EFFECTIVE AND PROMISING SUMMER LEARNING PROGRAMS AND APPROACHES FOR ECONOMICALLY-DISADVANTAGED CHILDREN AND YOUTH

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Child Trends

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Effective and Promising Summer Learning Programs and Approaches for Economically-Disadvantaged Children and Youth:

*A White Paper for the Wallace Foundation*

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Executive Summary

Children and youth who reside in economically disadvantaged households and who live in low-resource, urban neighborhoods are more likely to lose ground in math and reading over the summer than their middle- and upper-class peers. These children and youth often come from ethnic minority backgrounds. This achievement gap widens as children grow older, creating social and academic inequities. Summer learning programs are an important strategy for narrowing the achievement gap.

In their position paper entitled “Plan for Lifetime Success through Education”, Barack Obama and Joe Biden recommend “expand[ing] summer learning opportunities” as a way to narrow the achievement gap. Recently, they introduced the “STEP UP” plan, which supports increasing summer learning opportunities for disadvantaged students. In light of this recent call for action, identifying effective summer learning approaches for this population is imperative.

This White Paper summarizes findings from an extensive literature review that was conducted to identify the most promising models and approaches for meeting the needs of low-income children, youth, and families during the summer months. Special attention is paid to summer learning programs that serve diverse, urban low-income children and youth. Data on program participation suggest that children and youth who would stand to benefit the most from summer learning programs (i.e., children and youth who are economically disadvantaged, have low school engagement, and/or exhibit problem behavior) are the least likely to participate.

Experimental and non-experimental studies, as well informal evaluation reports and papers reporting practitioner insights, were reviewed to identify effective and promising summer learning practices. Program impacts from experimental evaluations were identified for outcomes ranging from math and reading achievement to an increased likelihood of employment. Drawing from a limited number of ten experimental evaluations, we found that reading achievement gains were achieved for a handful of programs, whereas math achievement was less often a program focus and impacts were less consistent. Few impacts were found on high school completion, college enrollment, and employment. Finally, a lack of evidence was found for youth development and health and fitness outcomes due to the fact that these outcomes were rarely, if ever, evaluated.

Without question, there is a paucity of experimental research to measure the impacts of summer learning programs on children and youth. At the same time, we have some preliminary evidence to suggest that good summer learning programs can improve the educational outcomes of economically disadvantaged students. Strategies for preventing summer learning loss include: (a) identifying effective summer learning programs and approaches and replicating them; (b) extending effective school-year, out-of-school time programs that have academic components through the summer; (c) improving existing programs by incorporating the characteristics of effective and promising programs; and (d) establishing extended-year or year-round schools that incorporate practices and approaches from effective summer learning programs.
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History and Background

Summer learning and enrichment programs (e.g., educational camps and summer reading programs) are known to have begun in the late 1880s (Fiore, 2005), if not before. By this time, perceptions of youth residing in urban, inner-city areas had shifted from viewing children as little adults who needed religious education and distance from the social problems of urban life to viewing them as individuals who needed guidance and support from caring adults and social institutions. While some programs focused on developing vocational and reading skills, others, like Trailblazers, focused on the development of values and life skills. Trailblazers was founded in 1887 to improve the youth development outcomes of poor children from New York City. This organization, which runs a summer camp on a 1,100 acre Nature Conservancy area in New Jersey, continues to this day. Organizations like Trailblazers paved the way for summer camps and many other youth serving organizations.

Although summer camps in the U.S. have a rich history, few have undergone rigorous evaluation and even fewer are designed to support the needs of economically disadvantaged youth. This is partially because many parents with limited resources can not afford to send their children due to the cost of tuition. Overnight or sleepaway camps range from 2 to 8 weeks and cost $300 to $2000 per week; day camps cost substantially less, but are rarely offered free of charge. Nonetheless, summer camps are believed to promote child and adolescent well-being. A recent non-experimental (no comparison group, no random assignment), study of 3,395 families whose child attended one of 90 day or residential summer camps for at least one week found improvements from pre-test to post-test in positive identity, social skills, physical and thinking skills, and positive values and spirituality.

In recent years, attention to summer learning programs for disadvantaged children and youth has grown. Much of this heightened attention may relate to the impetus of the No Child Left Behind legislation and by recent studies on summer learning loss which find that low-income youth regress more in reading skills over the summer than their higher income peers. For example, Alexander and his colleagues (2007) found that about two-thirds of the ninth-grade academic achievement gap between economically disadvantaged and advantaged teens can be explained by summer learning loss during the elementary school years. The tendency of low-income youth to lose reading and literacy skills over the summer may be explained by less time spent reading and less time spent in the library during the summer months than their middle- and high income peers.

Offering disadvantaged youth access to a variety of summer learning experiences has become a priority for the new administration. In their position paper entitled “Plan for Lifetime Success through Education”, Barack Obama and Joe Biden recommend “expand[ing] summer learning opportunities” as a way to narrow the achievement gap. Recently, they introduced the “STEP UP” plan, which supports increasing summer learning opportunities for disadvantaged students. This paper may be viewed as a resource to inform funders, policymakers, and administrators on the various ways in which they may respond to this recent call for action.
Data on Summer Program Participation

Out of 11 nationally-representative surveys reviewed, only four surveys – the National Survey of America’s Families (NSAF) 1999, the Early Childhood Longitudinal Study – Kindergarten Cohort (ECLS-K) 1998-99, the Child Development Supplement (CDS) to the Panel Study of Income Dynamics (PSID) 2002, and the Current Population Survey (CPS) 1996 – offered information on summer program participation. Findings for three of these surveys are summarized below:

- An analysis of ECLS-K 1998-99 data found that approximately 1 out of 5 children participate in overnight or day camps. Children with a high socioeconomic status (SES) were more likely to participate than children with a low SES (42.5 percent versus 5.4 percent).
- An analysis of CDS-PSID 2002 data found that children and adolescents (aged 6 to 17) from higher income families were more likely to participate in summer overnight camps and more likely to participate in organized activities during the summer. In addition, white children and adolescents were more likely to participate than non-white children and adolescents, with Hispanic children and adolescents being the least likely to participate.
- An analysis of the Current Population Survey 1996 data found that 36 percent of children aged 6 to 11 participate in organized summer activities.

Our study builds on existing work by analyzing NSAF data to explore additional correlates of summer program participation, such as social-behavioral factors and school and out-of-school-time involvement. In addition, the 1999 NSAF variable is more inclusive in that it specifically asks about summer programs. The question is worded: “Is [your child] attending a summer program?” (Section C: Parent/Child/Family Interaction and Education, item C02). [Although 2002 data are available, these data do not include variables that focus exclusively on summer program participation.]

Findings from the 1999 National Survey of America’s Families

We analyzed the summer version of the 1999 NSAF survey (of 6,656 households), to explore whether children (aged 6 to 11) who participate in summer programs differ from children who do not participate. Analyses of overall participation suggest that, in contrast to the proportions noted in the surveys referenced above, 1 in 4 children participate in summer programs. This proportion differs from the proportions obtained in analyses of the ECLS-K 1998-99 and the CPS 1996, most likely due to differences in the wording of the items. It is higher than the ECLS-K finding (20 percent), most likely because the ECLS-K item is limited to overnight and day camps; and it is higher than the CPS 1996 finding (36 percent), most likely because the CPS 1996 item uses more inclusive wording (“organized summer activities, such as camp, organized recreation or sports, special interest programs, or [lessons/classes]”).

Overall, summer program participation rates are lower than participation rates for school-year, out-of-school time programs (it is estimated that 4 in 5 children and youth participated in some type of out-of-school time activity in the past 12 months). Several reasons may account for this. First, many summer programs are offered at a cost, whereas most afterschool time programs are offered free of charge. Second, summer program offerings may be less available to students than afterschool and other school-year, out-of-school time programming – due to there being
fewer programs. Third, summer programs, on balance, are less accessible than afterschool programs, because they are more likely than afterschool programs to require transportation back and forth from the program. Other factors are also likely to account for the lower summer program enrollment rates.

To better understand who participates in summer programs, we ran crosstabs, t-tests, and multivariate regressions to identify sociodemographic and social-behavioral differences between summer program participants and non-participants. The findings of these analyses are summarized below and outlined in Tables 1, 2, and 3 (located in Appendix A).

**Sociodemographic Differences**

Participation varied among participants who differed with respect to family structure and economic backgrounds (p<.001; see Table 1). Children who participated in summer programs were more likely to:

- reside in households with two biological or adoptive parents (28 percent versus 21 percent of those who reside with single mothers); and
- come from higher-income households that are at least 200 percent above the poverty line (29 percent versus 18 percent for those from lower income households);

However, after controlling for the covariates (i.e., gender, race, poverty, and family structure), however, socioeconomic differences were the only differences that remained. The strong association between poverty and program participation is consistent with research on out-of-school time programming which has found that children living in families below 200% of the federal poverty line are less likely to participate in activities out of school (34 percent compared to 9 percent).

Interestingly, although a much higher proportion of white children participate in school-year, out-of-school time programs than black children (82 percent versus 65 percent)xix, summer program participation rates are equivalent for black and white children (about 25 percent for each group).

**Social-Behavioral Differences in School and Out-of-School Time Involvement**

Children who are more engaged in school and involved in school activities and clubs are more likely to participate in summer programs than children who less engaged. A comparison of percentages found:

- Children with high school engagement were more likely than children with low school engagement to participate (30 percent versus 15 percent) in summer learning programs;
- Children who attended clubs are more likely than children who did not attend clubs in the past year to participate (29 percent versus 20 percent); and
- Children who were involved in 3 or more extracurricular activities are more likely than children who were not involved in any activities to participate (27 percent versus 15 percent).

After controlling for sociodemographic covariates, however, club participation was the only measure that was significantly associated with summer program participation. Because these are cross-sectional data, it is not possible to say whether these findings reflect selection effects. They
do indicate, though, that participation in summer learning programs is more common among children who enjoy or are able to spend time with groups of peers in organized activities.

**Other Social-Behavioral Differences**

Finally, children described by parents as having more social competence, fewer behavioral problems, and better peer relations are more likely than their counterparts to participate in summer programs. A comparison of percentages found:

- Children with higher levels of *social competence* are more likely than children with lower levels of social competence to participate (26 percent versus 14 percent);
- Children with fewer *behavioral problems* are more likely than children with many behavioral problems to participate (18 percent versus 13 percent); and
- Children who *get along with other kids* are more likely than children who do not get along with other kids to participate in summer programs (25 percent versus 12 percent).

These differences, however, become non-significant after controlling for covariates. Interestingly, children having fair or poor health are much more likely than those with good health to participate in summer programs (55 percent versus 23 percent), and this difference remains significant (p<.001), after controlling for covariates.

Although many of the differences are modest, these data tell a consistent story, with children who have greater problems or fewer assets being less likely to participate in a summer program. In other words, those children who might benefit most are the least likely to have participated in summer programs. Children in fair or poor health are the only exception. These children are considerably more likely to be in a program than are more healthy children. Although the sample size is small, the data suggest that programs are more available to children with health problems than to disadvantaged children.

**What are Summer Learning Programs?**

Summer programs have been developed for students with wide-ranging interests and needs. Examples include outdoor adventure camps, arts and music camps, sports camps, summer school, summer reading programs, high school transition programs, college preparatory programs, apprenticeships, and paid internship programs. Program formats range from a one-week course, to a two-week overnight camp, to a summer-long day camp. Typically, summer learning programs are about six weeks in duration and may be held at schools, places of worship, cultural centers, and youth-focused non-profit organizations.

In this White Paper, we focus on summer learning programs, as opposed to recreational, wilderness, or child care programs. Summer schools that focus on remediation are also not reviewed. Five types of summer learning programs are reviewed: (a) Educational/Cognitive (b) Youth Development; (c) Career Development; (d) Health and Fitness; and (e) Multi-element.

<table>
<thead>
<tr>
<th>Figure 1: Types of Summer Learning Programs</th>
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<tr>
<td><strong>Educational/Cognitive</strong> programs attempt to increase academic motivation and improve skills</td>
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1 Programs targeting physical health outcomes such as weight loss, nutrition, and asthma comprised a limited number of programs.
relating to reading, math, science, and technology. Effective programs teach these skills in the context of hands-on learning experiences and/or engaging cultural enrichment activities that incorporate the arts. Some educational summer programs are designed to meet the needs of under-performing children and some are designed for talented and gifted children, but the vast majority of programs are intended for all children. Summer educational programs may be remedial or enrichment, or use some combination of these two approaches.

| Youth development programs focus on fostering the skills necessary for personal, social, and career-related success. These skills include character development, interpersonal skills, life skills, health-related behaviors, conflict resolution skills, communication skills, leadership skills, and management skills. Activities related to service learning are often used to encourage civic participation and cooperation as well as career-related skills such as leadership and management. Some programs target a specific subpopulation of children, such as children with Attention Deficit and Hyperactivity Disorder or children with emotional and behavioral problems, however the vast majority do not. |
| Career development programs seek to improve career decision-making skills, promote interviewing skills, increase employment, decrease unemployment, and reduce the need for welfare benefits. These programs are typically delivered to high school juniors and seniors. |
| Health and fitness programs target behaviors such as developing healthy exercise and nutrition habits as well as developing disease management skills. These programs tend to target children with weight issues, disabilities, or other health-related issues. |
| Multi-element programs are designed to impact some combination of the above-mentioned program areas. |

How do Summer Learning Programs Differ from Summer School?

Traditionally, summer learning programs differ from summer schools in various ways. Although there is a growing movement to transform summer schools into learning environments that offer more engaging and enriching learning experiences for students, summer school has typically had the following characteristics:

- Solely include academic instruction;
- Focused on remediation and review;
- Attended by low-performing students;
- Frequently mandatory; and
- Take place over a half day.

Alternately, summer learning programs are more likely to:

- Engage students in recreational and enrichment activities, as well as activities focused on building positive relationships with peers and adults;
- Blend remediation with enrichment activities and more advanced curricula;
- Be attended by students of varied skill levels;
- Be voluntary; and
- Take place over a full day.

Given that we know little about the relative effectiveness of summer school versus summer learning programs for minimizing summer learning losses, we are not advocating that one type
of program supplant the other. Although some evidence suggests that summer school programs do not benefit the achievement of students from lower-income backgrounds as much as they benefit students from middle-class backgrounds\textsuperscript{xx}, this finding should not diminish the potential of summer schools, if given the opportunity to integrate effective summer learning practices, to make a significant impact on the academic trajectories of children and adolescents. For instance, if summer schools attracted children of varied skill levels – by offering a greater variety of experiences to students and focusing more on accelerated learning – they may improve students’ perceptions, eliminate negative stigmas, and increase student engagement.

**How do Summer Learning Programs Differ from School-Year, Out-of-School Time Programs?**

Summer learning programs differ from school-year, out-of-school time programs primarily in terms of structure and format. For example, summer learning programs are more likely than afterschool programs to:

- Be offered to participants at a cost;
- Be implemented with more intensity, meeting more frequently (every day);
- Be implemented over a shorter period of time (e.g., 6 to 8 weeks);
- Focused on academic instruction; and
- Use an accelerated learning approach.

Alternately, school-year, out-of-school time programs tend to:

- Be offered at no cost;
- Meet one to five times per week;
- Be implemented for 6 to 8 months;
- Focus on youth development; and
- Use remedial academic improvement strategies, homework support and tutoring.

Distinguishing between summer learning and afterschool programs allows us to see their unique contributions to the vast array of programs developed to support children and youth.

**What Outcomes do Summer Learning Programs Target?**

Summer learning and enrichment programs target a wide array of outcomes. Although most summer learning programs focus on academic instruction, many expect to achieve a broader range of impacts – improving youth development, career development, and health and fitness outcomes, in addition to educational outcomes (see Figure 2).

<table>
<thead>
<tr>
<th>Figure 2: Targeted Child and Youth Outcomes</th>
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<tbody>
<tr>
<td>Educational/Cognitive</td>
</tr>
<tr>
<td>- Grades</td>
</tr>
<tr>
<td>- Motivation to learn</td>
</tr>
<tr>
<td>- Attachment and belonging to school</td>
</tr>
<tr>
<td>- Academic self-efficacy</td>
</tr>
<tr>
<td>- Reading and math achievement</td>
</tr>
<tr>
<td>- Science and technology</td>
</tr>
</tbody>
</table>
The following section outlines the impacts of programs evaluated using experimental research designs. We focus on findings from experimental evaluation studies when discussing the impacts of summer learning programs, because the findings of these studies are more reliable and valid and allow us to draw conclusions about what intervention strategies do and do not work. Findings from non-experimental evaluations of summer learning programs and from evaluations of out-of-school time programs are discussed later in this paper.

**Experimental Evaluations of Summer Learning Programs**

To discern effective summer learning practices, we identified experimentally-evaluated summer learning programs, summarized their impacts, and analyzed whether effective programs shared any characteristics that distinguished them from non-effective programs. The methods we used to identify experimentally-evaluated programs, the findings/impacts of these programs, and a synthesis of their characteristics are summarized below.

**Methods Used to Identify Experimental Evaluation Studies**

We searched the following online databases to identify experimental evaluation studies: – LINKS (Lifecourse Interventions to Nurture Kids Successfully)\textsuperscript{xxi}, the Out-of-School Time (OST) Program Research and Evaluation Database\textsuperscript{xxii}, JSTOR, EBSCO, ED Pubs, ProQuest, and Google Scholar. EBSCO search terms were “summer learning,” and “out-of-school-time” and “program”. JSTOR search terms were “experiential summer education,” “summer learning,” “summer school,” “summer camp,” and “program evaluation.” All publications and presentations on the National Center for Summer Learning’s web site (www.summerlearning.org) were downloaded.

We focus on random assignment experimental evaluations to inform our discussion of the impacts of summer learning programs in the next section, as random assignment experiments represent the gold standard for examining impacts. Thus, programs that were delivered in the summer, targeted educational outcomes, and were evaluated using experimental research designs after 1985 were selected.

**Findings of Experimentally-Evaluated Programs**

Out of the 44 programs that were reviewed, only 10 programs have been evaluated using an experimental research design. (For a summary of these impacts, see Table 4 below and Tables 6 and 7 in Appendix C; for a list of all programs reviewed, see Table 5 in Appendix B). Program findings were classified into three different categories:

**Career Development**
- Career decision-making skills
- Job search skills
- Interviewing skills
- Vocational skills

**Health and fitness**
- Nutrition
- Physical activity
- Weight loss

<table>
<thead>
<tr>
<th>Graduation</th>
<th>Behavior problems (e.g., school attendance, aggression)</th>
</tr>
</thead>
<tbody>
<tr>
<td>College enrollment</td>
<td>Civic Engagement</td>
</tr>
<tr>
<td></td>
<td>Reproductive Health</td>
</tr>
</tbody>
</table>

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• **Not Proven to Work.** Programs in this category have no impacts on particular outcomes.

• **Mixed Findings.** Programs in this category have varied impacts on particular outcomes. For example, a program that results in significant improvements in reading test scores at post-test but has no impact at a one-year follow-up would be rated as having “mixed findings”. A program that works for one subgroup of participants but not for another subgroup (on a particular outcome) would also receive a “mixed findings” rating.

• **Found to Work.** Programs in this category have positive impacts on particular outcomes.

Findings suggest:

• **Reading achievement gains are possible.** Of the 7 experimentally-evaluated programs targeting reading achievement, 3 had positive impacts, and 4 had mixed impacts. None were ineffective.

• **Math achievement gains are possible, despite the fact that few studies evaluate math performance.** Two out of 3 experimentally-evaluated programs *(Louisiana State Youth Opportunities Unlimited and Building Educated Leaders for Life)* improved math skills, and one *(Summer Training and Education Program)* had mixed impacts in that its impacts dissipated over time. Four more programs delivered math lessons to children, but these programs did not evaluate impacts on math skills.

• **Impacts of summer learning programs on high school completion look less promising.** High school completion was evaluated in four evaluations. One program *(the Louisiana State Youth Opportunities Unlimited)* program increased high school completion rates, two programs *(Upward Bound and the Summer Career Exploration Program)* found no impacts, and a fourth program *(Summer Training and Education Program)* had impacts that dissipated over time.

• **Impacts on employment are similarly lacking.** Only 1 out of 4 experimentally-evaluated programs improved employment outcomes. *Upward Bound* was successful in increasing employment, three years after program completion, whereas *Summer Career Exploration Program, Summer Training and Education Program, and Career Beginnings* were not successful. The lack of impact on this domain for the *Career Beginnings* program could possibly be attributed to its positive impacts on college enrollment.

There is a lack of evidence to evaluate impacts relating to youth development as only one evaluation studied impacts on this outcome; no studies evaluated impacts on health and fitness outcomes.

**Characteristics of Effective Programs (Based on Experimental Studies)**

From the perspective of funders, policy makers, practitioners, and parents, the primary goal of summer learning programs is to prevent learning losses that occur over the summer. But for most children and adolescents, the summer is a time to get a break from school and have fun. Thus, to be effective, summer learning programs balance educational activities with activities typical of summer camps, such as games and sports. In addition, summer learning programs use an accelerated learning approach to teaching that relies more heavily on interactive, hands-on projects and enrichment activities.
Programs that positively impact at least one child and/or adolescent outcome shared several characteristics. These characteristics may also be viewed as effective practices. (For a summary of impacts yielded by experimental studies, see Table 6 in Appendix C). We have listed these practices below:

- **Make learning fun.** Successful summer learning programs supplement academic instruction with enrichment activities that are relevant and engaging to children and youth. Some examples include a debate on current events, use of technology, field trips, hip-hop dance, rap and spoken word, improvisational comedy, art, drama, and storytelling. They also include time for sports and recreational activities to offer students a chance to participate in the physical activities they enjoy.

- **Make learning grounded in a real-world context.** Consistent with an accelerated learning approach, academic concepts are best learned when applying them in a real-world context. For example, by teaching students about the difference between deciduous and coniferous trees by taking them on a hike through the forest.

- **Make learning hands-on.** Didactic lectures may increase knowledge but are not very effective at changing behavior. Interactive forms of instruction such as immersion and experiential learning help to keep students engaged in the material. Engaging children in games, group projects, field trips to historic sites, nature expeditions, and science experiments are all ways in which to make learning more interesting and applied.

- **Content should complement curricular standards.** Successful educational programs integrate learning activities that complement what children are learning during the school year. Therefore, academic content is aligned with statewide, grade-level curricular standards for English Language Arts and Mathematics.

- **Hire experienced, trained teachers to deliver the academic lessons.** All three programs that produced favorable outcomes for reading and math achievement used experienced teachers who had at least a Bachelors degree. Programs resulting in mixed impacts hired college students and provided them with training or, as with the I-START intervention, did not rely on instructors to deliver academic content.

- **Keep class sizes small.** Class sizes of about 10-15 students tended to be most effective for small-group instruction, with one lead teacher and one teaching assistant (or about a 1:5 teacher-to-student ratio). Individualized instruction was also offered, when necessary.

- **Encourage parents to teach children how to become better readers.** This has been done successfully in one program, by providing families with books and lessons on oral reading and comprehension strategies prepared by teachers. A recent study showed that having students read four or five books during the summer months can reduce summer reading loss.
Findings from the *Teach Baltimore* study, which found positive impacts on reading for children who participated in the program at least two summers (480 hours worth of exposure to the program), suggest that longer-term (as well as more intensive) programs may be necessary.

**Table 4: Impacts of Summer Learning Programs**

<table>
<thead>
<tr>
<th>OUTCOME AREA</th>
<th>NOT PROVEN TO WORK</th>
<th>MIXED FINDINGS</th>
<th>FOUND TO WORK</th>
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<tbody>
<tr>
<td><strong>Educational/Cognitive</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Reading achievement</td>
<td>Teach Baltimore did not improve reading achievement in the intent-to-treat, experimental analysis.</td>
<td>Interactive Strategy Trainer for Active Reading and Thinking (i-START) improved answers to text-based questions for students with low prior knowledge of reading strategies and improved answers to bridging-inference questions for students with high prior knowledge of reading strategies.</td>
<td>Building Educated Leaders for Life (BELL) improved reading test scores and increased time spent reading books.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Summer Training and Education Program (STEP) improved reading grades but impacts were not sustained.</td>
<td>Louisiana State Youth Opportunities Unlimited (LSYOU) decreased rate of reading comprehension loss</td>
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<tr>
<td></td>
<td></td>
<td>Voluntary Summer Reading Program The program improved reading achievement for black students only.</td>
<td>Read to Achieve Summer Day Camp improved reading comprehension scores.</td>
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<tr>
<td>Reading Skills</td>
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<tr>
<td>(Decoding, Reading Fluency,</td>
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<tr>
<td>Oral Fluency</td>
<td>Read to Achieve Summer Day Camp improved decoding abilities at post-test and 3-months but impact decayed by the 9 month follow-up.</td>
<td>Voluntary Summer Reading Program improved reading fluency for students owning fewer than 100 books and for students with reading fluency below national norms. No impacts on oral fluency were found.</td>
<td></td>
</tr>
<tr>
<td>Math skills</td>
<td>Summer Training and Education Program (STEP) improved math skills but impacts were not sustained.</td>
<td></td>
<td>Louisiana State Youth Opportunities Unlimited (LSYOU) increased students’ math computation and understanding of concepts and applications.</td>
</tr>
<tr>
<td>Grade Point Average (GPA)</td>
<td>Upward Bound had no impact on GPA rates 3 years after program completion</td>
<td></td>
<td>Building Educated Leaders for Life (BELL) improved math skills.</td>
</tr>
<tr>
<td>High School Completion</td>
<td>Upward Bound had no impact on high school completion rates 3 years after program completion</td>
<td>Summer Training and Education Program (STEP) improved reading grades but impacts were not sustained over time.</td>
<td>Louisiana State Youth Opportunities Unlimited (LSYOU) increased high school completion rates.</td>
</tr>
<tr>
<td>College Preparation</td>
<td>Summer Career Exploration Program (SCEP) had no impact high school graduation rates.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OUTCOME AREA</td>
<td>NOT PROVEN TO WORK</td>
<td>MIXED FINDINGS</td>
<td>FOUND TO WORK</td>
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<tr>
<td><strong>Educational Outcomes</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>College Enrollment</td>
<td></td>
<td>Upward Bound increased college enrollment in students with low expectations of obtaining an education beyond high school.</td>
<td>Career Beginnings increased college enrollment and length in stay in college.</td>
</tr>
<tr>
<td>Engagement in Postsecondary education</td>
<td></td>
<td>Upward Bound students had greater postsecondary attendance; and use of personal counseling, learning skills centers and tutoring services. (3 years after program completion)</td>
<td></td>
</tr>
<tr>
<td><strong>Youth Development</strong></td>
<td></td>
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<tr>
<td>Social Skills</td>
<td>Summer Training and Education Program (STEP) did not improve social behavior.</td>
<td>Summer Training and Education Program (STEP) improved contraceptive knowledge but not level of sexual activity, pregnancy, and contraception use.</td>
<td>Building Educated Leaders for Life (BELL) did not improve social skills.</td>
</tr>
<tr>
<td>Reproductive Health</td>
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<tr>
<td>Career Development</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Career Decision Making</td>
<td></td>
<td>Louisiana State Youth Opportunities Unlimited (LSYOU) improved 4 out of 5 career decision making skills: decisiveness, involvement, orientation, and compromise; but not independence.</td>
<td></td>
</tr>
<tr>
<td>Work-related Attitudes</td>
<td>Summer Career Exploration Program (SCEP) did not improve participants’ attitudes towards work nor their ability to recognize the connection between school and work.</td>
<td>Summer Career Exploration Program (SCEP) increased participants’ confidence in their ability to teach or hold a job that requires reading and writing, but did not increase participants’ confidence about their ability to make a decision about their careers.</td>
<td>Building Educated Leaders for Life (BELL) did not improve academic self-concept.</td>
</tr>
<tr>
<td>Self Efficacy/ Self Concept</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Employment</td>
<td>Summer Career Exploration Program (SCEP) did not impact the frequency and duration of employment, continuation of work once school resumed, or school-year earnings. Summer Training and Education Program (STEP) had no impact on the likelihood of employment. Career Beginnings did not increase employment rates, however this was attributed to increased college enrollment.</td>
<td>Upward Bound increased employment, the number of hours per week worked during college (3 years after program completion)</td>
<td></td>
</tr>
<tr>
<td>Welfare Receipt</td>
<td>Summer Training and Education Program (STEP) No impact on the likelihood of receiving welfare benefits.</td>
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</table>
for students to benefit from summer learning programs. However, this conclusion cannot be drawn without conducting an intent-to-treat, dosage comparison study, which contrasts students who are randomly assigned to programs of varying intensity and/or duration and to a no-treatment control group and analyzes data from all students, regardless their participation.

For economically disadvantaged students, who often miss out on extracurricular activities such as sports and music during the school year, combining academic instruction with youth development and physical fitness activities may be particularly effective.

**Non-experimental Evaluations of Summer Learning Programs**

To discern promising summer learning practices, we identified non-experimental (quasi-experimental, pre-experimental, and qualitative) evaluations of summer learning programs, summarized the outcomes they were associated with, and analyzed whether promising programs shared any characteristics that distinguished them from non-promising programs. The methods we used to identify these programs, the findings of these programs, and a synthesis of their characteristics are summarized below.

**Methods Used to Identify Non-experimental Evaluation Studies**

To locate studies, review articles, meta-analyses, and monographs that would inform the identification of key characteristics associated with summer programs that produce positive impacts, a literature search was conducted in the manner similar to that used for identifying summer programs – by searching the online databases (i.e., LINKS, OST Program Research and Evaluation Database, JSTOR, EBSCO, ED Pubs, ProQuest, and Google Scholar), using keywords. In addition, a list of resources from the funder was reviewed and program contacts were emailed with questions when articles lacked specific information about program implementation. Key words, such as “summer slide”, “achievement gap”, “summer learning loss”, and “expanded learning” were used. Web sites, such as the National Center for Summer Learning’s web site (www.summerlearning.org), the National Clearinghouse of Educational Facilities (www.edfacilities.org/rl/community_use.cfm), the National Institute on Out-of-School Time (www.niost.org), and the U.S. Department of Education (www.ed.gov) were also consulted for resources on best practices for summer learning programs. To inform the identification of practices that characterize effective and promising programs, programs were selected using the following criteria: (a) they were evaluated using an experimental, quasi-experimental, or non-experimental design; (b) they had been selected as a promising program by field experts; (c) they were delivered in the summer and targeted educational outcomes; and (d) they included a summer component which was evaluated separately from the school-year program.

**Findings of Programs with Non-Experimental Evaluations**

Thirty-four summer learning programs with less rigorous evaluations and/or informal reports were identified. Only 13 out of 34 programs had at least one published study that used a non-experimental research design (a quasi-experimental, pre-experimental, or qualitative design). The remainder were identified because they were noted in a report, nominated for an award, or received an award for being a promising summer learning program. While these less rigorous evaluations cannot definitively address causality, we share these findings to provide a more comprehensive review of summer learning programs and to suggest directions for future evaluations.
Findings from these 13 non-experimental studies suggest:

- **Improvements in reading were likely to occur.** Out of the six programs that evaluated improvement in reading skills, five were positive and one was mixed. The program with mixed findings, *Horizon*, found that reading scores increased only for students who lagged behind in reading by one-half of a grade (by a median increase of three months).

- **Non-experimental program evaluations found positive associations with career development and college preparation.** According to non-experimental reports, 4 out of 4 programs evaluating career development and college preparation outcomes found positive associations. Associations with the following outcomes were identified: (a) increased career planning and exploration efficacy (*Career Horizons*); (b) increased ability to select careers that match interests (*Career Horizons*); (c) increased college preparation skills (*Gain the Edge*); (d) increased comfort with the use of technology (*InfoLink*); (e) improved technical skills (*InfoLink*); and an increased interest in pursuing a career in science, math, engineering, or technology (*RISE*).

- **Two out of two non-experimental studies that evaluated math outcomes found improvements in math.** Quasi-experimental evaluations of *Chicago Public Schools Summer Bridge Program* and the *Voyager Reading Intervention Program*, found improvements on math tests. In the *Summer Bridge* program, improvements varied according to the age and risk status of the student. Older students made larger gains than younger students. Low-risk sixth graders experienced larger gains than moderate- and high-risk sixth graders in reading and math. On the other hand, high-risk third graders made more progress in reading than lower risk third graders.

- **Associations with youth development outcomes, where evaluated, are not consistent.** Three studies (two quasi-experimental and one qualitative) reported varied youth development outcomes. Two programs had mixed findings and a third program has a positive finding. *Ascend Summer Youth Program* had mixed findings in that it increased self-efficacy for younger children more than for older children. The *Grand Slam Program* also had mixed findings, because positive associations with compliance and self control were only found for youth “who were less likely to value the program for learning new things”. Finally, the *RISE (Raising Interest in Science and Engineering) Program* was associated with girls deciding to pursue a career in science, math, engineering, or technology.

Some programs found positive associations with concrete skills such as learning how to travel by metro and learning how to use a debit account (*Ascend*) and others found increases for more abstract concepts such as an interest in taking algebra and geometry courses, a desire to become more fluent in technology, and an interest in pursuing a career in technology (*Build IT*).

**Characteristics of Promising Summer Learning Programs**

Not surprisingly, studies using quasi-experimental, pre-experimental, and qualitative methods were found to produce more positive associations, compared with those using experimental methods. Due to the limited variation with respect to the outcomes of these studies (for example, 4 out of 4 programs were associated with gains in college preparation and career development, 2 out of 2 programs were associated with improvements in math, and five out of six programs were
associated with improvements in reading), our ability to identify promising practices is greatly diminished. In areas, such as youth development, with more varied impacts, there were too few studies to identify why one program worked and why others resulted in mixed findings. Finally, non-experimental studies lack the level of rigor necessary for extracting convincing evidence to support or deny the effectiveness of one intervention strategy over another.

**Characteristics of Effective and Promising Programs Based on All Evaluations, Research Studies, and Reviews**

In 2006, the *National Center for Summer Learning* xxxix and the *Harvard Family Research Project* xxx each issued reports that outlined practices, challenges, and strategies that effective and promising summer learning programs share in common. Both emphasized the early formation of collaborative partnerships with key stakeholders (e.g., community-based organizations, local- and state- government entities), to inform program planning and design. If formed effectively, partnerships benefit all involved and enable stakeholders to reach their goals more efficiently and effectively. Also, both reports highlighted the importance of designing programs with specific goals and objectives, recruiting qualified staff, and providing them with high-quality training and staff development.

To boost participation rates and ensure program success, the *Harvard Family Research Project* recommends that programs develop strong, positive connections with youth participants and their families and form ongoing, mutually supportive relationships with schools.xxxi In addition, a proactive approach to summer learning could incorporate a variety of fun and engaging program activities, complement what is being learned during the academic year, and hold students to high standards with an intentional focus on accelerated learning.

A report by the *National Center for Summer Learning*xxxii notes that successful summer learning programs gather evaluation data in a rigorous and ongoing way and use these data to inform program implementation and development. These programs also maintain a clear focus on sustainability and cost-effectiveness throughout program planning and implementation.

This White Paper seeks to build upon the set of practices identified in previous reviews in two ways. First, it draws from the best available research on summer learning programs and other out-of-school time programs, to identify practices that promote educational/cognitive, youth development, career development, and health and fitness outcomes. And second, it highlights program practices that work best for involving economically disadvantaged youth and their families.

**What Do Experimental and Non-Experimental Studies of Summer Learning Programs Tell Us?**

Effective and promising summer learning programs for disadvantaged youth shared three critical characteristics.

- **They are affordable and accessible.** Programs generally offered their programs free of cost. Most were offered over a full day, or approximately 6 to 8 hours (providing a free source of child care for families). During family events, parents were offered child care
on site. Transportation to and from the program location was generally available to participants. In addition, programs offered breakfast and lunch to participants.xxxiii

- **They involve parents.** Low-income families are less likely than higher-income families to send their children to summer programs. Aside from the fact that many programs are offered at a cost, many parents may believe their children would benefit more from summer school than from summer learning programs. Other parents may be reluctant to send their children to a program they are unfamiliar with where they do not know the staff and would rather have family members care for their children during the day.

Programs that involve parents early on (e.g., as volunteers or as decision makers) may be more likely to enroll children with lower income backgrounds. In addition, when parents are invited to participate in program activities, such as performances and field trips, they may be more likely to keep children in the program. Although evaluations to date have not tested whether these strategies increase the participation rates of low-income children and youth, we know that involving parents in programs is likely to benefit participants.

- **They involve the community.** Making sure that information about summer learning programs is accessible in the community – at schools, community centers, and public libraries, for instance – is one way to increase awareness of these programs among parents and children. School and community events could be held to inform community members about the program and community volunteers may interact with family members to increase the visibility and credibility of the program. In addition, community partners can offer resources such as money, volunteers, technical assistance, and in-kind contributions. In sum, forming long-term, community partnerships are critical to insuring and sustaining program success.

To augment these points, we share additional findings from a review of the larger literature on out-of-school time programs in which Moore (2008) identified several other promising practices (see Appendix D).

**What Do Experimental Studies of School-Year, Out-of-School Time Programs Tell Us About Improving Youth Development Outcomes?**

Although many summer learning programs integrate activities to promote positive youth development, few evaluations to date have examined impacts on youth development outcomes. Thus, to identify practices associated with improved youth development outcomes, this section draws from experimental studies of effective, school-year, out-of-school time programs.

- **Improve social problem solving** (*social cognitive*) **skills.** Skills training programs are best suited for children, since they are developing abstract thinking skills and need guidance when it comes to social problem solving.xxxiv

- **Promote character development.** Infusing the values of fairness, respect, and nonviolence into school routines appears to decrease the display of negative classroom behavior in children.xxxv
- **Promote life skills**. This strategy is particularly effective with adolescents, who must become better decision makers as they obtain greater autonomy from their parents.

- **Foster positive relationships with caring adults**. This strategy has proven effective with both children and adolescents when it comes to preventing and deterring problem behaviors, such as aggression and drug and alcohol use, and promoting academic success.

- **Foster relationships with pro-social peers**. Research has found that putting a number of high-risk children or youth together in one group is an ineffective strategy that is likely to produce deleterious effects – worsening rather than improving behavior. Intervention strategies that are organized around positive interactions with pro-social (and preferably well-liked) peers have had positive impacts. For example, interventions that use peer leaders who are nominated by teachers and peers and interventions that involve interactions between small groups of heterogeneous children have been found to be successful.

- **Reward good behavior**. Interventions that reward good behavior, whether they involve teachers rewarding good behavior in the classroom or parents rewarding good behavior at home, have higher success rates.

- **Support the development of effective parenting skills**. This strategy has proven effective with both children and adolescents when it comes to preventing and deterring problem behaviors.

- **For disadvantaged and high-risk youth, intensive multi-element programs may be needed**. With a few exceptions, children and adolescents who are exposed to higher levels of risk are more likely to benefit from longer-term interventions targeting multiple social domains. This might involve combining a summer program with a school-year program.

Of course, for these strategies to be successful, they must be applied in tandem with the general practices of effective summer learning programs highlighted above. Research indicates that poor implementation, lack of accessibility, poor recruitment and retention, staffing issues, and a lack of organizational support can undermine any program, no matter how much evaluation evidence there is for its effectiveness under optimal conditions.

**What Do Experimental Studies of School-Year, Out-of-School Time Programs Tell Us About Improving Health and Fitness Outcomes?**

During the summer months, children (especially minority and overweight children) are vulnerable to excessive weight gain due to inactivity and limited access to healthy meals and snacks. Due to the lack of summer learning programs measuring impacts on health and fitness outcomes, we could not identify effective practices and approaches in summer learning. Thus, listed below are effective practices identified from our recent synthesis of experimental, intent-to-treat studies (identified in the LINKS database) with positive impacts on health and fitness.
- **Hire professionally-trained staff.** Having a staff with training in physical education and nutrition is important due to the level of sensitivity and expertise needed for working with children and youth who are experiencing weight problems.

- **Involve parents as role models.** Using parents as role models can maximize the short-term impact of the program, as well as increase the likelihood that new exercise and nutrition routines learned over the summer will be maintained during the school year.

- **Teach self-regulatory skills.** Examples of self-regulatory nutrition skill-building include teaching children how to prepare healthy snacks and how to ask for fruits and vegetables at fast food restaurants. Helping participants identify stimuli that trigger unhealthy eating habits another self-regulation strategy.

- **Support the development of healthy exercise routines.** Teaching children and adolescents how to incorporate exercise into their daily lives and on how to make physical activity fun and personalized is critical to increasing physical activity.

Using these strategies in combination with each other is particularly likely to produce positive impacts on weight loss, exercise, and nutrition. Moreover, a three-pronged prevention approach that combines health and fitness activities with youth development and summer learning activities might help reduce risk of academic failure, obesity, drug use, and delinquency in children and youth from low-income families. To date, few, if any, summer programs have applied this approach. However, we caution against conducting a summer program with the expectation that it will improve youth development outcomes, unless children continue to participate during the school year. Evidence from previous studies indicates that behavioral improvement is unlikely to result from short-term social interventions that are implemented over a span of only few weeks or a few months.

**Knowledge gaps**

This review of the literature on summer learning programs revealed several areas of research and evaluation that warrant further investigation.

- **Understanding how to reach low-income populations.** We know that economically-disadvantaged children are less likely to participate in summer programs than in school-year, out-of-school time programs, but we do not have a clear idea as to why. Understanding the factors that limit summer program participation would enable communities to increase participation rates among their youth.

- **Assessing the impacts of dosage and duration.** We could not discern from these studies whether more intensive participation or a longer duration of exposure to the program would improve program benefits. Nine out of 10 experimentally-evaluated studies with mixed or positive impacts were delivered over a period of at least five weeks, for 6 to 8 hours per day. Additional research is needed to examine the impacts of implementation (e.g., interventions of different durations and dosages.). In addition, studies that examine summer learning versus school-year plus summer programs are needed.
The need to widen the scope of the evaluation.
- **Mathematics.** Only 3 out of the 7 experimentally-evaluated programs that targeted math skills evaluated whether students made achievement gains in math (*Building Educated Leaders for Life, Louisiana State Youth Opportunities Unlimited, and Summer Training and Education Program*).
- **Youth development.** Only 1 out of 4 experimentally-evaluated programs that target youth development outcomes (*the Summer Training and Education Program*) evaluated these outcomes.
- **Science and technology.** None of the experimentally-evaluated programs that integrated science and technology evaluated new knowledge gained in these areas.
- **Health and Fitness.** Although almost all experimentally-evaluated programs included physical activities and sports, none of the studies evaluated this domain.

Knowing whether summer learning programs are able to improve math skills, decrease children’s weight gain over the summer, or improve social skills, for instance, would be valuable information to parents, teachers, administrators, program providers, and policymakers.

Few programs have been adapted for various ethnic, gender, and geographic subgroups. Of all programs included in this review, only one program, a program teaching girls how to use and become more confident using technology, was gender-specific. No culturally-adapted programs were identified, and only a few programs worked specifically with children and youth from rural settings. One program, the *Voluntary Summer Reading Program*, was effective for black youth but not for any other ethnic or racial group.

**Discussion**
Children and youth who reside in economically disadvantaged households and reside in low-resource, urban neighborhoods are more likely to lose ground in math and reading over the summer than their middle- and higher-class peers. This achievement gap widens as children grow older, creating a social inequity that can be prevented. Summer learning programs can be an important strategy for narrowing this gap.

This paper has outlined findings from a wide range of summer learning programs and highlighted common and outcome-specific characteristics of promising and effective programs. The paper concludes by offering recommendations for practice and recommendations for research and evaluation. These recommendations might be used to guide the funders and policymakers in decisions about how and where to allocate resources to help reduce summer learning loss.

**Recommendations for Practice**
Four approaches might be used to improve how schools and communities address summer learning loss. First, effective school-year programs can be extended to serve children and youth year-round. Second, effective summer learning programs could be identified and more widely disseminated. Third, existing summer learning programs could be improved, by applying what we know from evaluation studies, basic research, and wisdom from the field. Fourth, extended-
year or year-round schools could be established. We have outlined strategies for each of these approaches below.

**Approach A: Identify Effective Summer Learning Programs**

With the limited number of experimental studies, identifying effective summer learning programs, especially ones that impact academic outcomes, is a challenging task. This review identified only 3 out of the 7 programs that evaluated impacts on reading that improve reading achievement:

- **Louisiana Summer Youth Opportunities Unlimited (LSYOU)** is a 6-8 week, residential, dropout prevention program for at-risk, 14- to 16-year-old students designed to improve academic achievement, increase high school completion rates, and improve college enrollment. The random assignment study evaluated the summer program and found it to be effective at post-test. We should add a caveat that a follow-up study has not yet been done. Therefore, evidence for the long-term benefits for this program is inconclusive.

- **Building Educated Leaders for Life (B.E.L.L)** is a 6-week academic enrichment program that seeks to prevent summer learning loss among low-income, elementary school students of color.

- **Read to Achieve** is a 7-week literacy promotion day camp for first-grade students from low-income families. Two hours of camp time each day are devoted to literacy activities, and the remainder of each day was devoted to typical camp activities.

In addition, only 2 out of the 3 experimentally-evaluated programs that evaluated impacts on math, **Building Educated Leaders for Life** and **Louisiana State Youth Opportunities Unlimited**, improve math skills.

Current and past funding sources for these programs, as well as for the remaining seven programs are listed in Appendix E.

**Approach B: Extend Effective School-Year Programs**

The new Administration recognizes the need for expanded learning time. Extending school-year programs through the summer is one strategy for helping the most at-risk children succeed in school. The new sociopolitical context may make it possible to support the extension of effective, school-year, out-of-school time programs into the summer months. The ability to provide services over the summer months fills an unmet need for out-of-school time programs that seek to enhance positive relationships with caring adults.

For example, extending after-school mentoring programs into the summer would allow positive mentor-mentee relationships, which take time to develop, to mature and decrease the chances that the mentoring relationship would end prematurely, before children are able to reap the benefits of this relationship, such as in increased school engagement and behavioral improvement. Extending programs like the **Linking the Interests of Families and Teachers (LIFT)** program, which seek to build positive teacher-parent relationships, into the summer would also be beneficial. Extending school-year programs that positively impact reading outcomes – such as **Reading One to One** and **Schools and Families Educating Children (SAFEChildren)** – might also help to reduce summer learning loss.
Interestingly, all effective, experimentally-evaluated programs included in this review offered school-year components. For example, during the school year:

- **Building Educated Leaders for Life** offers an afterschool program – delivered 3 hours per day for 30 weeks – focused on improving math and reading skills, academic self concept, and social skills;

- **Career Beginnings** offers: (a) monthly academic advising; (b) career counseling; (c) information about post-secondary alternatives & financial aid; (d) 12 months of mentoring; and (e) workshops in life skills, diversity, and pregnancy prevention;

- **Louisiana State Youth Opportunities Unlimited** offers tutoring, exit test preparation, mentoring, personal and family counseling, and weekend retreats to the LSU campus;

- **Upward Bound** offers tutoring services.

Although the summer components of these programs were evaluated separately, offering year-round, youth development and learning opportunities to students makes sense for several reasons. Children and adolescents, especially children from low-income backgrounds, need youth development opportunities over the summer as much, or perhaps more, than they do over the school year, when there is more structure and routine in their lives. Although policymakers and funders could remedy this by funding summer learning programs that address youth development, this could be deleterious rather than effective. What we have learned from evaluating effective youth development programs is that programs that intervene for a short period of time are less likely to produce behavioral change. Social interventions can take more time than many medical or academic interventions and require a great degree of investment. Indeed, relationships that are truncated can be harmful to children. Thus, extending school-year, out-of-school time programs with an academic focus into the summer would appear to be a very good idea.

**Approach C: Improve Existing Summer Learning Programs**

Although preliminary research suggests that summer learning programs can yield benefits for children and youth, more can be done to improve existing programs. Below, we list several recommendations we have gleaned from the research, for improving summer learning programs:

- **Increase participation among at-risk children and adolescents.** This can be achieved by making programs affordable (e.g., by subsidizing them or waiving fees where necessary) making them accessible (e.g., offering transportation to children and youth who need it), involving parents, offering incentives to both children and parents, and asking community-based organizations for assistance with recruitment. Increasing the ability of low-income families to send their children to summer learning programs can help to reduce the stress of finding child care over the summer months and reduce the burden placed on extended family members.

- **Differentiate summer learning from school-year learning.** Unlike school-based instruction, which is often lecture-based, summer learning activities should be interactive, fun, hands-on, relate to real-world experiences, and incorporate cultural enrichment as well as group activities to keep students engaged and interested. Moreover, academic
Differentiate summer learning from summer camp. Although summer learning programs may often be referred to as camps, they are not the same as most recreational summer camps. The primary reason is that the primary goal of summer learning programs is academic improvement and most activities are carried out with this goal in mind.

The same principles that guide effective out-of-school time programs apply to summer learning programs. Thus, summer learning programs should:

- Form collaborative partnerships with key stakeholders;
- Involve families and communities;
- Utilize well-trained, experienced staff;
- Offer ongoing staff development;
- Plan programs deliberately;
- Make programs affordable and accessible;
- Promote positive relationships with caring adults;
- Provide positive role models;
- Reward good behavior;
- Teach social cognitive skills, life skills, and character development;
- Make learning fun and hands on;
- Intervene more intensively with at-risk students; and
- Evaluate programs continually to inform design and implementation.

Integrate non-academic, physical, recreational, and cultural enrichment activities. Since summer learning programs are generally full-day programs, participants need physical exercise and other non-academic activities like photography and drama, built into the day.

Integrate non-academic, physical, recreational, and cultural enrichment activities. Since summer learning programs are generally full-day programs, participants need physical exercise and other non-academic activities like photography and drama, built into the day.

Hire trained, experienced teachers for academic components. Limited evidence indicates that academic instruction should be conducted by professional, trained, experienced teachers. Other activities may be staffed by community volunteers. Students from organizations like AmeriCorps can serve as Teaching Assistants.

Utilize settings that are safe and inspire learning. The ideal location for summer learning programs should be safe and inspire learning. College campuses and rural settings appear to be good options. Alternatively, any recommend the use of the schools that students attend during the school year, viewing schools as “community learning centers” that should be open to the community year-round.

Approach D: Establishing Extended-Year or Year-Round Schools

This approach is beginning to grow in popularity, but states are still a long way away from executing this approach. Some school districts, like Cincinnati Public Schools, have added a “fifth quarter” to the school year; students attend school over 40 weeks instead of the traditional 36 weeks. Other school districts are entertaining the possibility of year-round schools. School
would start in August and every 9 weeks there would be a 2-week intercession until the end of June; summer vacation would then be 5 weeks instead of 10 weeks in duration. This approach would offer 9 more weeks of classes than what is offered in the typical school year. Such efforts often explicitly work to provide hands-on learning experiences and an array of engaging as well as educational activities.

Recommendations for Research and Evaluation

- **Expand implementation research on program participation.** Few evaluation studies have collected data on attendance or looked at participation patterns and trends.

- **Expand research on program implementation.** Evaluation data should be collected to examine whether program implementation characteristics impact program outcomes.

- **Expand the range of outcomes evaluated.** Few evaluation studies measured youth development outcomes, and none of the programs reviewed examined impacts on how summer learning programs impact school engagement, curiosity, and love of learning – attitudes which may be essential to achieve sustained gains in academic performance. Moreover, data should be collected from multiple sources (parent and teacher) – not just the child.

- **Expand the range of research designs employed by evaluation studies.** Given the lack of random assignment, intent-to-treat studies with long-term follow ups, identifying effective programs is challenging at best. Moreover, studies comparing modified versions of interventions – those of different durations and with fewer components perhaps– are needed in order to ensure that programs are cost-effective and sustainable.

- **Replicate programs with different populations and test moderating effects for different subgroups.** For instance, does a summer learning program that works in Iowa with rural white children also work with Latino children in Brooklyn? Among the children who participated in this program, did the program result in similar gains between girls and boys, white children and black children? Are some interventions more effective with younger adolescents than they are for older adolescents?

Conclusion

There is a dearth of experimental research to measure the impacts of summer learning programs on children and youth. At the same time, some preliminary evidence exists that suggests that good summer learning programs can improve the educational outcomes of economically disadvantaged students. Strategies for preventing summer learning loss include: (a) extending effective school-year, out-of-school time programs that have academic components through the summer; (b) identifying effective summer learning programs and approaches; (c) improving existing programs by incorporating characteristics of effective and promising programs; and (d) developing models of extended-year or year-round schooling.
The literature reviewed, though limited, indicates that programs leading to academic improvement include the following characteristics: making learning fun, interactive, and hands-on, delivering academic content that complements curricular standards, hiring experienced and trained teachers, keeping class sizes small, and encouraging parents to teach children how to become better readers. For disadvantaged students, making programs affordable and accessible, involving parents, and involving the community appear to be aligned with best practices.

Our analysis of nationally-representative data on summer program participation found that children and youth who would stand to benefit the most from participating in summer programs (i.e., children and youth who are economically disadvantaged, have low school engagement, and/or exhibit problem behavior) participate the least often. For that reason, it is important to expand and improve summer learning program offerings, reduce barriers to summer program participation, and increase supports for low-income parents to send their children to these programs.
Bibliography of Summer Learning and Out-of-School Time Resources


### Appendix A

#### Table 1: Sociodemographic Differences between Participants and Non-Participants

<table>
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<th>Total N= 684 (children ages 6-11)</th>
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<td>25% (68)</td>
<td>75% (273)</td>
<td>***</td>
<td>ns</td>
</tr>
<tr>
<td>Female</td>
<td>23% (87)</td>
<td>77% (256)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>25% (29)</td>
<td>75% (84)</td>
<td>***</td>
<td>ns</td>
</tr>
<tr>
<td>Other</td>
<td>22% (4)</td>
<td>78% (16)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>24% (122)</td>
<td>76% (429)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poverty</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below 200% of poverty line</td>
<td>18% (55)</td>
<td>82% (269)</td>
<td>***</td>
<td>*</td>
</tr>
<tr>
<td>200% or above of poverty line</td>
<td>29% (100)</td>
<td>71% (260)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family Structure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single parent household</td>
<td>21% (47)</td>
<td>79% (149)</td>
<td>***</td>
<td>ns</td>
</tr>
<tr>
<td>Household with 2 bio/adoptive parents</td>
<td>28% (91)</td>
<td>72% (300)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Household with 2 parents (one is stepparent)</td>
<td>14% (10)</td>
<td>86% (58)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lives with no parents</td>
<td>10% (7)</td>
<td>90% (21)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* p<.05 and ***p<.001= statistically significant; ns = not statistically significant.

Note: Covariates include gender, race, poverty, and family structure.

#### Table 2: School and Out-of-School Time Involvement Differences between Participants and Non-Participants

<table>
<thead>
<tr>
<th>Total N= 684 (children ages 6-11)</th>
<th>Percent of Participants weighted % (n)</th>
<th>Percent of Non-participants weighted % (n)</th>
<th>Significance before adding covariates</th>
<th>Significance after adding covariates</th>
</tr>
</thead>
<tbody>
<tr>
<td>School engagement</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school engagement</td>
<td>30% (80)</td>
<td>70% (225)</td>
<td>***</td>
<td>ns</td>
</tr>
<tr>
<td>Low school engagement</td>
<td>15% (20)</td>
<td>85% (78)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social clubs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participated in clubs last year</td>
<td>29% (93)</td>
<td>71% (250)</td>
<td>***</td>
<td>*</td>
</tr>
<tr>
<td>Did not participate in clubs last year</td>
<td>20% (59)</td>
<td>80% (273)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extracurricular Activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Involved in 3 or more extracurricular activities</td>
<td>27% (32 )</td>
<td>73% (54 )</td>
<td>***</td>
<td>ns</td>
</tr>
<tr>
<td>Not involved in any activities</td>
<td>15% (9)</td>
<td>85% (104)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p<.05 and ***p<.001= statistically significant; ns = not statistically significant.

Note: Covariates include gender, race, poverty, and family structure.
Table 3: Social and Behavioral Differences between Participants and Non-Participants

<table>
<thead>
<tr>
<th>Social Competence</th>
<th>Percent of Participants weighted % (n)</th>
<th>Percent of Non-participants weighted % (n)</th>
<th>Significance before adding covariates</th>
<th>Significance after adding covariates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acts too young for his or her age</td>
<td>14% (7)</td>
<td>86% (29)</td>
<td>***</td>
<td>ns</td>
</tr>
<tr>
<td>Acts appropriately for his or her age</td>
<td>26% (145)</td>
<td>74% (494)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Behavior</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has high behavior problem scores</td>
<td>13% (13)</td>
<td>87% (39)</td>
<td>***</td>
<td>ns</td>
</tr>
<tr>
<td>Has low behavior problem scores</td>
<td>18% (46)</td>
<td>82% (156)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer Relations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doesn't get along with other kids</td>
<td>12% (4)</td>
<td>88% (18)</td>
<td>***</td>
<td>ns</td>
</tr>
<tr>
<td>Gets along with other kids</td>
<td>25% (149)</td>
<td>75% (504)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fair or poor health</td>
<td>55% (4)</td>
<td>45% (26)</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Good, Very Good or Excellent Health</td>
<td>23% (151)</td>
<td>77% (503)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p<.05 and ***p<.001 = statistically significant; ns = not statistically significant.

Note: Covariates include gender, race, poverty, and family structure.
### Appendix B

Table 5: Summary of Evaluated Programs (N=44)

<table>
<thead>
<tr>
<th>Educational/ Cognitive</th>
<th>Non-experimental</th>
<th>Experimental</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Aim High*</td>
<td>Interactive Strategy Trainer for Active Reading and Thinking (i-Start)</td>
</tr>
<tr>
<td></td>
<td>AfterSchool Matters</td>
<td>Read to Achieve Summer Day Camp</td>
</tr>
<tr>
<td></td>
<td>Ascend Summer Youth Program</td>
<td>Summer Training and Education Program (STEP)</td>
</tr>
<tr>
<td></td>
<td>Beyond the Bell</td>
<td>Teach Baltimore</td>
</tr>
<tr>
<td></td>
<td>Bridges to a Brighter Future*</td>
<td>Voluntary Summer Reading Program</td>
</tr>
<tr>
<td></td>
<td>Build IT</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chicago Public Schools Summer Bridge Program</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Children Defense Fund Freedom Schools Initiative*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Discovery Creek Summer Nature Adventure Programs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Energy Express*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gain the Edge</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Girls Creating Games</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Grand Slam</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Higher Achievement Program Summer Academy*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Horizons</td>
<td></td>
</tr>
<tr>
<td></td>
<td>KindergARTen Camp</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Morry’s Camp</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reading Reaps Rewards (R3) -Philadelphia Reads*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Redhound Enrichment Program</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RISE (Raising Interest in Science and Engineering )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Summer Extravaganza*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Summer Literacy Program</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Summer READS SWARM (Science, Writing, Art, Reading, and Music) program</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Summer Scholars</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Summerbridge Pittsburgh*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Super Summer Day Camp</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SuperKids Day Camp*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Voyager Summer Reading Intervention Program</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Career Development</th>
<th>Career Horizons</th>
<th>Career Beginnings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>InfoLink</td>
<td>Summer Career Exploration Program</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Multi-element</th>
<th>Centro Nia*</th>
<th>Building Educated Leaders for Life (BELL)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Oceanography Camp for Girls</td>
<td>Accelerated Learning Summer Program*</td>
</tr>
<tr>
<td></td>
<td>Reading and Enrichment Academy for Learning (REAL Kids) - Harlem RBI*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trail Blazers Summer Program*</td>
<td>Louisiana State Youth Opportunities Unlimited (LSYOU) program</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Upward Bound</td>
</tr>
</tbody>
</table>

*Note: Starred (*) programs were awarded the Summer Learning Award by the National Center for Summer Learning at Johns Hopkins University, School of Education.*
### Appendix C

**Table 6: Experimentally-Evaluated Programs (Effective for Children)**

<table>
<thead>
<tr>
<th></th>
<th>Read to Achieve Summer Literacy Day Camp</th>
<th>Building Educated Leaders for Life (BELL) Accelerated Learning Summer Program</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Program Goals</strong></td>
<td>To improve literacy skills – reading comprehension, decoding, and vocabulary.</td>
<td>To improve the following measures: (a) academic performance; (b) self concept; and (c) social skills.</td>
</tr>
<tr>
<td><strong>Target Population</strong></td>
<td>Low-income, children of color exiting 1st grade (aged 6-7)</td>
<td>Urban, low-income or low-performing elementary school children of color (Grades 1-7)</td>
</tr>
<tr>
<td><strong>Duration and Dosage</strong></td>
<td>7 weeks, 5 days per week, from 8 am to 5 pm (315 hours)</td>
<td>6 weeks, 5 days per week, 8 hours per day (240 hours)</td>
</tr>
<tr>
<td><strong>Intervention Description</strong></td>
<td>Two hours per day devoted to literacy activities that teach: 1) decoding, 2) comprehension, 3) vocabulary, and 4) writing skills using the Open Court curriculum. The rest of the day included summer camp activities, such as swimming, organized sports, art, dance and music. Participants go on weekly field trips.</td>
<td>Intervention components are: (a) academic instruction: two hours of literacy and one hour of math per day, four days/week; (b) parent involvement and participation; (c) two hours per day of enrichment activities and physical education; community service projects; and group mentoring by community leaders.</td>
</tr>
</tbody>
</table>
| **Impacts**                          | • Reading comprehension scores 41% better at 3-, 39% better at 6-, and 18% better at 9-month follow ups than the control group.  
• Decoding abilities better at post-test and the 3-month follow-up, but no impacts were found at the 9-month follow-up. | • Improved reading and math skills  
• Improved reading test scores  
• Increased time spent reading books  
• Increased parental involvement  
• Did not improve academic self concept  
• Did not improve social skills |
<table>
<thead>
<tr>
<th></th>
<th>Career Beginnings</th>
<th>Upward Bound</th>
<th>Louisiana State Youth Opportunities Unlimited (LSYOU) program</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reference</strong></td>
<td>Cave &amp; Quint (1990)</td>
<td>Myers, Olsen, Seftor, Young, &amp; Tuttle (2004); Myers, &amp; Schrim (1999)</td>
<td>Shapiro et al. (1986)</td>
</tr>
<tr>
<td><strong>Program Goals</strong></td>
<td>To improve the educational and occupational potential of low-income high school</td>
<td>Help prepare disadvantaged high school students for college</td>
<td>To improve academic achievement, career maturity, intention</td>
</tr>
<tr>
<td></td>
<td>students.</td>
<td></td>
<td>to remain in school during the current year, and intention</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>to graduate.</td>
</tr>
<tr>
<td><strong>Target Population</strong></td>
<td>Low-income, average-performing high school students who were in their junior year.</td>
<td>High school students aged 13 to 19 (who have completed the eighth grade from low-income families or who would be the first in their family to attend college.</td>
<td>Urban, at-risk, low-income, low-achieving students aged 14-16, who are at high risk for dropping out of school.</td>
</tr>
<tr>
<td><strong>Duration and Dosage</strong></td>
<td>The intervention was implemented across 24 sites, so duration and dosage varied.</td>
<td>Up to 4 years. Meets regularly during the summer and school year. The average student attends over 100 sessions of academic and 70 sessions of nonacademic activities.</td>
<td>6-8 weeks, 7 days per week, residential (336-448 hours).</td>
</tr>
<tr>
<td><strong>Intervention Description</strong></td>
<td>Intervention includes a paid work/study program, job training, workshops, and courses (in Algebra, English, Geometry, Public Speaking, Reading and Life Skills). Students go on field trips to local businesses and agencies and have access to positive adult mentors in the community.</td>
<td>This summer residential program requires students to take college prep classes in math, laboratory science, literature, composition, and foreign language and other subjects are optional. They also receive academic, financial, or personal counseling, tutorial services, mentoring, participate in academic programs and cultural events. They also receive other college preparatory assistance. Finally, they participate in work study positions.</td>
<td>Intervention components are: (a) academic instruction: two hours of literacy and two hours of math per day; (b) 20-hour/week job placement; (c) counseling; and (d) recreational activities.</td>
</tr>
</tbody>
</table>
| **Impacts**         | • Increased college enrollment (53% percent of experimental versus 49 percent of control group; p<.05) | • Students with low educational expectations were more likely to attend a 4-year college and attend postsecondary school.  
• Increased college employment, number of hours per week worked during college, receipt of personal counseling, attendance at skills centers, and use of tutoring. | • Decreased the rate of reading comprehension loss  
• Increased students’ math computation, concepts and applications  
• Increased high school completion |
Table 7: Experimentally-Evaluated Programs with Mixed Findings

<table>
<thead>
<tr>
<th>Reference</th>
<th>Program Goals</th>
<th>Target Population</th>
<th>Duration and Dosage</th>
<th>Intervention Description</th>
<th>Impacts</th>
</tr>
</thead>
</table>
| McClanahan, Sipe, & Smith (2004) | Demonstrate the importance of academic achievement to achieve career success | High school students (who completed Grades 10 -12). The program is open to teenagers who come from families with incomes less than 150% of the federal poverty level. | Student work 25 hours per week, for 6 weeks (150 hours). Students may participate in the program for up to three summers. | All students undergo pre-employment training: consisting of 1) “soft skills”; 2) interview skills; 3) career choice; 4) maintain a job; 5) demeanor; 6) job readiness; and 7) work place behavior. Student’s 25-hour per week work placement is matched with their interests. College monitors serve as role models and provide personal and academic support for students. Remediation in reading and math skills using computer assisted instruction for part of the lesson (90 hours each summer over two summers), part-time summer work (80 hours each summer over two summers), life skills (18 hours each summer, two mornings per week) teaching issues such as sexual behavior, drug use, careers, and community involvement. i-START is instructional software that can be delivered as part of a summer learning program. It uses animated agents to teach reading strategies for understanding science text. Short tests are given after each strategy has been taught. The software provides students with feedback on the type and quality of their explanations. | • Increased enrollment college-track curricula and visits to a College Center (college prep)  
• Increased confidence in ability to teach or hold a job that requires reading and writing.  
• No significant results were found for: 1) class effort; 2) types of courses elected in high school; 3) the likelihood to graduate, 4) the likelihood of taking college entrance exam; 5) attitude towards work; 6) feeling able to make career decisions and reach goals; 7) school year earnings; 8) frequency and duration of employment; and similar outcomes.  
• At post-test, program increased reading and math grades and contraceptive knowledge, but these impacts were not sustained.  
• No short- or long-term impact on sexual activity, pregnancy, & contraception use, nor on rates of high school dropout, college attendance, employment, and welfare receipt.  
• Increased comprehension of text-based questions for teens with low prior knowledge of reading strategies  
• Increased comprehension of bridging—infERENCE questions for teens with high prior knowledge of reading strategies. |
| Walker & Vilella-Velez (1992a; 1992b) | To minimize academic loss, and prevent high school dropout and pregnancy | Low-income upcoming eighth and ninth graders of color performing below grade level. | 208-228 hours over two summers. Remediation-90 hrs; PT work-90 hrs; Life Skills-18 hrs; & in-school support-10-30 hrs. | Two sessions on two consecutive days (Mean=104 minutes) –53 minutes of which are spent on practice. | • At post-test, program increased reading and math grades and contraceptive knowledge, but these impacts were not sustained.  
• No short- or long-term impact on sexual activity, pregnancy, & contraception use, nor on rates of high school dropout, college attendance, employment, and welfare receipt.  
• Increased comprehension of text-based questions for teens with low prior knowledge of reading strategies  
• Increased comprehension of bridging—infERENCE questions for teens with high prior knowledge of reading strategies. |
| McNamara & O’Reilly (2006) | To improve reading comprehension. | Sample was low-income, suburban students enrolled in a summer learning program called Learning Bridge, who had just completed Grades 7 and 8. | Two sessions on two consecutive days (Mean=104 minutes) –53 minutes of which are spent on practice. | Two sessions on two consecutive days (Mean=104 minutes) –53 minutes of which are spent on practice. | • At post-test, program increased reading and math grades and contraceptive knowledge, but these impacts were not sustained.  
• No short- or long-term impact on sexual activity, pregnancy, & contraception use, nor on rates of high school dropout, college attendance, employment, and welfare receipt.  
• Increased comprehension of text-based questions for teens with low prior knowledge of reading strategies  
• Increased comprehension of bridging—infERENCE questions for teens with high prior knowledge of reading strategies. |
<table>
<thead>
<tr>
<th></th>
<th>Teach Baltimore</th>
<th>Voluntary Summer Reading Program</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Program Goals</strong></td>
<td>To prevent summer learning loss and promote academic achievement.</td>
<td>To improve reading achievement scores</td>
</tr>
<tr>
<td><strong>Target Population</strong></td>
<td>Low-income students in kindergarten and first grade.</td>
<td>Fourth grade voluntary student participants in 10 schools</td>
</tr>
<tr>
<td><strong>Duration and Dosage</strong></td>
<td>8 week program, instruction (including breakfast and lunch times) lasts 6 hours per day, 5 days per week (240 hours)</td>
<td>12-13 weeks. Dosage is unknown because children choose how often to read the books that are mailed to them and they may or may not read the book that is mailed.</td>
</tr>
<tr>
<td><strong>Intervention Description</strong></td>
<td>Three intensive hours of instruction on reading and writing through read-aloud/think-aloud activities and phonics-based instruction (Open Court curriculum). This is followed by physical activities (20 minutes per day), hands-on math and science projects, educational games, recreational activities, arts and crafts, and enrichment activities, such as science investigations, foreign language, music and drama, and arts and crafts.</td>
<td>Instructor-led, reading lessons in June. 8 books mailed to students biweekly, during the months of July and August. Students were encouraged to practice oral reading with a family member and practice reading strategies during independent, silent reading sessions.</td>
</tr>
<tr>
<td><strong>Impacts</strong></td>
<td>• Improved reading achievement but impacts were not statistically significant.</td>
<td>• Improved black students’ reading scores, but not white, Latino, or Asian students’ scores.</td>
</tr>
<tr>
<td></td>
<td>• Improved learning across three literacy domains for students who attended at an above average rate across at least 2 of the 3 summers.</td>
<td>• No significant impacts on oral fluency</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Higher effect sizes (ESs) for reading achievement were found for students owning fewer than 100 books and for students with reading fluency below national norms. However, ESs were still small.</td>
</tr>
</tbody>
</table>
Appendix D
Lessons from Youth Development Research and Evaluation
Kristin Anderson Moore, Ph.D., Child Trends, April 2008

- At-risk children and youth can be helped by programs; while program impacts are often modest and brief, many programs have been found to have positive impacts.

- Early intervention, including the preschool years, is ideal, but many approaches are effective for older children and youth as well.

- Positive relationships with caring adults are key to feeling connected to a program. This requires committed staff and low staff turnover.

- Didactic lectures increase knowledge but are not very effective at changing behavior. Interactive approaches are more effective.

- Programs that help young people address their own positive goals are more likely to engage adolescents than are programs that focus on suppressing problem behaviors.

- Peer influences are important and are typically positive, and peer leaders can be effective.

- For disadvantaged youth, multi-element programs that are more intensive and long-lasting and address the whole person are promising. However, brief interventions can be effective when they target a specific goal, such as using condoms.

- Some approaches don’t work. Short “shock” approaches such as Scared Straight are not effective. Also, among delinquents, groups comprised entirely of delinquents are not an effective approach. While mentoring is an effective approach, it appears that brief mentoring may be harmful.

- Engagement of “disinterested” eligible participants and attendance and retention of at-risk individuals represent major challenges to programs.

- Successful programs are safe, accessible, structured yet flexible, provide incentives and rewards such as snacks, and keep parents informed and, if possible, involved. Staff are well-trained and supported and are focused on the needs and development of the children or youth. Successful programs generally have a logic model that guides their work and they know the outcomes they are targeting, either directly or indirectly.

- The STRIDES framework guides Child Trends’ Research to Results work:
  Sequencing age appropriate strategies
  Targeting program activities and participants
  Revising and improving programs
  Implementation quality
  Disseminating widely
  Evaluating programs, and
  Sustaining strong programs

Please visit our websites @ www.childtrends.org and www.childtrendsdbank.org
## Appendix E
### Past and Current Funding Sources

<table>
<thead>
<tr>
<th>Program</th>
<th>Corporate and Nonprofit Foundations</th>
<th>Non-profits and Business</th>
<th>Banks/Trusts</th>
<th>Public</th>
</tr>
</thead>
</table>
| **Building Educated Leaders for Life**  
[http://bellnational.org/education/](http://bellnational.org/education/)  
Cost: ~$222/student, (based on information from [http://www.bellnational.org/news_events/NY_life.htm](http://www.bellnational.org/news_events/NY_life.htm))  
Sites: Boston, Detroit, Baltimore, New York, and Springfield, MA  
Participants: 12,000 students in 75 public and charter school sites. | The Atlantic Philanthropies  
Boston Foundation  
Brown Rudnick Charitable  
Charles Hayden Foundation  
Charles Stewart Mott Foundation  
Highland Street Foundation  
Lloyd G. Balfour Foundation  
Lone Pine Foundation  
Louis Calder Foundation  
*New York Life Foundation* (recently gave $500,000 in 2008 to expand BELL to reach 2250 more students).  
Robin Hood Foundation  
Samberg Family Foundation  
Smith Family Foundation  
Starr Foundation  
Weinberg Foundation | Boston Red Sox  
Comcast  
Houghton Mifflin  
New England Patriots  
New Profit, Inc.  
Target  
Wilmer Hale LLP | Bank of America  
Citizens Bank  
Fidelity Investments  
Jane’s Trust  
Liberty Mutual  
Sovereign Bank | None |
| **Read to Achieve**  
URL: N/A  
Cost: $21,023,684 for 24,551 students in 2002-2003 (an average of $856.33 per student).  
Site(s): Los Angeles, CA | Milken Family Foundation | The National Basketball Association | None | Colorado Department of Public Health and Environment  
Kentucky Department of Education  
United States Department of Education 21st Century Community Learning Centers Program |
| **Career Beginnings Summer Academy**  
[http://www.csud.edu/careerbeginnings/s_academy.shtml](http://www.csud.edu/careerbeginnings/s_academy.shtml)  
Cost: n/a  
Site(s): Bakersfield, CA | Weill Foundation  
Citigroup Foundation | Owens Valley Career Development Center (nonprofit)  
Pacific Gas and Electric Company (PG & E) | None | Employers’ Training Resource (through the Workforce Investment Act)  
KCSOS - Migrant Education Region V |
| **Louisiana State Youth Opportunities Unlimited**  
Cost: $2857 per student  
Site(s): Louisiana | None | None | None | Office of the Governor through the Louisiana Department of Labor  
Job Training Partnership Act (JTPA) Offices—now called the Workforce Investment Act |
## Past and Current Funding Sources (cont’d)

<table>
<thead>
<tr>
<th>Program</th>
<th>Corporate and Nonprofit Foundations</th>
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<tbody>
<tr>
<td><strong>Upward Bound</strong></td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>U. S. Department of Education, The Federal TRIO Programs</td>
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<tr>
<td>Cost: ~$1000 per student (based on the fact that DOE awarded 50,000 per year awarded for 50 students in Florida)</td>
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<tr>
<td><strong>Teach Baltimore</strong></td>
<td>Aaron and Lillie Straus Foundation</td>
<td>After-School Institute</td>
<td>Clayton Baker Trust</td>
<td>Baltimore City Public School System</td>
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<tr>
<td>URL: n/a</td>
<td>Abell Foundation</td>
<td>Civic Works</td>
<td>Baker Trust</td>
<td>Maryland State DOE.</td>
</tr>
<tr>
<td>Site(s): Baltimore, MD</td>
<td>Baltimore Community Foundation</td>
<td>Corporation for National Service Developmental Studies Center</td>
<td>Joseph Meyerhoff Fund</td>
<td>Site(s): Baltimore, MD</td>
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<td>Campbell Foundation, Inc.</td>
<td>ERIC</td>
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<td>Site(s): Baltimore, MD</td>
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<td></td>
<td>Commonwealth Foundation</td>
<td>Clearinghouse on Urban Education</td>
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<td>Site(s): Baltimore, MD</td>
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<td>Ensign Markland Kelly Foundation</td>
<td>Johns Hopkins University</td>
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<td>Site(s): Baltimore, MD</td>
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<td></td>
<td>Enterprise Foundation</td>
<td>Junior League of Baltimore City</td>
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<td>Site(s): Baltimore, MD</td>
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<td>Erickson Foundation</td>
<td>Maryland Institute College of Art</td>
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<td>Site(s): Baltimore, MD</td>
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<td>Goldsmith Foundation</td>
<td>Maryland Space Grant Consortium</td>
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<td>James Riepe Family Foundation</td>
<td>Open Society Institute – Baltimore</td>
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<td></td>
<td>Jean and Sidney Silber Foundation</td>
<td>Reading Is Fundamental Shriver Consortium United Way of Central Maryland</td>
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<td>Lockhart Vaughan Foundation</td>
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<td>Lois H. &amp; Charles A. Miller Foundation</td>
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<td></td>
<td>Margaret O. Cromwell Family Fund</td>
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<td>Family Fund of the Baltimore Community Foundation</td>
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<td>Foundation</td>
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<td></td>
<td>Morris Goldseker Foundation</td>
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<td>Morton and Jane Blaustein Foundation</td>
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<td>Morton &amp; Sophia Macht Foundation</td>
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<td>Otto-Whalley Family Foundation</td>
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<td>Smith Richardson Foundation</td>
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<td>T. Rowe Price Foundation</td>
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<td>Thomas Wilson Sanitarium</td>
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<td><strong>Voluntary Summer Reading Program</strong></td>
<td>Project READS: Proposal for Multi-District Randomized Controlled Trial of a Voluntary Summer Reading Intervention, Grant Number 8130, William T. Grant Foundation, $520,968 (2007-2009).</td>
<td>None</td>
<td>None</td>
<td>None</td>
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<tr>
<td><strong>Summer Career Exploration Program</strong></td>
<td>Philadelphia Foundation William Penn Foundation.</td>
<td>Yes –but do not know which ones.</td>
<td>n/a</td>
<td>n/a</td>
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<tr>
<td><strong>I-start</strong></td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>National Science Foundation (Award Abstract #0735682)</td>
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</tbody>
</table>
ENDNOTES


xiv The seven surveys which did not include summer program participation data were as follows: Survey of Income and Program Participation, National Education Longitudinal Study of 1988, High School and Beyond, Education Longitudinal Study of 2002, National Survey of Children’s Health, National Household and Education Survey, and Monitoring the Future.


xvii This finding is similar to the estimate of 24 percent found in a study conducted by Capizzano, Adelman, & Stagner (2006) with the NSAF 1999 survey – looking at children of employed primary caretakers (aged 6 to 12). See Capizzano, J., Adelman, S., & Stagner, M. (2002). What happens when the school year is over? The use and costs of child care for school-age children during the summer months. *Washington, DC: The Urban Institute.*


xxi http://www.childtrends.org/links

xxii http://www.hfrp.org/


National Center for Summer Learning (n.d.).


