of after-school program participation by race and ethnicity are as follows: white, 8%; black, 10%; Hispanic, 7%. For youth below 100% of poverty line the corresponding estimates are: white, 1%, black 9%, Hispanic, 9%. For youth below 200% of the poverty line the corresponding estimates are: white, 4%; black, 8%; Hispanic, 6%. Prevalence rates for youth living below 100% and 200% of the poverty line were derived from PSID-CDS as well. Prevalence rates for school-aged youth living below 100% of the poverty line: white, 6%; black, 28%; Hispanic, 31%. Prevalence rates for school-aged youth living below 200% of the poverty line: white, 18%; black, 60%, Hispanic, 71%.

data from the nationally representative Panel Study of Income Dynamics 2001 Child Development Supplement (<http://psidonline.isr.umich.edu/CDS/>). Ideally we would have also explored decreases in the achievement gap as measured by different indicators of academic success, such as graduation rates. The necessary data for such computations are not available, however.

We first examined the impact of increasing rates of after-school participation to 100% among youth living below the poverty level – youth who are also disproportionately black and Hispanic (see Table 1, scenario 1). We recognize that increasing rates of participation to 100% is not a realistic goal; full participation would entail extremely large increases in participation given that, among youth below the poverty line, only 1% of white students, 9% of black students, and 9% of Hispanic students participate in after-school programs. Moreover, we acknowledge that our estimation procedures make unfounded assumptions about the extent to which youth in different economic brackets, race/ethnic groups, or age groups are likely to derive similar benefits from after-school programs. Yet, even this very flawed and liberal approach clearly demonstrates that a massive expansion in participation in after-school programs would likely result only in small reductions in the achievement gap. Even if it were possible, or desirable, for all school-aged children living below the poverty line to attend “average” after-school programs, our computations indicate that this would decrease the black-white achievement gap by only 2% in reading and 4% in math. Similarly, it would decrease the Hispanic-white gap by 2% in reading and 5% in math (see Table 1, scenario 1). Increasing rates of after-school participation to 100% among youth who live below 200% of the poverty level would have somewhat greater, but still modest implications for narrowing achievement gaps (see Table 1, scenario 2); the black-white achievement gap would be reduced by 4% in reading and 7% in math, and the Hispanic-white gap would be reduced by 5% in reading and 12% in math.

These findings highlight an essential point: In order to make real progress in the struggle for educational

equity, we can and should strive to provide disadvantaged youth with greater access to high quality after-school programs, but we must not expect this to eliminate existing sociodemographic gaps in standardized achievement test scores. Our review suggests that after-school programs may have positive and meaningful effects on youths’ academic outcomes, but after-school programs are best viewed as part of a multifaceted approach toward closing the achievement gap.

Recommendations for Research and Policy

Our review indicates that the provision of greater access to high quality after-school programs among disadvantaged, minority youth could play at least a small part in a multifaceted effort to reduce sociodemographic disparities in academic performance. There are, however, a number of unanswered research questions related to after-school participation and programming that have important implications for our ability to increase rates of participation and improve academic outcomes among disadvantaged and minority youth. These questions are outlined below. Additionally, policies on after-school funding, as they currently stand, may impede efforts to increase disadvantaged youths' access to high-quality after-school programs. Thus, we also present policy recommendations and recommendations for policy research that are aimed at both identifying the most effective means of removing barriers to after-school programs, and at increasing rates of participation.

Research Recommendations

1. More Research on the Root Causes of Low Participation Rates among Disadvantaged Youth

Findings reviewed above indicate that rates of participation in after-school programs among economically disadvantaged youth are low (Laird et al., 1998; Wimer et al., 2006). Reliable data on the roots of low participation rates are much harder to come by. It is unclear whether low rates of participation among disadvantaged youth reflect a poor supply of after-school programs in disadvantaged communities, or whether logistical and attitudinal barriers prevent disadvantaged youth from utilizing the programs that exist in their communities. Most who make the argument that low participation rates reflect supply problems cite a 1989 Chicago study that compared one higher- and one lower-income neighborhood and found more youth activities in the higher-income neighborhood (71 activities per 1,000 youth in higher-income neighborhoods versus 23 activities per 1,000 youth in lower-income youth; Pittman et al., 2003).

Though intriguing, the results of a study of two neighborhoods in a single city cannot be considered generalizable. Additionally, findings from a recent phone survey of families in five economically distressed U.S. cities found that parent and child preferences sometimes played at least as important a role as did supply problems in predicting infrequent or non-use of after-school programs (Weitzman et al., 2008). Thus, it is not clear that the supply of programs for disadvantaged youth is insufficient to meet demand, nor is it clear that supply problems constitute the biggest barrier to after-school participation among low-income youth. The last comprehensive, nationwide study of after-school programs that addressed program supply was conducted in 1991 (Seppanen et al., 1993). A nationwide follow-up study is needed that explicitly addresses questions about both program supply in low-income communities and barriers to participation in existing programs. These data are necessary in order to determine the most effective way to improve access to after-school programs among disadvantaged youth – whether by allocating funds to increase program supply, or by allocating funds to remove other barriers to participation in existing programs.

2. More Research on Differences in Program Quality for More versus Less Advantaged Youth

Researchers and youth advocates frequently speculate that programs for disadvantaged youth are of lower quality than programs for more affluent youth. Evidence for this position comes largely from survey research, which indicates that, relative to higher income and white parents, a smaller percentage of lower income and minority parents believe that the after-school activities (including after-school programs) that are available to their children are of high quality (e.g., Duffett & Johnson, 2002). Although the perceptions of parents are important and provide some insight into the reasons for low participation rates among disadvantaged youth, more systematic and objective research is needed

to verify and expand on this finding. Studies that employ trained raters to assess programs on a well-defined and theoretically coherent set of evaluation criteria are necessary in order to determine whether programs for disadvantaged youth are truly of inferior quality, and if so, on what specific dimensions of quality. This kind of information is essential for efforts to improve the quality of programs for disadvantaged youth.

3. More Experimental Research on the Academic Implications of “Evidence-Based” After-School Programs for Disadvantaged Youth

Our review of the literature suggests that programs that offer a strong academic component – beyond homework help – are associated with the greatest academic gains (Durlak & Weissberg, 2007; Lauer et al., 2006; Redd et al., 2002). Based on this evidence, after-school initiatives for disadvantaged, low-achieving youth have begun to adopt program models that include a strong academic focus. One example of such an initiative, the Community Organizing Resources to Advance Learning (CORAL) initiative, provides programs that serve lower-income, low-achieving elementary school students in five California cities (Arbreton et al., 2005). CORAL programs, which originally provided only enrichment activities and homework help, recently added a literacy component that is offered to groups of 12-20 children for roughly five hours per week (three to four days a week, 60-90 minutes per day; Arbreton et al., 2005; Arbreton, Sheldon, Bradshaw, Goldsmith, Jucovy, & Pepper, 2008). An evaluation study conducted after the second year of literacy programming found that children did indeed demonstrate reading gains after programming was implemented, and that the reading gains demonstrated by English language learners and children far behind in reading (i.e., children reading two or more years below grade level) were just as great as the gains demonstrated by higher performing CORAL participants (Arbreton et al., 2008). The study also found that the odds of a positive outcome on California’s standardized reading test (i.e., the odds of moving up to the “basic” level,

or remaining at or moving up from “basic”) were greater for CORAL children when program leaders used “stronger classroom practices in combination with consistent and higher-quality implementation of the literacy strategies” (Arbreton et al., 2008, p. v). These findings suggest that the inclusion and quality of a strong academic component may have important implications for children’s academic outcomes.

Importantly, however, the evaluation of CORAL did not use an experimental design. That is, the gains of CORAL participants were not compared with the gains of a nonparticipating control group. Thus, it is unclear whether similar improvements in reading performance would have occurred in the absence of CORAL programming. The fact that scores on reading tests were correlated with programming quality suggests that programming did have an impact on reading, but we cannot draw definitive conclusions without data from an experimental study. Ideally, such a study would include not just a nonparticipant control group, but also participant groups that received different kinds of programming, literacy and otherwise. This would allow not just for conclusions about whether program participation matters, but would also allow for conclusions about whether participation in one type of program is more beneficial than participation in another type of program. The costs associated with these kinds of studies are enormous, but they are the best way to facilitate more conclusive determinations about whether after-school programming confers academic benefits, and about what kind of programming offers the greatest benefits.

4. Research on Methods of Improving the Quality of After-School Programs that Serve Disadvantaged Youth

Evidence presented above suggests both that the quality of after-school programming for disadvantaged youth may be inferior to the quality of programming available to more affluent youth (though more research is needed), and that the quality of programming has implications for youths’ academic

gains. Consequently, it is important that we learn more about the processes through which after-school programming can be improved. The above referenced study of the CORAL program found that one year after implementation, only 36% of the literacy groups demonstrated moderate consistency and quality with respect to the implementation of literacy strategies (Arbreton et al., 2008). By the end of the second year, however, 88% of observed groups had achieved a moderate level of quality. Investigators suggest that providing program administrators with data on the links between program quality and youth outcomes at the end of year one led to improvements in program quality between years one and two (Arbreton et al., 2008). They point out that, by year two, all cities involved in the evaluation had invested in factors that had been linked to better quality in the year one evaluation. In particular, cities more clearly defined and strengthened the role of the literacy director, who was responsible for providing site staff training and monitoring, and for providing coaching and support to site administrators (Arbreton et al., 2008).

These findings suggest that providing ongoing feedback to practitioners about the quality of their practices, and about the implications of quality, may lead to improvements in the quality of programming. This is a rather vague conclusion, however, and it does not offer much in the way of specific guidelines for improving program quality (e.g., we do not know anything about how literacy directors worked with site staff to improve performance). This is not surprising given that the CORAL evaluation, like most evaluations, was aimed more at documenting improvements in youth outcomes and staff practices than at understanding the process by which improvements in staff practices occurred. Thus, in much the same way that we need experimental research to determine which program components are most strongly linked to children's academic outcomes, we need research – ideally experimental research – to identify the most effective methods of improving program quality.

5. More Research on Differences in the Benefits of Participation across Socioeconomic Strata

Though limited in size, the extant literature generally supports the notion that disadvantaged, low-achieving students derive greater academic benefits from after-school programs than their more advantaged, higher-achieving peers (Bodilly & Beckett, 2005; Dynarski et al., 2004; Policy Studies Associates, 2002). This conclusion is based on a small number of quasi-experimental studies, however. More rigorously designed, controlled experiments are necessary to replicate these findings. Moreover, we found only a few studies that have examined the extent to which program dosage has differential benefits for youth from different sociodemographic groups and youth at different levels of academic risk (Birmingham & White, 2005; Reisner et al., 2004). This is a question that has important implications for educational equity. We must know how much participation is necessary to elicit academic gains before we can provide the kind of access to after-school programs that is necessary to boost academic performance among disadvantaged, low-achieving youth.

Recommendations for Policy and Policy Research

1. Align Funding Priorities with Measures that Will Truly Improve Access to Programs

This review highlights several laudable public initiatives to increase the amount of funding for after-school programs that serve disadvantaged and academically at-risk youth (e.g., federal 21st CCLC program, California's Proposition 49). While an adequate amount of funding – whether from public or private sources – is necessary to ensure an adequate supply of accessible, high-quality programs for disadvantaged youth, the simple provision of funds may not be sufficient to meet this goal. It is also critically important that funds be directed toward activities that will truly increase access to after-school programs.

Directing more funds toward program creation may not (or may) be the answer. As previously mentioned,

disadvantaged youth are confronted with a multitude of logistical barriers that may deter participation in the after-school programs that exist in their communities. Transportation to and from programs, for instance, is often a barrier to participation for lower-income youth whose families may not have cars or convenient access to public transportation (Lauver et al., 2004). Funding agencies, however, often do not cover transportation costs, both because these agencies are focused on the provision of direct programming (Pittman et al., 2003) and because transportation is enormously expensive. To the extent that research determines that the supply of after-school programs is sufficient to meet demand, and that limited access to transportation is a barrier to participation in existing programs, perhaps some of the public funds directed at boosting the supply of after-school programs should be reallocated toward repositioning local public transportation systems to better accommodate the needs of low-income families during the after-school hours. This may or may not be a practical solution. Policy analysis and research is needed in order to determine whether such a strategy is feasible or potentially helpful, but it is an example of the kind of creative thinking that may be necessary in order to ensure that the available funds are being used in a way that will actually improve disadvantaged youths' access to after-school programs.

2. Align Funding Priorities with Measures that Will Truly Improve Program Quality

Well-intentioned efforts to increase the supply of programs, and to ensure that funds are primarily directed toward programming, often come at the expense of program quality. As mentioned above, one review of state legislative initiatives identified an emphasis on program creation over program quality (Langford, 2001), and a brief from the Forum for Youth Investment similarly suggests that funding agencies often do not direct sufficient funds toward staff training (Pittman et al., 2003). While funding for direct programming should clearly remain the highest priority, it is also important that sufficient funds be made available for staff training and program evaluation. Alternatively, funding agencies might consider relaxing some of the administrative requirements that they

impose on grantees in exchange for hours spent working on program assessment and improvement activities, thereby effectively reallocating some funds toward quality improvement activities. Research is needed to determine which of these two approaches has the greatest impact on program quality.

3. Ensure that Public Funding Mechanisms Facilitate Program Sustainability

Evidence reviewed above indicates that current funding mechanisms may not facilitate the development of sustainable programs. Initiatives at the federal and state level often provide only time-limited support for after-school programs (Langford, 2001; The Finance Project, n.d.). Reviewed evidence also indicates that governing bodies frequently leave funding for youth services and programs to traditional appropriations processes rather than creating protected sources of funding (Langford, 2001). Although some legislative bodies have taken steps to address these concerns (e.g., California's Proposition 49 gives funding priority to existing grantees and requires voters to approve cuts in appropriations), many have not. We urge policymakers and analysts to investigate the potential benefits of legislative action that would (a) create protected sources of funding for after-school programs (perhaps with provisions for voters to periodically approve increases or cuts in spending¹³), (b) allow for renewal of public funds for existing grantees based on meeting specified performance standards, and (c) provide resources for technical assistance on sustainability. We do not necessarily recommend the adoption of any one of these strategies, but we do recommend that policy researchers examine the potential impact of each of them.

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NOTES

1. We do not exclude after-school programs that focus exclusively on academics, so long as these programs do not provide one and only one form of academic assistance. Thus, we rule out only those programs that provide narrowly defined services such as SAT preparation, homework help, single subject tutoring services, and the like.
2. Programs that meet these criteria are often also referred to as “out-of-school-time” programs. We use the term “after-school” programs to describe these programs, even though some programs provide services in the mornings and/or weekends. We have chosen to use the term, after-school, because it is the term that is most commonly used to refer to the kind of programming we have described. Additionally, most of well-known programs provide the majority of their services during the after-school hours.
3. “A slot is [defined as] the ability to serve one more youth every hour that a program is open or to have an average daily attendance that is one child larger” (Grossman et al., 2009). A program may have fewer slots than enrollees, because not all enrollees attend on a daily basis. Thus, the annual cost per enrollee would be lower than the annual estimated cost per slot.
4. These costs are estimated in “average urban dollars,” which can be converted to city-specific dollar estimates using the ACCRA cost of living index (Grossman et al., 2009).
5. In all but one instance (the percentage of the total pool covered by parent fees), the lower estimate reflects the percentage for elementary/middle school programs and the upper estimate reflects the percentage for teen programs. The reverse is true for the percentage of the total pool covered by parent fees.
6. We use the term “activities” here rather than “programs” because this survey inquired both about after-school programs and other extracurricular activities; investigators did not differentiate between programs and activities.
7. The term “impact” is conventionally reserved for describing findings from experimental studies. Nonexperimental studies can only determine if a relation or association exists between participation and academic success. Program advocates frequently disregard this convention, thereby lending undeserved authority to nonexperimental findings.
8. Two of the seven cited narrative reviews (i.e., Afterschool Alliance, 2003, 2006; Miller, 2003) focus largely on quasi-experimental and experimental research, but do include some studies that employ the single group pre- and post-test design.
9. A statistically significant gain signifies that improvements in program participants’ scores are larger than improvements observed for nonparticipants, and that this difference is not due to chance.
10. Evidence-based programs refer to those that used a “sequenced set of activities” to help youth achieve skill objectives and provided “active forms of learning” new skills (Durlak & Weissberg, 2007, p. 7).
11. LA’s BEST, which began in 1988, is one of the oldest local after-school intermediaries in the country (Proscio & Whiting, 2004). LA’s BEST is a nonprofit organization based on a partnership between the City of Los Angeles, the Mayor’s Office, and the Los Angeles Unified School District, and it draws funding from a variety of federal, state, local, and private sources. These funds are channeled to after-school programs serving roughly 26,000 youth in 168 schools. LA’s BEST serves only elementary schools, and only provides programs in schools where more than 50% of students receive free or reduced lunches. Reflecting a commitment to provide programs to students most in need, eligible schools must also be, “located in an area of economic need, be vulnerable to crime and gang activity, and demonstrate low student test scores” (LA’s BEST, 2007). A review of LA’s BEST vision, mission, and statement of values also finds that their goals are consistent with a number of the criteria for quality endorsed by the National Research Council, including: safety; appropriate structure (e.g., supervision); supportive relationships; opportunities to belong; youth input and leadership; opportunities for skill building; and integration of family, school, and community efforts (Eccles & Gootman, 2002).
12. These estimates are modeled after those conducted by Magnuson and Waldfogel (2005) to demonstrate

the effects of increased preschool enrollment on racial and ethnic gaps in school readiness. Those who wish to obtain detailed procedures for computing these estimates should contact the first author.

13. Voters might be given the opportunity to participate in funding decisions through the approval of cuts in appropriations (as in California's Proposition 49), or after-school funds might be supported by long-term tax levies that could be periodically renewed (e.g., every ten years) or not renewed by voters.

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