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# The Value of Out-of-School Time Programs

## Key Conclusions

- OST programs provide measurable benefits to youth and families on outcomes directly related to program content.
- Academic OST programs can demonstrably improve academic outcomes and do not necessarily reduce program attendance at the elementary level.
- Program quality and intentionality influence outcomes.
- Youth need to attend regularly to measurably benefit from programming.

Youth (grades kindergarten through 12) across the United States participate in out-of-school time (OST) programs in group settings after school and during the summer. OST programs can be multipurpose (e.g., after-school clubs, YMCA, Boys & Girls Club), academically oriented, or related to specialty interests (e.g., sports clubs, theater programs). These programs are typically funded through a variety of mechanisms, including both public support (e.g., federal, state, and local grants) and private support (e.g., tuition, donations). Some OST programs depend on multiple funding streams, typically a mixture of tuition paid by parents and grants. Programs that serve low-income youth rely on public funding to support operations, leading policymakers to legitimately question whether these programs are a sound investment of public resources. Advocates and critics alike can find evidence that supports or refutes the effectiveness of OST programs. However, when effectiveness is considered,



## Recommendations

- When making funding decisions, federal and state policymakers should consider all benefits of programs.
- Policymakers, private funders, and intermediaries should incentivize and support out-of-school time providers' efforts to develop intentional, high-quality programs.
- Policymakers, private funders, and researchers should better catalog and assess the value and quality of experiences offered in OST programs.
- Funders should expect and researchers should measure outcomes that align with program content.
- Programs should work to maximize attendance of each individual student.

programs are often grouped together without regard for differences among program goals (e.g., improve academic performance, promote positive social skills, or decrease substance use), content, or the measurable outcomes programming might produce.

Recently, OST funding at the federal level has come under scrutiny. The President's 2018 budget, while attempting to reduce the federal deficit, has proposed to eliminate the 21st Century Community Learning Centers (CCLC) grant, which is one of the largest funding sources that can be used for OST programs (among other eligible activities). In addition, Child Care and Development Block Grants—the other major federal funding source for OSTs—would be held at fiscal 2016 spending levels. The result would be a dramatic reduction in federal funding that could be used for OST programs. Proponents of the proposed cut to 21st CCLC funding cite program ineffectiveness in increasing academic performance. However, this position

is largely based on one evaluation and does not take into consideration program elements or other measures of effectiveness unrelated to academic achievement. To better understand the value and effectiveness of OST programs, we examine programs through the lenses of content, dosage (the hours of content provided), and outcomes measured, focusing on rigorous (i.e., experimental or quasi-experimental) large-scale evaluations and meta-analyses. Our overall conclusion is that OST programs are generally effective at producing the primary outcomes that would be expected based on their content and design. However, the primary benefits of OST programs are often understudied or underreported. Based on our review, we consider these programs worthy of continued public investment. We recommend that, when making funding decisions, federal, state, and local governments and private foundations consider all the benefits that programs provide to youth and families and emphasize program quality. We also encourage funders and researchers to measure outcomes aligned with program content.

We start with a brief overview of the rationale for publicly funding OST programs. We then outline a model linking different categories of OST programs to likely outcomes before describing what we know about OST effectiveness through the lenses of content and dosage. We conclude with implications and recommendations for policymakers, funders, OST program leaders, and researchers.

## Why Invest Public Funds in OST?

Funding for OST programs comes from families, foundations, corporations, and nonprofits, as well as from federal,

state, and local grants. Overall, OST programs are primarily funded through tuition and fees paid by families. However, public funding typically supports OST programs that provide services to youth from low-income families. Public sources also provide the majority of funding for district or school-provided programs for low-achieving students. This being the case, programs serving a substantial percentage of youth from low-income families are far more likely to receive federal, state, and local grants than programs serving youth from more affluent families.<sup>1</sup> For instance, in a comprehensive review of one community's OST funding portfolio, federal and state funding streams provided 78 percent of funds for programs serving low-income youth. The remaining 21 percent came from the local United Way, philanthropy, and corporations.<sup>2</sup> Even with public investment, there is unmet demand for high-quality programs. A survey of parents estimates that 19.4 million youth not currently in an after-school program would be enrolled in one if it were available to them.<sup>3</sup>

The public's support for public investment in OST programs is consistently high. Most recently, a 2017 opinion poll conducted by Quinnipiac University found 83 percent of those surveyed opposed cutting public funding for these programs.<sup>4</sup> This support has been fueled by three key factors (Figure 1). First, due to working family members, youth may be largely unsupervised after school, which increases their opportunities to engage in risky behaviors, such as drug use and unsafe sexual activity, and to become victims or perpetrators of violence.<sup>5</sup> Arguably, youth and community safety benefit by ensuring that youth have access to enriching activities, safe places, and caring adults when out of school.

FIGURE 1

Public support for OST programs has been fueled by three key factors.

1. After school, unsupervised kids may engage in risky behaviors.
2. Youth access to enrichment activities is highly dependent on family income.
3. Low-income students trail substantially behind more-affluent peers, in terms of academic achievement.



OST programs provide cumulative opportunities to a child.



Second, youth access to enrichment activities (e.g., arts, sports, music, theater, or other types of activities not necessarily related to increasing academic performance) is highly dependent upon family income. The highest-income families spend almost seven times more on enrichment activities for their children,<sup>6</sup> and this spending gap creates an opportunity gap. For instance, approximately 59 percent of school-aged children from low-income families participate in sports, compared with 84 percent of children from wealthier families—those with annual incomes of \$75,000 or more.<sup>7</sup> This opportunity gap exists for private lessons and participation in specialized clubs as well. We should not just worry about the gap in terms of access; we should also be concerned about outcomes. Enrichment activities help build human and cultural capital and develop and define children’s interests and skills. As noted in the *Foundations of Young Adult Success* framework, high-quality interactions or “developmental experiences” with peers and adults allow youth to foster skills and develop self-management strategies, including self-regulation.<sup>8</sup> By participating in activities otherwise not readily available to them, low-income youth have access to new and enriching experiences that may provide lasting developmental benefits.

Third, on average, low-income students trail substantially behind their more-affluent peers in terms of academic achievement on state and national assessments. The achievement gap translates into a later attainment gap—only 70 percent of students from low-income families graduate from high school, compared with 85 percent of their more-affluent peers, and only 10 percent of individuals from lowest-income quartile families have a bachelor’s

degree by age 25, compared with 77 percent of individuals from families in the highest income quartile.<sup>9</sup> The unemployment rate among individuals without a high school diploma is 50 percent higher than among high school graduates and 100 percent higher than among college graduates—and those that are employed have far lower earnings.<sup>10</sup> The failure to reduce achievement gaps limits the economic mobility of children born into poverty. Additional time on academic tasks is one way to help struggling students master content.<sup>11</sup> Notably, one of the largest federal funding sources for OST programs—the 21st CCLC, which was included in the Every Student Succeeds Act (a comprehensive federal education policy replacing No Child Left Behind)—has multiple goals, but the first is to provide activities aimed at increasing academic achievement.<sup>12</sup> The program also seeks to provide students with a broad array of activities and programs that complement academics and engage families.

The legislation mandates that entities seeking funding include in their proposal “a description of the activities to be funded” and a “description of how such activities are expected to improve student academic achievement as well as overall student success.”<sup>13</sup> The legislation names 14 different programs or activities that qualify as “authorized activities,” including remedial education activities and academic enrichment learning, cultural programs, literacy education programs, well-rounded education activities, technology education programs, programs that support healthy and active lifestyles, parenting skills programs that promote parental involvement and family literacy, and drug and violence prevention programs.<sup>14</sup> Some of these activities, such as remedial education, include formal

academic instruction, while others, such as cultural programs, might support academics indirectly by strengthening youth development.

## What Should We Expect from Out-of-School Time Programs?

OST programs vary in focus, content, staffing, and, consequently, in the benefits they provide to youth and families. For this review, we consider an OST program occurring during the school year or summertime to be one that (1) includes structured activities for groups of students, (2) is overseen by an adult, (3) expects regular attendance, and (4) is provided in a physical location, such as a school or community-based facility. In Table 1, we categorize OST programs based on their program content and provide an overview of the primary outcomes we would expect from those activities along with secondary outcomes that may accrue indirectly. A program's stated goals may include outcomes that we do not include, and individual programs may vary from what we describe here as typical. Our goal here is to specify the primary outcomes we would expect based on program content—separate from other outcomes that may be achieved indirectly.

**Specialty programs.** Specialty programs focus on providing a specific set of experiences or developing a specific set of skills and are the type of program that youth from middle- and upper-income families commonly access for a fee. They tend to be taught by someone with content expertise, vary in duration (e.g., one week, four to eight weeks, or for the full year), and do not meet as frequently during the school year as multipurpose programs do (see Table 1). For instance, a program

## Aims of 21st Century Community Learning Centers

- (1) Provide opportunities for academic enrichment, including providing tutorial services to help students, particularly students who attend low-performing schools, to meet the challenging State academic standards
- (2) Offer students a broad array of additional services, programs, and activities, such as youth development activities, nutrition and health education, drug and violence prevention programs, counseling programs, arts, music, physical fitness and wellness programs, technology education programs, financial literacy programs, environmental literacy programs, mathematics, science, career and technical programs, internship or apprenticeship programs, and other ties to an in-demand industry sector or occupation for high school students that are designed to reinforce and complement the regular academic program of participating students
- (3) Offer families of students served by community learning centers opportunities for active and meaningful engagement in their children's education, including opportunities for literacy and related educational development. (Pub. L. 114-95, 2015)

on computer coding instruction may run for two hours, once a week, for six weeks. As a set, these programs provide opportunities for participants to develop skills and interests. The specific skills we expect these programs to produce are directly linked to the skills taught. For instance, we would expect youth engaged in the coding program to gain coding skills, while we would expect Girl Scouts (a broader program

TABLE 1

## Key Dimensions Linking OST Program Content to Primary and Secondary Outcomes

PROGRAM FOCUS	TYPICAL PROGRAM ACTIVITIES	TYPICAL FREQUENCY	TYPICAL STAFFING	POTENTIAL PRIMARY OUTCOMES	POTENTIAL SECONDARY OUTCOMES
<b>Specialty:</b> Sports, arts, science and technology, youth development (e.g., soccer, drama, coding, Girl Scouts/Boy Scouts)	Fundamental activities promoting skills of the specialty topic	Varies	Instructors with specific content expertise	New experiences and opportunities Skill development (which may be targeted noncognitive skills for youth development programs)	Noncognitive, developmental School behavior Academic achievement Attitudes
<b>Multipurpose:</b> 21st CCLC, school-aged child care, Boys and Girls clubs	Homework help Recreation activities (games, free play) Enrichment (arts, technology, sports) Snacks and/or meal	School year: 5 days per week for 3 hours per day Summer: 5 days a week for up to 8 hours a day	Youth workers May or may not include school teachers for homework help or academic enrichment	Safety/supervision Family employment Homework completion New experiences and opportunities Health and wellness	School behavior Noncognitive, developmental Academic achievement Attitudes
<b>Academic:</b> Summer learning programs, reading or math after-school enrichment	Academic content (e.g., English–Language Arts, mathematics) Recreation activities Enrichment activities Snacks and meal	School year: 3–5 days per week for 3 hours per day, typically 45–90 minutes of academic instruction Summer: 4–5 days per week for 4–6 weeks, either half-day or full-day, 60–120 minutes per subject	Certified teachers provide academic instruction Youth workers provide recreational activities	Academic achievement Safety/supervision Family employment New experiences and opportunities Health and wellness	Noncognitive, developmental School behavior Attitudes

targeting multiple skills) to provide experiences, introduce new skills, and build such youth development skills as confidence and leadership. Specialty programs also intend to develop interest or skills in these programs' particular topics. Over time, these opportunities can lead participants to gain the noncognitive and developmental skills necessary for adulthood, which may first manifest in school behavior. Although important to youth development, these programs fall outside of our literature review because they do not tend to be rigorously studied on a large scale, nor are they primarily publicly funded. Rather, parents value these experiences and judge these programs by the quality of experience provided and youth enjoyment.

**Multipurpose programs.** Many after-school and summer programs eligible for federal funding fall into this category. In a comprehensive piece on organized activities, Vandell and colleagues (2015) define these typical after-school programs using four standards: “. . . (a) [programs] meet on a regular basis throughout the school year; (b) are supervised by adults; (c) offer more than one type of activity (e.g., homework help, recreation, arts and crafts); and (d) are structured around group-based activities.”<sup>15</sup> Multipurpose programs are typically offered four or five days a week after school for approximately three hours each day. If run during the summer, these programs may operate full- or half-day for five days a week. These programs are run by staff who work with youth, commonly referred to as “youth workers,” and typically provide children and youth a snack, time for homework (which may or may not be supervised by a certified teacher), and a set of recreational or enrichment activities that students may select, such as arts, technology, sports, or games. Some of these activities may

be specialty programs. For instance, youth in a 21st CCLC program may be able to select a computer coding activity offered by a specialized nonprofit on Tuesdays and Thursdays.

Based on the content of this type of program, we would expect that participation would directly result in increased safety and supervision for youth, homework completion, opportunity through enrichment, and health and wellness through snacks and meals (if healthy) and physical activity. By providing childcare after school hours but during traditional work hours, we would expect these programs to enable consistent employment of parents and guardians (and to reduce stress over potential loss of employment). Secondary benefits may also accrue to youth. Completing homework more regularly could result in improved classroom grades if factored into teacher grading. However, literature indicates it is unlikely to substantially benefit students on standardized achievement tests, particularly at the elementary level.<sup>16</sup> Over time, these enrichment opportunities could lead to the noncognitive and developmental skills important for later life success that may first manifest in school behavior.

**Academic programs.** We characterize OST programs as being “academic” if the program provides academic instruction to students by a certified teacher using a curriculum. These programs can be remedial or intended to enrich or accelerate student achievement and operate after school or during the summer. When offered after school, academic instruction is typically 45–90 minutes (often in either reading and language arts or mathematics) of a three-hour program that also typically includes a snack and/or a meal and enrichment activities (often provided



by youth workers). When offered during summer, instruction typically is 60–120 minutes in each academic subject taught. These programs can last four to eight hours per day and typically operate from four to six weeks during the summer. Based on program content, we would expect direct benefits of participation to include improved academic achievement in the content taught and those described for the multipurpose programs.

### **What Does the Literature Reveal About the Effectiveness of OST Programs?**

To examine the evidence base on OST programs and better understand the possible effects of programs, we reviewed meta-analyses and large-scale, rigorous experimental and quasi-experimental evaluations of after-school and summer programs. We focused primarily on recent (from 2000 on) evaluations of multipurpose programs (e.g., 21st CCLC)<sup>17</sup> and academic OST programs.<sup>18</sup> A complete list of studies reviewed and their key findings is presented in the online appendix.

Before presenting key conclusions from our reviews of large-scale OST program evaluations, it is important to consider the limitations of the literature, and what these studies can and cannot tell us. Here, we cover three main points but acknowledge that other important study factors may limit conclusions, which should be considered. First, when studies evaluate the effectiveness of 21st CCLC programs, they are examining the *funding stream* to multiple centers and organizations implementing a range of programming, as opposed to examining a single program

or curriculum. The 21st CCLC funding is not intended for programs to implement the same activities, but instead can be used to fund programs aligned with the 14 different “authorized activities” outlined in the legislation. Second, even though evaluations may randomly assign youth to participate or not participate in the OST program being studied, youth can choose not to participate or to participate in other OST programs. So, these evaluations examine whether offering the studied program produces better outcomes than “business as usual,” which can include participation in alternate OST activities and programs. Third, evaluations of OST programs are limited in size, outcomes assessed, and rigor. For this review, we focus on experimental and quasi-experimental studies and meta-analyses. We do not include small-scale, nonexperimental studies, which, while important for understanding process elements of programs that may lead to their effectiveness, do not produce generalizable findings. Larger-scale, rigorous studies, such as those that we reviewed, are less common and also have limitations, a key one being the number of outcomes assessed. Larger-scale studies are expensive and time-intensive, so researchers must make hard decisions about the outcomes to focus on, which can lead to potentially omitting a primary or secondary outcome that programs could influence. Further, even these larger studies may be underpowered to detect certain outcomes of interest. Because of these limitations, we believe it is important to examine and evaluate the whole body of evidence on OST programs and strive to understand what makes programs effective or ineffective prior to drawing policy conclusions or making funding decisions. The findings listed here represent the authors’ assessment based on the body of literature reviewed. We note that The Wallace



Foundation has recently funded an extensive evidence review on after-school and summer programming, which is expected to be released in 2018 and will cover a broader set of literature than reviewed here.

### OST Programs Tend to Produce Outcomes Directly Linked to Program Content

Across studies, we find evidence that OST programs typically produce the primary outcomes expected by the content of programming delivered to youth. Potential secondary benefits of programs tend not to be detected by studies. However, many primary outcomes are unmeasured in evaluations, while secondary outcomes often are measured (Figure 2). We will expand on key conclusions regarding these outcomes.

### Multipurpose OST Programs Can Improve Supervision and Safety of Youth

Findings from randomized studies of 21st CCLC programs and other multipurpose programs indicate that youth assigned to participate in the programs were more likely to be supervised by adults, and elementary school participants reported feeling safer compared with youth not assigned to these programs.<sup>19</sup> Increased adult supervision meant that students were less likely to be cared for by older siblings and had less time for unsupervised activities with peers out of school.<sup>20</sup> Adult supervision is important to youth development and promotes personal safety and not participating in risky behaviors, such as smoking.

FIGURE 2  
Many primary outcomes of OST programs are not adequately measured.



## Academic OST Programs with Sufficient Dosage Can Measurably Improve Student Achievement

Our review examined OST programs, including summer-time interventions that provide academic instruction. Unlike multipurpose programs, these programs specifically focus on improving youth's math or literacy skills by implementing a curriculum and providing academic lessons by teachers. Random assignment evaluations of these programs have found that including intentional academic instruction and enrichment activities can improve student achievement. For example, a reading intervention in an after-school program that provided 60-minute reading lessons, which included whole-class teacher instruction and two of three rotation exercises each day, four days a week for 23 weeks found positive reading outcomes.<sup>21</sup> Similarly, a math after-school program for children in grades 2–5 that provided structured math instruction three to four days a week for a full school year produced significant effects after one year on a standardized math test.<sup>22</sup> The same study examined a reading after-school program and found no significant effect on reading instruction after one year—but, importantly, the treatment and control groups were significantly different on prior reading achievement at baseline (treatment condition on average scored significantly worse than the comparison group).

Voluntary summer learning programs for low-income elementary students have also been found to be effective at improving student achievement. A study of a voluntary summer learning program for low-income elementary school students providing five weeks of reading and enrichment activities found positive effects of the program

on reading (mathematics outcomes were not studied).<sup>23</sup> Similarly, a five-week literacy and arts program for kindergarten students produced positive effects in some aspect of literacy. A multidistrict study of voluntary summer programs that provided five weeks of full-day programming to rising fourth-grade students, with three hours of academic instruction in reading and mathematics, found that students assigned to the summer program performed significantly better on a math assessment after the completion of the program compared with students in the comparison group, but that no differences emerged on the reading assessment.<sup>24</sup> However, not all programs studied have found significant positive effects, and a voluntary program for middle school students did not find effects in mathematics or reading.<sup>25</sup>

The results presented here for the academic programs are from the first year of evaluation. Studies with follow-up evaluations find no effect of *offering* the program to the same students for a second year or summer, in part due to substantial decline in participation among treatment group students. In the evaluations we reviewed, anywhere from 25 percent to more than 40 percent of youth in the treatment groups did not attend in the second year.<sup>26</sup> The high rates of attrition hinder our understanding of program effects by years of attendance. A notable exception to this pattern does exist, however. A study of Higher Achievement, an academic OST program operated after school and during the summer, found some benefits in the second year that were not found after the first year.<sup>27</sup> This program is explicitly designed as a multiyear program, and parents and students understand at enrollment that they are expected to continue their participation across years. Similar programs that want to serve the same students year

after year may need to build that expectation into their design and enrollment process.

### **Noncognitive and Behavioral Benefits May Be Found When Intentionally Taught, but Secondary Benefits Are Not Typically Detected**

Most of the OST programs that have been studied in randomized evaluations did not implement a curriculum or specific activities targeted to improve specific noncognitive skills (e.g., self-regulation, communication). Instead, they provide opportunities for “leadership” or “character development.” From these studies, we lack information about the actual activities provided and how they differ across programs. Evaluations of multipurpose programs that did not adopt an intentional focus on developing these skills find no significant differences on such outcomes as prosocial attitudes and social competence, and find mixed effects on negative behavioral outcomes such as school discipline and suspension.<sup>28</sup> Evaluations of academic programs do not demonstrate consistent noncognitive results either, with most finding null effects, although an evaluation of Higher Achievement found it reduced self-reported misconduct.<sup>29</sup>

However, a meta-analysis of after-school programs that included at least some element of programming directed at developing social and emotional skills or that provided staff professional development around social and emotional skills found small to moderate positive effects on social behaviors and self-perceptions, and a significant effect on the reduction of problem behaviors.<sup>30</sup> Further, in one review of programs with curricula targeting the development of social and emotional outcomes, the authors found

evidence that certain of those OST programs were associated with improvements in those skills.<sup>31</sup>

### **Homework Help in Multipurpose Programs Does Not Result in Higher Standardized Test Scores**

A key element of multipurpose after-school programs, including those funded by 21st CCLC, is to provide youth with time and support to complete homework. Results from the first rigorous national evaluation of 21st CCLC, which was conducted over three years using two cohorts of youth, showed that out of the wide variety of activities offered by programs, homework help was the most consistent.<sup>32</sup> Similarly, in states’ evaluations of 21st CCLC and other large-scale evaluations of multipurpose after-school programs, researchers consistently noted that activities provided to youth included academic enrichment or homework help.<sup>33</sup> While some studies have found stronger rates of homework completion or homework being completed to a teacher’s satisfaction, none of these studies found an effect on academic outcomes as measured by standardized reading or math scores.<sup>34</sup> This

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A key element of multipurpose after-school programs, including those funded by 21st CCLC, is to provide youth with time and support to complete homework.

pattern is consistent across the large-scale studies of elementary and middle school OST programs referenced earlier using experimental and quasi-experimental methods as well.

Given that research outside of the OST field has found there is no significant correlation between the amount of homework completed and student achievement at the elementary school level and only a small relationship with student achievement at the middle school level, the null findings for student achievement are not surprising.<sup>35</sup> Even if these programs improved student achievement, many evaluations of after-school programs are underpowered (i.e., analyses cannot determine whether an effect is significant because of the sample size of programs, youth, or both) to find what is likely a very small effect on achievement measured by general, standardized tests. For example, random assignment evaluations of multipurpose programs have been powered to find effect sizes of approximately 0.10 to 0.20. These effect sizes are fairly large for educational research and are in some cases equivalent to the gain a student would make during a whole year of school<sup>36</sup>—an unrealistic expectation for an after-school program that is providing 45 minutes of homework help each day.

### **Primary Outcomes of the Programs Are Often Understudied or Underreported**

OST programs often have primary outcomes that are either understudied or not reported as often as academic or social and emotional outcomes. For instance, a key benefit of

after-school programs is providing experiences to youth that they may otherwise not have, building human and social capital, and helping to close the opportunity gap. However, no evaluation we reviewed explicitly measured these outcomes or described the quality and nature of those experiences. This absence is problematic if field practitioners believe experiences matter for youth development and are something OST providers value. We also lack evidence regarding whether health benefits accrue to participants.

Another primary outcome that is often understudied or underreported is the benefit to parents. Without OST care, parents who do not have flexible work schedules are left with few or expensive childcare arrangements. One expected benefit of programs is improved parental employment. Evaluations of after-school programs sparsely cover this outcome; however, surveys of parents note the importance of the programs for employment purposes.<sup>37</sup> In the national evaluation of 21st CCLC, the researchers found mixed results on labor outcomes.<sup>38</sup> Compared with parents of children in the control condition, parents of children attending the program had significant positive labor force participation in the first year of the study but not in the second year. However, the study authors did not address whether the program influenced the number of hours that parents were able to work per week, the ability to maintain employment, or the level of stress over potential loss of employment. Adding such parent measures to experimental and quasi-experimental studies could help with fully

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Without OST care, parents who do not have flexible work schedules are left with few or expensive childcare arrangements.

understanding how OST programs affect parental and family labor force participation and well-being.

## **Program Quality and Intentionality Influence Outcomes**

Several studies point to the relationship between program quality and student outcomes. These associations, although not causal in nature, demonstrate important correlations that shed light on elements of programs most important for youth development. For instance, a study of summer programming noted consistent positive associations between the quality of instruction (focused on clear instruction, on-task behavior, and teachers' ensuring that all students understood the material) and language arts achievement.<sup>39</sup> Similarly, a study of an academic after-school program found substantial variation in academic outcomes by site, potentially indicating the importance of program quality, such as staff qualifications, instructor interactions, materials used.<sup>40</sup> When examining individual elements of programs, a key dimension related to youth development (including academic achievement and social skills) is instructor-child relations.<sup>41</sup> These relations are defined by staff reacting positively to youth, speaking in warm and respectful tones, engaging with them, and being enthusiastic. Evidence suggests that program quality also matters for youth experiences. For example, one study found that such program characteristics as a positive climate and stability in staffing are related to positive student experiences.<sup>42</sup>

A meta-analysis of after-school programs that sought to enhance students' social and emotional skills indicated that when the programs explicitly targeted specific skills, participants demonstrated positive outcomes—such as significant increases in their self-perceptions, bonding to school,

positive social behaviors, and academic achievement—along with reductions in problem behaviors.<sup>43</sup> Targeting specific skills in this instance included program time and content dedicated to building those skills, sequential activities that built on one another, and active learning techniques.<sup>44</sup> One example of this type of intentional program is Higher Achievement. As discussed earlier, Higher Achievement is an after-school and summer program intended to improve achievement, promote prosocial behaviors, and result in improved high school selection and graduation among its middle school scholars by providing homework help and tutoring, summer programming, mentoring, and information and activities related to high school selection and college. An experimental study of the program found that it resulted in stronger achievement in mathematics (after the second year), self-reported prosocial behaviors, a desire to go to more-competitive high schools, and the selection of more-competitive high schools among its scholars compared with control group students.<sup>45</sup> The findings regarding high school selection particularly highlight the link between program activities and outcomes.

## **Youth Need to Attend Regularly to Measurably Benefit from Programming**

Studies of academic and multipurpose OST programs consistently demonstrate that greater benefits accrue to those with strong rates of participation.<sup>46</sup> For instance, in a study of academic voluntary summer learning programs, the authors found promising evidence that students who attended the summer 2013 program for at least 20 days benefited relative to comparison group students in mathematics in fall 2013, and those effects persisted through spring 2014; after the summer 2014 program, high attenders outperformed the

comparison group in both mathematics and language arts in the fall and spring. These benefits were also demonstrated on state academic assessments in spring. The study's authors hypothesized that the positive benefits in language arts after the second summer were due to improved programs and consecutive summers of programming.<sup>47</sup> Similarly, in a study of Higher Achievement, the authors found significant benefits after the second year of participation and exposure to the program.<sup>48</sup> Promising evidence for the relationship between attendance and outcomes is also found in studies of state 21st CCLC programs, with benefits from programming accruing to “consistent attenders” who attended at least 30 days of the program during the school year.<sup>49</sup>

### **Including an Academic Component Does Not Reduce Participation for Elementary School–Aged Children**

Many providers wonder if adding an academic component for lower-achieving students to an OST program will lower participation rates. A few randomized studies at the elementary school–level have compared the effectiveness of academic OST programs and multipurpose programs. In these studies, students assigned to the academic OST programs had stronger attendance compared with students in the multipurpose programs.<sup>50</sup> For instance, in one study, on average, students in the academic program attended 65 days, while students in the multipurpose program attended 58 days. This finding is consistent across studies and subject (e.g., math or reading programs). Research also demonstrates that elementary students are willing to participate in voluntary academic OST programs over the summer, with student attendance rates for participants around 75 percent across five school districts.<sup>51</sup> However,

teachers and staff made intentional efforts to track and encourage student attendance in all these programs.

We lack evidence regarding whether this would be the case for middle school students as well. A prior study of a 21st CCLC program that surveyed middle school youth indicated that choice of activities was important to them and that the participants did not want the program to feel like school but instead have choices available to them.<sup>52</sup> These findings suggest that best practice for all grade levels may be particularly important at the middle school level—that the academic component should be targeted directly to student needs, the program should regularly monitor and encourage attendance, and that the enrichment activities should be engaging and reflect participant interest (e.g., “choice-based”).

### **Final Reflections and Recommendations for Policy and Practice**

No single study can speak to the effectiveness of a field. Instead, stakeholders should examine a body of evidence when making funding decisions and setting policies to enhance quality improvements. Indeed, researchers, OST intermediaries (who coordinate groups of program providers with common goals and measures), and OST program providers have used research emerging from this field to make important improvements to support quality programming. For instance, local intermediaries and OST state networks that support OST providers have adopted quality standards, provide professional development, and help providers track attendance and make intentional programming choices. Every Hour Counts, a national intermediary, has created



and will continue to improve a measurement framework to help guide local intermediaries and support the assessment of their work.<sup>53</sup> Researchers have developed quality measures and help support intermediaries and providers using them to improve program quality. The key findings of the literature we reviewed have implications for federal and state policymakers, local foundation funders, OST intermediaries, OST providers, and researchers as they continue seeking to improve the quantity and quality of OST programs. These findings inform the recommendations that follow.

**When making funding decisions, federal, state, and local policymakers should consider all the benefits that OST programs provide.** The availability of OST programming for students from low-income families depends on the availability of funding—and even with current funding levels, the supply of high-quality programming does not meet demand from families. OST programs can provide multiple benefits to families and students, which should all be weighed when states or federal governments are making funding decisions. Further, continuity of funding streams can be leveraged to support access and quality, which will promote strong youth and family outcomes. In the opinion of the authors, OST programs for low-income students are worthy of public investment and should be funded at levels that support high-quality programming.

**Policymakers, private funders, and intermediaries should incentivize and support OST providers' efforts to develop intentional, high-quality programs.** Not surprisingly, research demonstrates a link between program quality and improved student outcomes. Quality OST programs are intentionally designed to provide engaging activities that are sequenced and aligned with program goals and are taught by trained, dedicated instructors who work effectively with youth. Policymakers and funders can incentivize intentional, quality programming by providing adequate resources and prioritizing funding for programs that can demonstrate intentionality of design and quality characteristics. Local and national OST intermediaries can support OST program providers by continuing to establish quality standards, provide professional development, and support data collection and continuous improvement.

**Policymakers, private funders, and researchers should better catalog and assess the value of experiences offered in OST programs.** The opportunity gap between youth from low-income and higher-income families is substantial and likely contributes to the attainment gap that manifests in high school and college graduation rates, as well as in future employment. OST programs can help close the opportunity gap by providing youth with opportunities that they might not otherwise experience (e.g., arts, theater,

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Policymakers and funders can incentivize intentional, quality programming by providing adequate resources and prioritizing funding for programs that can demonstrate intentionality of design and quality characteristics.



sports, STEM). But there are other OST experiences that might not provide new opportunities, such as open-play in a gymnasium. More attention by funders and researchers to understanding the type and quality of experiences of youth in OST programs and the resources needed to provide them may improve the content and quality of experiences provided in the programs. Specialty OST programs are most like those experienced by middle-income or affluent families. These programs tend to be understudied, but families consider them a core contributor to youth development and exploration. Such specialties (e.g., violin lessons) can be offered as activities in multipurpose programs when sufficient funding is available. Researchers should clarify the link between such OST activities and benefits for students. A concrete way to show the connection between OST activities and student outcomes is to develop a program logic

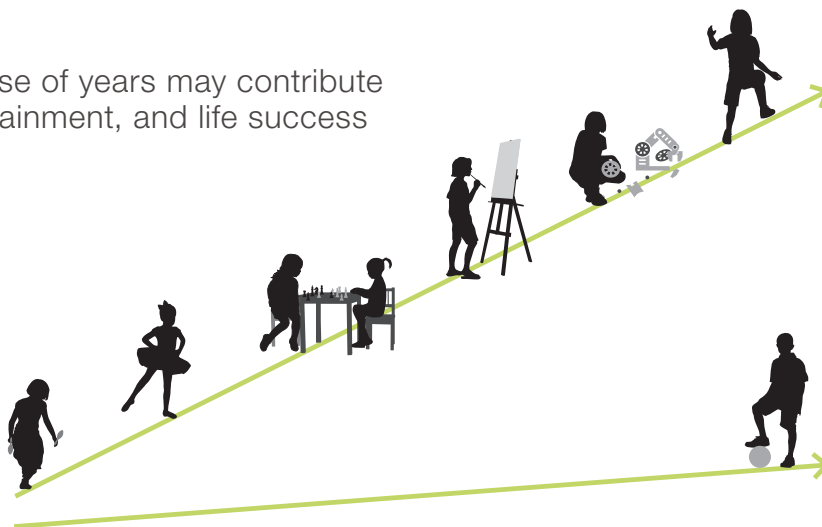
model that details inputs and activities needed to achieve the anticipated outcomes.

Also, it may be that we need a different, longitudinal approach to investigating and understanding OST programs' contribution to youth development. It might be that a combination of experiences over a course of years contributes more to youth development, academic attainment, and life success than does one individual program (Figure 3).

**Funders should expect and researchers should measure outcomes that align with program content.** Overall, the review of the literature points to an overarching understanding that OST programs can produce outcomes that match program design and content. Evaluations tend to be unable to find smaller secondary benefits that programs might produce. Thus, funders should request and researchers should design evaluations that are guided not

FIGURE 3

A combination of experiences over a course of years may contribute more to youth development, academic attainment, and life success than does one individual program.



just by a program's stated goals but also by its content, and these evaluations should realistically assess whether activities will result in *measurable* differences in given outcomes. From our review, we find programs tend to be evaluated without sufficient attention to the activities provided or the quality of the content and to be judged by a common metric (e.g., achievement test scores). When evaluation outcomes are not aligned with program content, other outcomes important for youth development and family well-being are not examined, which does not provide a complete picture of the potential benefits of OST programs.

If academic gains are a primary goal of the program, students should receive rigorous instruction by a qualified teacher using a curriculum matched to their needs. If staff members take steps to track and encourage consistent participation, evidence confirms that having an academic component will not dissuade attendance at the elementary level.

**OST programs should track and try to maximize attendance of each individual student.** Quasi-experimental and exploratory analyses in randomized evaluations demonstrate that attendance in OST programs is correlated with program outcomes. In academic programs, high attenders consistently benefit from programming relative to control group students. However, in many OST programs, attendance is measured and reported by the number of students in attendance on a given day, without regard to whether the same students are attending regularly. OST providers and intermediaries should work to capture more-nuanced data by tracking attendance at the student level, reporting on drop-outs and no-shows and on high and low attenders, and enhancing data systems to follow youth longitudinally. Doing so will enable practitioners and researchers to better examine participation and its benefits. Additionally, we suggest programs encourage attendance through describing associated benefits of attending at high rates, offering engaging programming, and working with schools and parents to better understand how to increase daily participation.

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## About This Report

To better understand the value and effectiveness of out-of-school time (OST) programs, RAND researchers examined programs through the lenses of content, dosage (the hours of content provided), and outcomes measured, focusing on rigorous (i.e., experimental or quasi-experimental) large-scale evaluations and meta-analyses. The overall conclusion is that OST programs are generally effective at producing the primary outcomes that would be expected based on their programming. However, the primary benefits of such programs are often understudied or underreported. When making funding decisions, federal, state, and local governments and private foundations should consider all the benefits that programs provide to youth and families and emphasize program quality.

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