Promoting Health Equity Through Education Programs and Policies: Out-of-School-Time Academic Programs

Study Details	Setting, Study Period, and Study Population	Intervention Characteristics	Analysis and Outcome Measures	Conclusions	Review Effect Estimate
Author (Year): Dynarksi (2004) **Study Design (Suitability of Design):** Greatest Before/After with Concurrent Comparison Group (Greatest) **Quality of Execution:** Good (1 Limitation)	**Setting:** National (35 states) **Study Period:** 2000-2002 **Study population:** Students from grades six to eight and be participating in 21st CCLC from the randomly selected sample of 21st CCLC. Control group students are identified from similar schools within the same district that had matching propensity scores. Race/ethnicity is mixed and the majority qualify for free or reduced price lunch (an index of low income).	**Intervention:** 21st Century Learning Centers: Legislated programs originally providing at least 4 of 13 listed activities and components (e.g., literacy, nutrition and recreation, etc)—not all focused on child academics. Programs placed increasing emphasis on academics in 1998 and again in 2001. **Comparison:** Afterschool activities in which students were normally engaged, which might include staying home with parents, staying home alone, or enrolling in an afterschool program or activity other than the 21st Century Center.	**Analysis:** Intent-to-treat regression models, descriptive statistics, i.e., percent changes pre- post. Effects reported as differences between standardized grades at follow-up, adjusted for baseline scores and demographics. Results also presented for effects of treatment among treated. **Outcomes:** Grades, test scores, classroom behavior and effort, absences, suspensions, location and supervision after school, social development, parental involvement, negative behavior, and feelings of safety after school	Negligible effects on academic outcomes, no improvements on perception of safety, mixed results for negative behavior, inconsistent evidence on victimization	<u>Year 1 Effects on Grades:</u> Relative Percent Change- • Math: 1.0% • English: 0.0% • Science: 0.2% • Social Studies: 0.6% <u>Year 2 Effects on Grades:</u> Relative Percent Change • Math: 0.9% • English: 0.6% • Science: 0.8% • Social Studies: 2.3%
Author (Year): James Burdumy- (2005) **Study Design**	**Setting:** National (8 states representing 4 regions- South, Northeast, Midwest, West). **Study Period:**	**Intervention:** see previous **Comparison**: see previous	**Analysis:** Intent-to-treat regression models, descriptive statistics, i.e., percent changes pre- post. Effects reported as differences between standardized test scores at follow-up, adjusted for	Results indicated a significant improvement in reading scores from fall to spring of the academic year. Participants' reading scores on the Flynt-Cooter reading Inventory increased from 2.7 to 3.8. 75% of the students	<u>Year 1 Effects on Grades:</u> Relative Percent Change- • Math: 1.8% • English: 1.1% • Science: 0.6% • Social Studies: 3.4%

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(Suitability of Design): Randomized Controlled Trial (Greatest) **Quality of Execution:** Good (1 limitation)	Fall 2000 – Spring 2002) **Study Population:** Students from kindergarten to sixth grade that submitted applications to oversubscribed centers serving elementary schools operating for at least 1 year before data collection period. Majority African American; majority qualify for free or reduced price lunch.		baseline scores and demographics. Results also provided for effects of treatment among treated. **Outcomes:** Grades, test scores, classroom behavior and effort, absences, suspensions, location and supervision after school, social development, parental involvement, negative behavior, and feelings of safety after school.	(n=45) experienced at least a one grade-level improvement in reading scores between 2004 and 2005. Negative behavior is concentrated in boys and students with high level of disciplinary problems at baseline.	<u>Year 2 Effects on Grades:</u> Relative Percent Change • Math: -0.9% • English: 0.5% • Science: -0.2% • Social Studies: -1.2%
Author (Year): Black (2009) **Study Design (Suitability of Design):** Randomized Controlled Trial (Greatest)	**Setting:** 27 centers are located in 10 unspecified states. **Study Period:** 2005-2007 **Study Population:** Students in second through fifth grades who	**Intervention:** 45 minutes of formal academic instruction during after-school programs to students who need help in meeting local academic standards. The model includes the use of research-based instructional material and teaching methods especially designed to work in a voluntary after-school setting. **Comparison:** "Regular"	**Analysis:** Largely intention to treat analyses. Program impacts are estimated using OLS regression. The mean outcome levels are calculated by using the same impact regression model. The analysis specifically controls for differences between the enhanced and regular group in prior achievement levels and student characteristics. **Outcomes:** Student	Overall: 1) No effect on student academic behavior. 2) The effects on student achievement for the analysis of two year participants was generally larger in magnitude than those yielded by the intention to treat analysis, but did not reach statistical significance. Enhanced Math Program: 1) One year of enhanced	<u>Effect on Math Achievement:</u> Relative percent change: 0.6% <u>Effect on Reading Achievement:</u> Relative percent change: -0.2% <u>Effect on Academic Behavior:</u> Relative percent change: 0.3%

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Quality of Execution: Fair (2 limitations)	are behind grade level in reading or math but not by more than two years. Majority Hispanic or African American; majority qualify for free or reduced price lunch.	afterschool programs which consisted most commonly of help with homework — although, across both years of implementation, 22 percent of regular program staff in math centers reported providing some form of academic instruction in math and 14 percent of regular program staff in reading sites reported providing some form of academic instruction in reading.	achievement in reading and math and student academic behavior	instruction produces positive and statistically significant impacts on student achievement. 2) Two years of the enhanced math program produces no additional achievement benefit. Enhanced Reading Program: 1) The enhanced program has no impact on total reading test scores after one year of participation. 2) Two years of participation produces significantly fewer gains in reading achievement for students in the enhanced program group.	
Author (Year): Borman (2006) **Study Design (Suitability of Design):** Randomized controlled trial (Greatest) **Quality of Execution:** Good (0 Limitations)	**Setting:** Baltimore, Maryland **Study Period:** Summers of 1999, 2000, 2001 **Study Population:** Kindergarten and first grade students registered for Teach Baltimore and in one of the ten Baltimore City schools during the	**Intervention:** Teach Baltimore-voluntary summer school for disadvantaged youth. A typical day includes: breakfast, 3 hours of intensive reading and writing instruction, phonics-based instructional materials, read-aloud activities to promote vocabulary and reading comprehension, lunch, physical activities, hands-on math and science projects, educational games, arts and crafts, and enrichment activities. **Comparison:** Students who	**Data Analysis:** Multilevel analyses of student's longitudinal achievement growth—intention to treat analysis; and complier average causal effect analysis, i.e., effect among the treated. **Outcomes:** CTBS/4- Total reading, reading vocabulary, and reading comprehension	1) Results are consistent with the faucet theory of Entwisle (1997). 2) Voluntary summer school program developed specifically to avert the summer achievement slide can help prevent students from falling behind and can have a positive impact. 3) Evidence from this study suggests that a voluntary summer school program can help improve longitudinal learning for students from high-poverty schools, but	<u>Effect of intervention among those who attended the program at an above average rate across at least two of the three summers:</u> <u>Reading Vocabulary:</u> 3.94 more scale score points per time period, relative to control, for total of 19.7 over the 5 periods; d=0.32 <u>Reading Comprehension:</u> 4.4 scale score points per time period, relative to

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	spring of 1999 or 2000. Majority of students African American; the majority participate in free lunch program.	were eligible, but not enrolled in Teach Baltimore summer school. Presumably not enrolled because of lack of capacity and other factors (moving, health, etc.)		only with students' regular attendance in the program. 4) Students attending at least two of three summers at an average attendance rate returned to school in the fall of the 3rd year of the study with achievement scores of approximately ½ to 1 standard deviation higher than those of their similar peers from the control group. This treatment effect for compliers was equivalent to 50% of one grade level in vocabulary, 40% of one grade level in comprehension, and 41% of one grade level in total reading.	control for total of 21.8 over the 5 periods; d=0.28 Total Reading: 3.8 scale score points per time, relative to control for total of 19.2 over the 5 periods; d=0.30
Author (Year): Borman (2009) **Study Design (Suitability of Design):** Randomized Controlled Trial (Greatest) **Quality of Execution:**	**Setting:** Baltimore, Maryland **Study Period:** Summer 2004 **Study Population:** Principal recruited low-achieving students from 4 high-poverty urban schools from Baltimore. The majority of	**Intervention:** Free, 6 week, full day (8am-2pm) summer enrichment camp called KindergARTen in literacy and fine arts. Daily schedule included breakfast, greetings/songs/ poems, 3hr daily literacy instruction, reader's workshop, writer's workshop, lunch, recess, reading aloud, science and art, and a few field trips when necessary. **Comparison:** Students who did not participate in the summer program	**Data Analysis:** Due to unequal selection probabilities across sites, each analysis utilizes analytical weights. Treatment and control weights were normed to a mean of 0 and a standard deviation of 1. Pre-post comparison, principally intention to treat analysis, with few effects among treated assessed. Least squares regression performed on posttest scores controlling for pretest, gender, and a vector of school site. Also	Treatment effects during the summer months were of both practical and statistical significance on the DRA--a Word List Assessment. Other effects were not statistically significant. At posttest the average treatment student outpaced the average control student by 16 percentile points on the DRA Instruction assessment	Letter Naming (DIBELS) Relative % Change: -10.4 Phoneme Segment (DIBELS) Relative % Change: -8.0 Word List A Relative % Change: 43.4 DRA Instruction Relative % Change: 26.8

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Good (0 limitations)	students are African American and are eligible for free school lunch.		regression analyses including adjusting for no-shows to determine the effect of actual participation in the program. **Outcome:** Letter naming fluency, phoneme segmentation fluency – DIBELS test, Word list pre/posttest, developmental Reading Assessment, dictation		<u>Dictation</u> Relative % Change: 6.5
Author (Year): Boulden (2006) **Study Design (Suitability of Design):** Before/After with Concurrent Comparison (Greatest) **Quality of Execution:** Fair (4 limitations)	**Setting:** Kansas City, Missouri **Study Period:** Unspecified **Study Population:** Majority Hispanic students in grades 1-3, residing in Kansas City with below grade-level reading scores. Majority of students are eligible for free or reduced price lunch.	**Intervention:** Young Reader's Program. This 28 week school year supplemental reading program combines social work principles and philosophies with an educational curriculum in an after-school supplemental reading program for Hispanic/Latino, low-English-proficient, low-income, first- through third-grade students with below grade-level reading scores. The program addresses multiple learning styles, incorporates art and motion, integrates skills instruction with high-quality children's literature, storytelling, shared reading, singing, drawing, movement, and manipulative-based instruction. The program	**Data Analysis:** One way-between subjects analysis of covariance (ANCOVA tests) **Outcomes:** Reading scores on the Sunshine Reading Assessment, which is designed to assess reading, writing and spelling for grades 1 through 6.	The Young Reader's Program resulted in a significant positive change in the mean student Sunshine Reading Assessment reading scores in each of the three years and in all five schools. In addition, there was a significant positive difference between the scores of the students who participated in the Young Reader's Program and those who did not.	<u>SRA (Sunshine Reading Assessment):</u> <u>Relative percent change:</u> 23.5%

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		uses whole-class, small-group and individualized instruction with an emphasis on making learning enjoyable. Finally, the program coordinator was able to bridge the gap between school and home life. **Comparison:** Students who were eligible for the Young Reader's Program, but were not able to participate.			
Author (Year): Burgin (2008) **Study Design (Suitability of Design):** Before- after-with concurrent comparison (Greatest) **Quality of Execution:** Fair (4 limitations)	**Setting:** Near the University of Arkansas (Little Rock): **Study Period:** not specified **Study Population:** Majority African American kindergarten through fourth-grade students who attended one of two large elementary schools in the same high poverty neighborhood	**Intervention:** summer reading program from 8:30am until 11:30 am Monday through Friday for one month (20 contact days). Instruction was exclusively focused on literacy. The curriculum was based upon Dorn and Soffos' conception of a model classroom that forms the basis of the Reading First Initiative. Students. Students must have attended at least 70% of the sessions. **Comparison:** A matched comparison sample from the same school who did not attend summer reading program samples.	**Data Analysis:** Wilcox Signed Rank Tests, dependent samples t-tests **Outcome:** Writing test scores	Results indicated a statistically significant summer improvement in writing for kindergarten, third-, and fourth-grade participants and a statically significant summer loss for first and second graders who did not attend.	<u>Effect on writing scores: Relative percent change:</u> 5.4% Cohen's d=0.29

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Author (Year): Cross (2009) **Study Design (Suitability of Design):** Randomized Controlled Trial (Greatest) **Quality of Execution:** Fair (4 limitations)	**Setting:** Not specified-urban school district. **Study Period:** 2006-2007 school year **Study Population:** Majority African American students enrolled in one of the five participating middle schools, grades six to eight who were registered for the afterschool program. The majority of participants received free or reduced price school lunch.	**Intervention:** The All Stars "Core" includes 14 lessons intended to prevent substance use and to reduce bullying, violence, and other conduct problems. The program day began with a brief (approximately 30-min) period during which students had a snack while staff handled administrative tasks. On Tuesdays and Wednesdays, students attended academic assistance sessions (usually homework) with staff assistance and All Stars sessions each for 45 min. Students were typically divided into two groups during this period and alternated between the academic and All Stars activities. The last hour of the day was spent on leisure activities, usually sports, crafts, board games, movies, or computer games. On Thursdays, the entire 3 h of programming was dedicated to snack time and leisure activities. **Comparison:** Those who registered for the program but were not invited to attend the program (due to randomization to a limited	**Data Analysis:** OLS regression, Poisson Regression, Logistic regression. **Outcomes:** Last month drug use, disruptive classroom behavior, aggression, delinquent behavior.	Overall, All Stars does not appear to have been effective in preventing problem behavior or promoting healthy behavior in the treatment group youth. The results suggest that assignment to a group that receives All Stars in the context of a year-long after school program does not produce different outcomes than participation in after school activities are typically available to youths. Despite the reasonable level of fidelity in program delivery, student exposure to the All Stars lessons was lower than expected due to low levels of attendance in the after school program. None of the conducted analyses changed the conclusion that dosage was not related to the outcomes examined. Treatment students attending lower quality sites experienced significant deterioration in decision making skills ($p<.05$), relative to the control students from these sites. However, given the large	<u>Unsupervised Socializing</u> (Relative % Change): -12.5% <u>Delinquency</u> (Relative % Change): 6.2% <u>Last Month Drug Use</u> (Relative % Change): 17.3%

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		number of spaces).		number of tests conducted, the one interaction that reached conventional levels of statistical significance must be regarded as potentially due to chance.	
Author (Year): Denton (2010) **Study Design (Suitability of Design):** Before/After with concurrent comparison group (Greatest) **Quality of Execution:** Fair (2 Limitations)	**Setting:** Large urban district in the Southwest US. **Study Period:** not specified. **Study Population:** Majority African American elementary school students attending after-school programs in one of the four selected elementary schools. The majority of students are economically disadvantaged.	**Intervention:** Summer School experimental reading program that followed a consistent daily schedule and was developed by the authors specifically for this study. Each day teachers read the same picture book aloud to the children during two 45-minute whole-group sessions: The first session included planned interactive comprehension instruction, while the second session incorporated planned interactive vocabulary instruction. Each session was followed by a set of small-groups (2-5 students) rotating between two teaching tables and two learning centers: each group spent 20 minutes at each of these four stations. At one teaching table, the teacher delivered basic reading instruction, while at the second teaching table the paraprofessional taught mathematics in the morning and reading comprehension	**Data Analysis:** ANOVA, one tailed tests of significance. For the WJ III letter-word identification and oral comprehension subtests, W-scores were used, Growth Scale Value (GSV) scores and Comprehensive Test of Phonological Processing analyses were conducted on raw scores (F tests). Cohen's d was used to compare the treatment and comparison group on the pre-post difference scores for each variable. Randomization was assessed by comparing characteristics of intervention and control subjects. Intervention subjects were more likely to be male and had lower baseline scores. **Outcomes:** Letter-word identification, oral comprehension, blending words, sound matching, oral reading fluency, picture vocabulary, letter-sounds, high-frequency words, decodable-words, vocabulary	Students who attended the intensive summer reading program made significantly better gains on measures of word reading and listening comprehension when compared to students who received typical summer school instruction, although word reading outcomes could be attributed in part to differences between teachers. Results related to phonological awareness were mixed, and there were no significant between-group differences detected in oral reading fluency or vocabulary. The most robust effect size was associated with growth in word reading as measured by the WJ III. In the area of phonemic awareness, the treatment group had significantly better outcomes in phoneme blending, but not in sound	<u>Letter-Word ID</u> Relative % Change: 4.8 <u>Oral Comprehension</u> Relative % Change: 2.6 <u>Blending Words</u> Relative % Change: 10.5 <u>Sound Matching</u> Relative % Change: 3.7 <u>Oral Reading Fluency</u> Relative % Change: -2.8 <u>Picture Vocabulary</u> Relative % Change: 1.2 <u>Letter-sounds</u> Relative % Change: 0.7 <u>High-frequency</u> Relative % Change: 20.6

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		in the afternoon. Every day each child received a total of four 20-minute small-group lessons (two basic reading, one math, and one reading comprehension). Students received explicit, systematic instruction in phonemic awareness, phonics, recognition of high-frequency words, and sentence reading in the two basic reading lessons every day. Teachers provided direct instruction in new phonics and phonemic awareness skills, and students practiced these skills through a variety of hands-on activities with teacher feedback. **Comparison:** Unaltered summer programs. Relative to the treatment group, there was little direct instruction, small group instruction, and no observed formal vocabulary instruction or purposeful instruction focused on comprehension. No control populations for the states examined.		matching.	<u>Decodable Words</u> Relative % Change: 41.2 <u>Vocabulary</u> Relative % Change: 2.6 **<u>Overall Mean Relative % Change:</u>** 8.5%

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Author (Year): Edmonds (2009) **Study Design (Suitability of Design):** Pre-post with concurrent comparison group (Greatest) **Quality of Execution:** Fair (4 limitations)	**Setting:** Western U.S. **Study Period:** not specified **Study Population:** Children who were 4 years old on or before October 16 of the school year, and were in the bottom quartile of students as determined by midyear assessment data. Majority are African American and quality for free or reduced-price lunch.	**Intervention:** Full-day, summer-school program in which each teacher had at least 5 years of teaching experience. Teachers also participated in professional development and supervised teaching opportunities related to the Opening the World of Learning (OWL). The schedule each day involved 3 hours of intensive literacy instruction. **Comparison:** The summer educational experiences for the children in the control group were unknown, but comparable structured summer school programs were not provided by their district.	**Data analysis:** ANOVA to determine differences in and between groups, mean, and SD. Pre and post scores available for intervention and control populations. **Outcome:** Letter naming, picture naming, alliteration, rhyming, individual growth and development indicator and Dynamic Indicators of Basic Early Literacy Skills.	The authors documented improvements in children's letter-naming, picture-naming, and rhyming skills when compared with a nonparticipating control group. Differences between the treatment and control groups were not as strong for the children's alliteration skills. These positive results suggest that a 6-week summer prevention program could increase the likelihood that children from high-risk backgrounds will have a positive beginning school experience.	Letter Naming Relative % Change: 24.2% Picture Naming Relative % Change: 65.3% Alliteration Relative % Change: 2.6% Rhyming Relative % Change: 92.4% **Overall Mean Relative % Change:** 46.1%

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Author (Year): Gottfredson (2004) **Study Design (Suitability of Design):** Randomized controlled trial and prospective data collection with concurrent comparison group (Greatest) **Quality of Execution:** Fair (3 Limitations)	**Setting:** Unspecified location in Maryland **Study Period:** 1999-2000 school year **Study Population:** Students in grades 4-8 that attended one of fourteen afterschool programs. The majority are non-white.	**Intervention:** Fourteen programs participated in the outcome evaluation of this initiative during the 1999–2000 school year. The ultimate goals of the funding initiative were to reduce delinquency and substance use among program participants. Programs serving high-crime areas were preferred. The programs each served between 22 and 45 students in grades four through eight. All programs offered academic assistance, social skills training, and recreational or enrichment activities aimed at retaining the youths in the program. **Comparison:** Students who were on the waiting list in the randomized treatment sites, but were not admitted into the treatment.	**Data Analysis:** All structural equations models (SEMS) were estimated using LISREL v 7.16. In these models, measures of delinquent and rebellious behavior and substance use, all measured at posttest are treated as multiple indicators of a latent "Delinquent Behavior": variable. The decision to combine these indicators was justified in the data. Each model includes statistical controls for each endogenous variable measured at the pretest as well as gender and race. **Outcomes:** Delinquent behavior, rebellious behavior, last-year variety of drug use, intentions not to use drugs, hours/week in self-care, involvement in constructive activities, social skills, positive peer associations.	After school programs were found to be efficacious in reducing delinquency in the middle school but not in the elementary cohort. This may be because programs serving middle school students placed noticeably greater emphasis on this component than did programs serving younger students. Younger students may also have inherently lower rates of delinquency, making reductions harder to detect. Afterschool programs that emphasize social skill and character development are more effective at reducing delinquent behavior than programs lacking such emphasis, and part of the effect of afterschool participation in these programs in mediated through improved attitudes pertaining to substance use and more positive peer associations. The study provided no support for the hypothesis that afterschool programs reduce delinquent behavior by decreasing time spent unsupervised, by increasing	<u>Delinquent behavior</u> (Adjusted relative % change) Younger Cohort (Grades 4-5): 52.3% Older Cohort (Grades 6-8): -29.2% <u>Last-year variety of drug use</u> (Adjusted relative % change): Younger Cohort (Grades 6-8): 50.0% Older Cohort (Grades 6-8): -34.9%

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				involvement in constructive activities, or by providing constructive, alternative activities for youths.	
Author (Year): Hanlon (2009) **Study Design (Suitability of Design):** Prospective data collection with concurrent comparison (Greatest) **Quality of Execution:** Limited (5 Limitations)	**Setting:** Unspecified location, Two urban middle schools in low SES neighborhood **Study Period:** Not specified **Study Population:** Largely African American students eligible for free or reduced price lunch. Students were in sixth grade and in one of two high risk urban middle schools.	**Intervention:** Village Model of Care as an after-school intervention program targeting African American youth entering an urban middle-school environment. The program is specifically designed to prevent both the initiation to, and escalation of, alcohol, tobacco, and other drug use; to avert participation in violent behaviors; to delay initiation of sexual activity; to improve social skills; and to improve academic performance **Comparison:** Those sixth grade students did not participate in the after-school intervention program. These students were actively recruited for participation in the study, but were enrolled in the middle school site without the intervention program.	**Data Analysis:** MANOVA, Exploratory analyses. No effect estimates reported. Only p values. **Outcomes:** Delinquent behavior (The Child Behavior Checklist- CBCL), GPA (School records including quarterly grades), emotional and behavioral problems (Teachers Report Form, CBCL, Youth Questionnaire), Conduct (Conners' Rating Scales Revised- CRS-R), self concept (Multidimensional self concept scale- MSCS)	Reported Findings: 1) No significant differences between the intervention and comparison samples in the interview questionnaire information relating to youth deviant activity. 2) No significant differences in behavioral or emotional problems. 3) No significant differences in child's school functioning. 4) Baseline to follow-up results for the total study sample on the CPRS-R revealed significant reduction for all four of the CPRS-R dimensions. 5) For the CTRS-R, or teacher version, there was a reduction of cognitive problems (p=.045), hyperactivity (p=.075) and ADHD (p=.093) favoring the intervention over comparison group. 6) Grade point average changes from the beginning of the sixth grade to the end of the school year for the intervention vs.	Overall effect: Benefit to intervention group, effect estimate not given, but p<0.001. The effect of intervention on GPA for those students who attend the program over half of the scheduled sessions(N=178) vs those who attended under half (N=56): *Ms* =3.58 (SD 5.37) vs 2.17 (SD 4.78); p=.08 The effect of the intervention on GPA among students who were judged to have "good to excellent" quality of participation (N=88) vs those whose participation wquality was judged to be "fair to poor": 4.38± 5.08 and 2.53 ± 5.27; p=.009

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				comparison groups revealed a significant differential effect favoring the intervention group (p<.001) 6)Among intervention students who attended at least half of the programs scheduled sessions (N=178), there was a tendency for a greater increase in grade point average than for those 56 students failing to attend at least half of the scheduled sessions. 7)Greater parental involvement in the program was related to increased grade point average scores at follow-up.	
Author (Year): Heinrich (2010) **Study Design (Suitability of Design):** Retrospective data collection with concurrent comparison group	**Setting:** Milwaukee, Wisconsin Public Schools **Study Period:** 2004-2005, 2005-2006, 2006-2007 and 2007-2008 academic school year. **Study Population:** Milwaukee Public School middle and	**Intervention:** Students who were eligible AND registered for supplemental educational services (SES). Supplemental educational services – such as tutoring, remediation, or other academic instruction – are offered in addition to instruction provided during the school day. This option is available to low-income families whose children attend a Title I school that is in Year 2 (or later) of a school identified for	**Data Analysis:** Propensity score matching using binary variable that indicates any time spent in SES, Fixed effect model and Ordinary least squares regression with controls for student characteristics and school attended and with a continuous measure of total hours of SES attended. **Outcome:** Student academic achievement in reading and math, as measured by the standardized test	The results provide no evidence of statistically significant estimated SES effects on reading or math achievement.	<u>Estimated effects of SES on Math High School Achievement Gains</u> (Cohen's d): 2009-2010 20+ vs. <20 hours: 0.260 40+ vs. <40 hours: 0.258 2010-2011 20+ vs. <20 hours: 0.004 40+ vs. <40 hours: -0.056

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(Greatest) **Quality of Execution:** Fair (2 limitations)	upper school students. Majority African American and recipients of free school lunch	improvement. These services are free to parents and students, must be in addition to instruction provided during the school day, and may include tutoring, after-school services, and summer programs **Comparison:** Students who are eligible for SES but did register for enrollment	administered to Milwaukee Public Schools.		<u>Estimated effects of SES on Reading High School Achievement Gains</u> (Cohen's d): 2009-2010: 20+ vs. <20 hours: 0.111 40+ vs. <40 hours: 0.156 2010-2011: 20+ vs. <20 hours: 0.024 40+ vs. <40 hours: -0.004
Author (Year): Huang (2011) **Study Design (Suitability of Design):** Prospective data collection with concurrent comparison group (Greatest) **Quality of**	**Setting:** Los Angeles, California **Study Period:** 1998-99 to 2002-03 academic years (4 years) **Study Population:** Students in the LA school district who were in grades 6 through 9. Majority Hispanic and eligible for free or reduced price	**Intervention:** LA's BEST program- a comprehensive California-based afterschool program based on education principles that foster resilience and success for at-risk students. The program first implemented in 1988, seeks to provide a safe haven for students in neighborhoods where gang violence, drugs, and other type of anti-social behaviors are common. The program provides homework help, extra-curricular activities, nutrition and supportive adults. The goal is to provide students with the following resources: a	**Data Analysis:** Descriptive statistics, chi-square analyses, and Cox survival analysis. **Outcome:** High School drop-out rates.	Dropout rates were lower for LA's BEST participants and the difference increased as more of the cohorts entered high school, when students are most likely to dropout. <1 year of participation showed no statistically significant differences in drop-out rate between treatment and control groups.	Each day of LA Best attendance is associated with a 0.1% reduction in likelihood of dropout. ($p<0.000$) <u>2-year participants:</u> Chi-square statistics of dropout rates (9th grade cohort who began the program in 1998): 1999-00 = 8.138 ($p<.01$), 2000-01 = 6.982 ($p<.05$), 2001-02 = 9.005 ($p<.05$) <u>Three or more year participants</u> (all grade

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Execution: Fair (3 limitations)	school lunch.	safe environment, enhanced educational opportunities through the integration of an educational support structure into each student's schedule, educational enrichment activities to supplement the regular education program and provide enticement to learn, recreational activities, interpersonal skills and self-esteem development. **Comparison:** Those students who are enrolled as students in the LAUSD but not in the LA BEST program. These students were selected by a stratified random sampling and matched to participants on a variety of characteristics.			cohorts): 1999-00=8.004 ($p<.01$) 2000-01=12.926 ($p<.001$) 2001-02=13.380 ($p<.001$) 2002-03=10.220 ($p<.01$) <u>Cox Survival Analysis:</u> The effect of attendance in LA BEST on high school drop-out rates: Wald test: 30.980, $p<.000$
Author (Year): Jenner (2007) **Study Design (Suitability of Design):** Prospective data collection with concurrent comparison	**Setting:** Four areas of Louisiana: Baton Rouge, New Orleans, Grant Parish, and Bienville Parish **Study Period:** Fall 2003-Spring 2004 **Study Population:** "At risk" students	**Intervention:** Four 21st Century Learning Centers (CCLC) in Louisiana which serve middle and elementary school students, specifically grades 3 and 5 for this study. Program contents not described, but assumed to have academic focus. **Comparison:** Students who attended the same school as participants but did not enroll in or attend the after-school	**Data Analysis:** OLS regression. Baseline differences between treatment and control groups were controlled by background variation, including demographic, social, and economic measures (gender, race/ethnicity, and eligibility for free/reduced price lunch) and the fall test score (baseline) of each student. **Outcome:** Core and subject	The data indicate that the 21st CCLCs examined within the state of Louisiana are having a positive academic impact on at-risk students who attend the program for at least 30 days. The program has positive and significant impacts on reading, language and social studies. Participants share academic benefits broadly, though	<u>OLS estimates of impacts of standardized post test scores:</u> <u>Program Participation effect:</u> $b=2.087$, $t=3.59$, $p<.05$ <u>Dose-Response:</u> Attends 30-59 days: $b=1.781$, $t=1.98$, $p<.05$ Attends 60-89 days: $b=2.009$,

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group (Greatest) **Quality of Execution:** Fair (3 limitations)	attending one of the four selected schools (economically disadvantaged and attend at the program at least 30 days. Majority African American and eligible for free or reduced price school lunch.	program.	(Math, Language, Reading, Science, Social Studies) test performance on nationally standardized pre- and posttests (Iowa Test of Basic Skills; (ITBS)	minority students and moderate achievers do appear to exhibit a more robust growth. The typical student who takes part in at least 30 days of the after-school program is expected to achieve a learning gain of one and one third months over a counterpart who does not participate in the program.	*t*=2.14, p<.05 Attends 90 days and up: *b*=2.469, *t*=2.72, p<.05 <u>Program Impact by Subject:</u> Language: *b*=1.619, *t*=2.22, p<.05 Reading: *b*=1.478, *t*=2.00, p<.05 Math: *b*=0.627, *t*=0.80, p>.05 Social Studies: *b*=1.875, *t*=2.03, p<.05 Science: *b*=-0.226, *t*=-0.25,p<.05 <u>Program Impact by Participant Subgroups</u>: Minority: *b*=2.488, *t*=3.58, p<.05 *Nonminority: *b*=0.610, *t*=0.55, t>.05 Boy: *b*=2.017, *t*=2.2, p<.05 Girl: *b*=2.106,

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					t=2.87, p<.05 Low academic achievers: *b*=1.218, *t*=0.91, p>.05 Middle-low: *b*=3.049, *t*=2.66, p<.05 Middle-high: *b*=3.504, *t*=3.35, p<.05 *High: *b*=-0.45, *t*=-0.32, p>.05 * small sample size
Author (Year): Kim (2010) **Study Design (Suitability of Design):** Before-after with treated comparison group (Greatest) **Quality of Execution:** Fair (2 limitations)	**Setting:** Unspecified United States school district **Study Period:** 2005-2006 **Study Population:** Children in grades 4-6 who scored below proficiency on their most recent Massachusetts Comprehensive Assessment System (MCAS) English language	**Intervention:** Read 180 Program: An after-school program that exclusively focused on improving children's reading skills. The intervention included 20 minute individualized computer-assisted instruction in which children participated in scaffolded reading practice with videos, leveled text, and word reading and fluency activities, independent and modeled reading of leveled books, and teacher-directed small-group lessons. Students were grouped by reading level. Lessons on word reading, fluency, vocabulary, and	**Data Analysis:** Pre- and post- test observation means and standard deviations, ANCOVA on each post test score using pretest scores as the covariate., descriptive, correlational, and regression analyses **Outcome:** Reading ability/achievement	No statistically significant difference between the children in READ 180 and district after-school program on pretest measures of word reading efficiency, reading comprehension and vocabulary, and oral reading fluency (p > .2). There was no statistically significant difference on the GRADE total reading test for the final sample of 264 children who took all pretests and posttests (M = 90.66, SD = 11.39) and the 22 children who only took the pretest (M = 88.55, SD=12.55), t (284) = -.83, p < .20.	<u>GRADE (Total Score):</u> Group Reading Assessment and Diagnostic Evaluation – vocabulary, sentence comprehension, and passage comprehension subsets. Test/retest reliabilities. <u>Pretest</u> Intervention mean: 91.0 Control mean: 90.**3** <u>Posttest</u> Intervention mean: 92.5 Control mean: 92.5

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	arts score. Majority African American and eligible for free or reduced price school lunch	comprehension activities were provided. **Comparison:** Treated control- District after-school one-hour program. No activities comparable to READ 180 were included. Optional small-group teacher lessons used 16 different activities		ANCOVA, with total reading scores from the GRADE as the covariate, also revealed no significant difference between the two groups on MCAS, F(1,261) = 1.11, p=0.29 Children in the READ 180 condition performed no better than children in the district after-school program on measures of total word reading efficiency, F(1, 261) = .09 Authors found no evidence that effects on the measure of word reading efficiency and reading comprehension and vocabulary differed by ethnicity, free or reduced-price lunch status, or gender	Standardized mean difference: -0.05 Relative % change: -0.7
Author (Year): Munoz (2008) **Study Design (Suitability of Design):** Other before /after design with concurrent	**Setting:** Jefferson County Public Schools in Louisville, Kentucky **Study Period:** 2005-2006 school year **Study Population:** Students from	**Intervention:** Supplementary Educational Services (SES)- federally mandated program, and provision of the No Child Left Behind Act, designed to raise student achievement by providing free tutoring programs. **Comparison:** Those eligible for SES, but nonparticipating.	**Data Analysis:** ANOVA, chi square analysis. Linear regression analyses **Outcomes:** Scores on Kentucky Core Content Test in Reading and Mathematics	ANCOVA yielded nonsignificant results for program effect- indicating no differences between the SES participants and comparison students for elementary, middle, and high school levels. None of the three providers with >100 students showed benefit of the program. Chi square analyses yielded	<u>Effect on Reading Scores</u> (Cohen's d): 0.07 <u>Effect on Mathematics Scores</u> (Cohen's d): 0.03

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comparison (Greatest) **Quality of Execution:** Fair (2 limitations)	grades four, seven or ten, enrolled in Jefferson County public schools and eligible for SES services. Majority of participants are of a minority race/ethnicity and the majority are eligible for free or reduced price school lunch.			no statistically different difference for baseline and after treatment for reading and math proficiency. Linear Regression Analyses showed no service provider showed a statistically significant impact on student achievement as measured by the state assessments in reading and mathematics.	
Author (Year): Myers (2004) **Study Design (Suitability of Design):** Randomized Controlled Trial (Greatest) **Quality of Execution:** Fair (2 limitations)	**Setting:** Nationwide **Study Period:** 1992-2004 **Study Population:** High school students from low-income families in need of academic support in order to pursue a post-secondary education. Majority African American and low SES (<150% FPL)	**Intervention:** Upward Bound is a federal program designed to "generate skills and motivation necessary for success in education beyond high school among young people from low-income backgrounds and inadequate secondary school preparation." Most Upward Bound projects emphasize academic preparation for attending and completing college. Participants engage in activities on a regular basis, often weekly; during the summer, they attend an intensive, full-day academic program that typically lasts for about six weeks. Projects often require students to take Upward Bound courses during both the summer and school	**Data Analysis:** Both ITT (the effect of being offered the opportunity to participate in Upward Bound) and observed (the effect of actual participation in Upward Bound) analyses were conducted for this report. To compute this effect, investigators used an instrumental variables estimator. To determine whether impact estimates were statistically significant, standard errors were computed that accounted for the sample design of the study. For Post-secondary outcomes both ITT and outcomes based on participation in Upward Bound are reported using the same analyses as the	Upward Bound had no effect on total credits and a small effect on credits earned in high school math. The program increased the number of math credits earned by 0.2 credits. Upward Bound had no effect on credits earned in science, English, social studies, or foreign language courses. Also, the program had no effect on honors and Advanced Placement credits, grades earned in high school, or high school graduation Upward Bound increased high school credits earned by students at higher academic risk and increased the total number of credits earned in core subjects by higher-risk	<u>Effect on overall GPA</u> (Relative percent change): 0.0% <u>Effect on high school graduation</u> (Relative percent change): -1.1% <u>Effect on college/university enrollment</u> (Relative percent change): 2.7% <u>Effect on College/University completion</u> (Relative percent change): Received Bachelor's: -1.5% Received Associate's: 34.9%

Study Details	Setting, Study Period, and Study Population	Intervention Characteristics	Analysis and Outcome Measures	Conclusions	Review Effect Estimate
		year. Almost all projects provide students with tutoring for high school course work and help to prepare them for college entrance exams. Additional services provided by Upward Bound include: academic counseling, study skills development, career planning, preparation for college living, and assistance with college applications. **Comparison:** Students not randomized to the treatment group were placed on a waiting list. Students could be randomly selected from the evaluation waiting list to fill program openings. Students could not be selected from the waiting list after a certain date – typically the start of the next recruiting period. If a control participant replaced a drop-out from the treatment group he/she was designated as non-research case and was excluded from all analysis. More than half of the control group reported participating in some kind of other supplemental services. The most common type of	secondary education outcomes. Logistic regression models were estimated for binary variables. Estimating the standard errors of impact estimates took into account the stratification of projects and the clustering of students within projects. **Outcomes:** overall GPA, and high school status, total core credits earned, total advanced placement (AP) and honors credits earned, post-secondary enrollment (4-year, 2-year, or vocational) and post-secondary completion (4-year degree, 2-year degree, or certificate/license)	students Upward Bound had no detectable effect on overall postsecondary enrollment for the average eligible applicant, and did not affect the types of institutions eligible Upward Bound applicants attended. However, there is evidence that Upward Bound increased the completion of certificates or licenses The opportunity to participate in Upward Bound did not significantly affect the type or selectivity of postsecondary institutions attended by eligible applicants Upward Bound had no detectable effect on the likelihood of completing a postsecondary credential in the seven to nine years after high school. Longer participation in Upward Bound was associated with increased enrollment at four-year institutions	

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		supplemental service received focused on instruction and tutoring sessions (43%) and programs with a math or science emphasis (38%). Fourteen percent of the control group reported participating in an Upward Bound Math or Science program and 12% participated in Talent Search			
Author (Year): Olsen (2010) **Study Design (Suitability of Design):** Prospective data collection with concurrent comparison group (Greatest) **Quality of Execution:** Fair (3 limitations)	**Setting:** Nationwide **Study Period:** 1992-2004 **Study Population:** High school students from low-income families in need of academic support in order to pursue a post-secondary education. African American is the most common race/ethnicity and the majority of students are low SES (<150% FPL)	**Intervention:** Upward Bound Math-Science (UBMS) projects offer academic enrichment in math and science to improve student achievement in those subjects and expose students to math and science careers. The general objective of the UBMS program is to prepare participating racial/ethnic minority students for postsecondary programs leading to careers in math and science. 18% of the treatment group had attended the regular Upward Bound program. UBMS projects differed from regular Upward Bound projects in their relative emphasis on certain subjects. First they concentrated their offerings more on math and science. UBMS projects were much	**Data Analysis:** To measure the effects of UBMS participation on participating students, the researchers used a regression-based approach that allowed them to (1) adjust for the small remaining differences between the UBMS participant sample and the matched comparison group and (2) increase the precision of their impact estimates. The regression models yield estimates of the effect of UBMS on students who participated in the program. For continuous variables, such as number of college credits, the researchers estimated linear regression models, for categorical outcomes. **Outcomes:** High school	UBMS increased enrollment at four year institutions UBMS shifted enrollment from two-year to four-year institutions among those participants who had previously participated in "regular" Upward Bound. UBMS increased enrollment at more selective institutions. UBMS increased math and science course taking. UBMS increased postsecondary degree completion overall and at four-year institutions. UBMS increased the likelihood of earning a degree in a social science field of study.	<u>Effect on overall GPA</u> (Relative percent change): 0.0% <u>Effect on high school graduation</u> (Relative percent change): 3.1% <u>Effect on college/university enrollment</u> (Relative percent change): 7.0% <u>Effect on College/University completion</u> (Relative percent change): Received Bachelor's: 36.0%% Received Associate's: 0.0%

Study Details	Setting, Study Period, and Study Population	Intervention Characteristics	Analysis and Outcome Measures	Conclusions	Review Effect Estimate
		less likely to offer instruction in areas outside of math and science, such as social science or history courses or electives or nonacademic courses. Both regular Upward Bound and Math Science programs focus on academics during the summer. **Comparison:** The impact analysis is based on a comparison of UBMS participants with a sample of students that (1) applied to enroll in regular Upward Bound programs in the early 1990s, (2) never participated in UBMS and (3) have been tracked by Mathematica Policy Research as part of the national evaluation.	achievement and preparation for college and for majoring in math and science, college enrollment, highest level of college attended, college selectivity, years of college completed and highest degree earned, and, field of study in college.		
Author (Year): Ross (2008) **Study Design (Suitability of Design):** Prospective data collection with concurrent comparison	**Setting:** Tennessee **Study Period:** 2005-2006 school year **Study Population:** Low income students in grades 4-8, who attend a Title I school that has not made	**Intervention:** Supplementary Educational Services (SES)- federally mandated program, and provision of the No Child Left Behind Act, designed to raise student achievement via the provision of free tutoring programs. **Comparison:** Students not receiving SES. The matching for each SES student was done within the classroom (teacher) by selecting the	**Data Analysis:** Fixed effects models **Outcomes:** Academic achievement in reading/language arts and math as measured by the TCAP, subject specific multiple choice test administered each spring.	The findings are consistent with previous evidence demonstrating that the effects of tutoring on student achievement tends to be small, and with only a few exceptions, not statistically different from zero.	<u>Effect on reading achievement</u> (Cohen's d): 0.002 <u>Effect on math achievement</u> (Cohen's d): -0.123

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group (Greatest) **Quality of Execution:** Fair (4 limitations)	Adequate Yearly progress (AYP) for at least 3 years. All students are eligible for free or reduced price school lunch	closest nontutored students based on predicted score differences not exceeding to Normal Curve Equivalent units.			
Author (Year): Schacter (2003) **Study Design (Suitability of Design):** Prospective data collection with concurrent comparison group (Greatest) **Quality of Execution:** Fair (4 limitations)	**Setting:** Los Angeles, California **Study Period:** not specified **Study Population:** Disadvantaged first grade students from three Title I schools in the Los Angeles area, with 100% of children receiving free or reduced price lunches. Majority African American	**Intervention:** Summer reading camp based on these 5 components: 1) early intervention (first graders), 2) target intervention to all disadvantaged students, not just low performers, 3) longer program duration (8 weeks instead of 4 or 6), 4) adoption of an evidence-based curriculum, 5) offer different experiences than are available during the school year. **Comparison:** Students who did not attend the summer reading camp intervention; however, the parents or legal guardians of students assigned to the control group were invited to participate in four training sessions over the summer designed to teach them effective reading strategies and techniques when reading with their children.	**Data Analysis:** MANCOVA, paired sample t tests. **Outcomes:** Vocabulary (Gates-Macginitie Vocabulary Level 1, Fourth Edition), reading comprehension (Gates Macginitie Comprehension Level 1, Fourth Edition), phonics (CORE phonics Survey), oral reading (Fry Oral Reading Survey)	Summer reading camp participants significantly outperformed students in the control condition on all reading measures: vocabulary, comprehension, phonics and oral reading measures. Control group participants did not improve significantly on any reading measure. In fact, their reading scores often declined.	<u>Adjusted Means Intervention and Control Groups:</u> <u>Vocabulary:</u> Intervention:*28.2, SE= 1.18 Control: 19.1, SE=.9 Cohen's d = 1.0 <u>Comprehension:</u> Intervention:*24.4, SE=1.20 Control: 15.4, SE .96 Cohen's d = 1.1 <u>Phonics:</u> Intervention:*76.7, SE=2.3 Control: 45.2, SE 1.8 Cohen's d = 1.2 <u>Oral Reading:</u> Intervention: *4.7, SE=.22 Control: 2.6, SE=.18 Cohen's d = .88

Study Details	Setting, Study Period, and Study Population	Intervention Characteristics	Analysis and Outcome Measures	Conclusions	Review Effect Estimate
Author (Year): Schacter (2005) **Study Design (Suitability of Design):** Randomized Controlled Trial (Greatest) **Quality of Execution:** Fair (2 limitations)	**Setting:** South Los Angeles, California **Study Period:** July 9th to August 24th, 2001 **Study Population**: 162 minority (African American and Hispanic), low SES (100% eligibility for free/reduced price lunch) first grade students attending one of three selected south Los Angeles schools.	**Intervention:** The summer reading day camp was administered five days per week, from 8:00 a.m. to 5:00 p.m. Children participated in two hours of daily reading instruction from 8:00 a.m. to 10:00 a.m. with the remainder of the day being dedicated to summer camp activities. The camp was free of charge, and included a free snack and lunch. **Comparison:** Students assigned to the control group did not receive any summer services. It is unclear whether the investigators were able to confirm this assumption.	**Data Analysis:** MANOVA, multivariate regression analysis, chi-square value, Root mean Square Error Approximation **Outcomes:** Reading achievement as measured by the Gates-MacGinitie Word Decoding Levels 1 and 2 Form S, and Gates MacGinitie Comprehension Level 1 and 2 Form S.	Summer reading camp student comprehension increased by the 41% compared with controls directly after the program. These students maintained a 39% advantage for three months, and at the end of the year were performing 18% better than controls. In terms of decoding, intervention students' advantage was 33% directly after the program, 22% after three months, and 0% by the end of the school year.	Effect on Reading Achievement (relative percent change): 47.1%
Author (Year): Schirm (2006) **Study Design (Suitability of Design):** Randomized controlled trial (Greatest)	**Setting:** Cleveland, Fort Worth, Houston, Memphis, Washington, D.C, Philadelphia and Yakima, Washington **Study Period:** December 1995 to the fall of 2000 **Study**	**Intervention:** Quantum Opportunities Program (QOP) was mainly an after-school program providing case management and mentoring, supplemental education, developmental activities, community service activities, supportive services, and financial incentives. These services were provided year-round for five years to enrollees who had not graduated from high school,	**Data Analysis:** The impact of QOP was measured by subtracting the mean outcome for the control group from the mean outcome for the QOP group. **Outcomes:** High school graduation rates (transcripts), Mathematics and Reading achievement tests (Quantum), cumulative GPA (transcripts), risky behavior (telephone and in-	QOP did not increase the likelihood of graduating from high school with a diploma. QOP has not increased the likelihood of ever engaging in postsecondary education or training. QOP has not improved employment-related outcomes. QOP did not improve high	Math Achievement (relative percent change): 1.0% Reading Achievement (relative percent change): 1.2% School grades (relative percent change): -2.7% High school completion (relative percent change): 10.2%

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Quality of Execution: Fair (3 limitations)	**Population:** Youths entering ninth grade with eighth grade GPAs below the 67th percentile at high schools with dropout rates >40%.	and were designed to be comprehensive and intensive enough to address all barriers to success. The program model specified roughly 15 to 25 enrollees per case manager, and it prescribed an annual participation goal of 750 hours for each enrollee who had not graduated. From graduation to the end of the demonstration, enrollees who had graduated received limited services- some mentoring and assistance with enrolling in postsecondary education or training. **Comparison:** Control-group members were not allowed to participate in the QOP program, although they could participate in the activities of other programs in their schools and communities.	person interviews),	school grades and achievement test scores QOP, generally, has not reduced the broad range of risky behaviors targeted by the program. Despite QOP's goal of engaging a broad cross-section of eligible youth, most enrollees attended relatively few program activities QOP seems to have been more effective for younger enrollees than for older enrollees QOP impacts varied by sites	<u>College/University enrollment</u> (relative percent change): 24.0% <u>Substance use</u> (relative percent change): 20.7%
Author (Year): Socias (2009) **Study Design (Suitability of Design):** Time series	**Setting:** Hillsborough, Florida and Anchorage, Alaska school districts. **Study Period:** 2006-2007 school year	**Intervention:** Supplementary Educational Services (SES)- federally mandated program, and provision of the No Child Left Behind Act, designed to raise student achievement via the provision of free tutoring programs.	**Data Analysis:** Supplemental educational services. Participants received an average of 28 hours of supplemental educational services in Anchorage and 22 hours of services in Hillsborough respectively.	Students who received supplemental educational services in mathematics in Hillsborough experienced larger academic gains than eligible non-participants. No gains were found in Anchorage, but participant group was extremely small.	<u>Reading Achievement</u> (Cohen's d): Hillsborough: -0.001 Anchorage: 0.01 <u>Math Achievement</u> (Cohen's d): Hillsborough: 0.05 Anchorage: -0.05

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study with comparison group (Greatest) **Quality of Execution:** Good (1 limitation)	**Study Population:** 2nd-12th grade, mixed ethnicity students eligible to receive SES services (attend a Title I school that has not made Adequate Yearly progress (AYP) for at least 3 years.)	**Comparison:** Students identified as being eligible for SES who did not choose to use the option	**Outcomes:** Math and reading achievement test scores	Students who received services from non-district providers in Anchorage experienced statistically significant mathematical achievement gains in comparison to eligible non-participants. In Hillsborough, only students served by non-district providers experienced higher academic gains in mathematics than eligible non-participants.	
Author (Year): Zimmer (2007) **Study Design (Suitability of Design):** Prospective data collection with concurrent comparison group (Greatest) **Quality of Execution:** Fair (3 limitations)	**Setting:** 9 large, urban school districts across the country **Study Period:** 2004-4005 school year **Quality of Execution:** Students belonging to low income families attending Title I schools in one of the 9 districts that are in Year 2 or beyond of school improvement and thus eligible for supplemental education services (SES).	**Intervention:** Supplementary Educational Services (SES)- federally mandated program, and provision of the No Child Left Behind Act, designed to raise student achievement via the provision of free tutoring programs. **Comparison:** Students identified as being eligible for SES who did not choose to use the option	**Data Analysis:** difference-in-differences approach using within-subject pre- and post-comparisons and comparisons between participating and non-participating students was used. All test scores were converted into rank-based z-scores by grade and year within each district. A meta-analysis was conducted that estimated average effects across all 9 districts. **Outcomes:** Reading Achievement and Math Achievement	A multidistrict meta-analysis indicated statistically significant average effects in both reading and math for participants in SES, with evidence that students participating for multiple years saw accumulating benefits in both subjects Gains for African-American students, Hispanic students, and students with disabilities were likewise positive, although the effect for students with disabilities in math was not statistically significant.	Math effect (Cohen's d): 0.09 Reading effect (Cohen's d): 0.08