 Dropout prevention programs are school- and community-based initiatives that aim to keep students in school and encourage them to complete their high school education. To be included in the What Works Clearinghouse (WWC) review, programs have to operate within the United States and include dropout prevention as one of their primary objectives. Programs that aim primarily to address risky behaviors correlated with dropping out—such as delinquency, drug use, and teen pregnancy—are not included. The reviewed programs provide a mix of services, such as counseling, monitoring, school restructuring, curriculum redesign, financial incentives, and community services to mitigate factors impeding academic success.

The review focused on three outcome domains: staying in school, progressing in school, and completing school. The WWC looked at 59 studies of 16 dropout prevention programs that qualified for our review. Of these, 16 studies of 11 programs met WWC evidence standards—7 without reservations and 9 with reservations. The five other programs did not have studies that met WWC evidence screens.

In looking at the three outcome domains for the 11 programs:

- **ALAS (Achievement for Latinos through Academic Success)** had potentially positive effects on staying in school and on progressing in school.
- **Career Academies** had potentially positive effects on staying in school and on progressing in school.
- **Check & Connect** had positive effects on staying in school and potentially positive effects on progressing in school.

Five other programs had potentially positive effects in one domain. Three had no discernible effects in any of the three domains.

**Dropout prevention in practice**

**Mentoring and monitoring students.** In a large urban high school, students at risk of dropping out are paired with “monitors,” who regularly assess their academic progress and intervene as soon as students appear to be struggling. Monitors work with students to identify social services in the community that will help them address problems that may be hindering their academic success. They also provide ongoing feedback and encouragement.

**Alternative high schools.** To reduce dropping out, students struggling academically in regular high schools can earn their diplomas and continue on to postsecondary education at a small alternative school on a community college campus. The school’s interdisciplinary curriculum focuses on developing critical thinking skills and providing individualized attention from a team of teachers. The school offers career-oriented courses and internships. Faculty and students have access to the college’s educational resources and facilities, and students can take college-level classes.

**Schoolwide restructuring.** Under another approach to dropout prevention, schools are reorganized into small “learning communities”—including ninth-grade academies for first-year students and career academies for those in upper grades—to reduce student isolation and anonymity. As part of the schoolwide restructuring, schools introduce a new curriculum that emphasizes high academic standards and provides all students with a college-preparatory academic sequence—with a focus on English and math instruction.

The findings in this topic report summarize the first wave of WWC dropout prevention intervention reports prepared in 2006–07. www.whatworks.ed.gov
**Absence of conflict of interest**

Several studies in the WWC review of dropout prevention programs were conducted by Mathematica Policy Research, Inc. (MPR). Because the principal investigator for the WWC review is an MPR staff member, these MPR studies were rated by staff from Caliber, an ICF International Company, which also prepared the corresponding intervention reports. These reports were then reviewed by MPR staff, as well as the WWC Technical Review Team and external peer reviewers.

**Intervention Ratings for Dropout Prevention**

Each dropout prevention program that had at least one study meeting WWC standards (with or without reservations) received a rating of effectiveness in one or more of the three outcome domains: staying in school, progressing in school, and completing school. The rating aims to characterize the evidence in a given domain, taking into account the quality of the research design, the statistical significance of the findings, the size of the difference between participants in the intervention and comparison conditions and the consistency in findings across studies.

The research evidence can be rated as positive, potentially positive, mixed, no discernible effects, potentially negative, or negative (see the WWC Intervention Rating Scheme). Table 1 shows the effectiveness ratings for the 11 dropout prevention interventions (empty cells indicate that no evidence was reported).

### Table 1  Effectiveness ratings for 11 dropout prevention programs in three domains

<table>
<thead>
<tr>
<th>Intervention name</th>
<th>Staying in school</th>
<th></th>
<th>Progressing in school</th>
<th></th>
<th>Completing school</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ALAS (Achievement for Latinos through Academic Success) (no website available)</td>
<td>![Rating]</td>
<td>Small</td>
<td>![Rating]</td>
<td>Small</td>
<td>![Rating]</td>
<td>Small</td>
</tr>
<tr>
<td>Financial Incentives for Teen Parents to Stay in School (no website available)</td>
<td>![Rating]</td>
<td>Moderate to large</td>
<td>![Rating]</td>
<td>Small</td>
<td>![Rating]</td>
<td>Moderate to large</td>
</tr>
<tr>
<td>High School Redirection (no website available)</td>
<td>![Rating]</td>
<td>Moderate to large</td>
<td>![Rating]</td>
<td>Moderate to large</td>
<td>![Rating]</td>
<td>Moderate to large</td>
</tr>
<tr>
<td>Middle College High School (<a href="http://www.mcnj.us">http://www.mcnj.us</a>)</td>
<td>![Rating]</td>
<td>Small</td>
<td>![Rating]</td>
<td>Small</td>
<td>![Rating]</td>
<td>Small</td>
</tr>
<tr>
<td>Twelve Together (no website available)</td>
<td>![Rating]</td>
<td>Small</td>
<td>![Rating]</td>
<td>Small</td>
<td>![Rating]</td>
<td>Small</td>
</tr>
</tbody>
</table>

Note: WWC intervention reports describe each program and provide information on the students, cost, and scope of use. To view the intervention reports, please click on the program name or go to www.whatworks.ed.gov. When available, websites offering additional information about the program are included after the program name.

**Key**

- Positive effects: strong evidence of a positive effect with no overriding contrary evidence
- Potentially positive effects: evidence of a positive effect with no overriding contrary evidence
- Mixed effects: evidence of inconsistent effects
- No discernible effects: no affirmative evidence of effects
- Potentially negative effects: evidence of a negative effect with no overriding contrary evidence
- Negative effects: strong evidence of a negative effect with no overriding contrary evidence
Average improvement indices
The WWC computes an average improvement index for each domain and each study as well as a domain average improvement index across studies of the same intervention (see the Technical Details of WWC-Conducted Computations).

The improvement index represents the difference between the percentile rank of the average student in the intervention condition and the percentile rank of the average student in the comparison condition. It can take on values between −50 and +50, with positive numbers denoting results favorable to the intervention group. Unlike the rating of effectiveness, which is based on four factors, the improvement index is based only on the size of the difference between the intervention and the comparison conditions.1

Staying in school
The staying in school domain includes measures of whether the student remained enrolled in school or dropped out of school without earning a high school diploma or GED certificate. We reviewed outcomes in this domain for seven dropout prevention programs, and the average improvement index ranged from −3 to +42 percentile points (figure 1).

Progressing in school
The progressing in school domain includes measures of credits earned, grade promotion, and whether the student is making normal progress toward graduation. We reviewed outcomes in this domain for nine programs, and the average improvement index ranged from −6 to +30 percentile points (figure 2).

Completing school
The completing school domain includes measures of whether the student earned a high school diploma or received a GED certificate. We reviewed outcomes in this domain for eight programs, and the average improvement index ranged from −3 to +17 percentile points (figure 3).

1. To enable comparisons across interventions, improvement indices are calculated from student-level findings. For further details please see Technical Details of WWC-Conducted Computations.
Table 2  Interventions reviewed with no studies meeting WWC evidence screens¹

<table>
<thead>
<tr>
<th>Project</th>
<th>Website/Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belief Academy</td>
<td>(no website available)</td>
</tr>
<tr>
<td>Coca-Cola Valued Youth Program</td>
<td>(<a href="http://www.idra.org/Coca-Cola_Valued_Youth_Program.htm">http://www.idra.org/Coca-Cola_Valued_Youth_Program.htm</a>)</td>
</tr>
<tr>
<td>National Guard Youth ChalleNGe Corps</td>
<td>(<a href="http://www.ngycp.org">http://www.ngycp.org</a>)</td>
</tr>
<tr>
<td>Project COFFEE</td>
<td>(<a href="http://www.oxps.org/NEW%20COFFEE%20II/newcoffee.htm">http://www.oxps.org/NEW%20COFFEE%20II/newcoffee.htm</a>)</td>
</tr>
<tr>
<td>Talent Development Middle Grades Program</td>
<td>(<a href="http://web.jhu.edu/CSOS/tdmg/index.html">http://web.jhu.edu/CSOS/tdmg/index.html</a>)</td>
</tr>
</tbody>
</table>

1. The table includes all eligible programs considered for the WWC dropout prevention review with no studies meeting evidence standards.

For more information about studies reviewed and WWC methodology, please see the Dropout Prevention Technical Appendices.
### Appendix A1  Extent of evidence

<table>
<thead>
<tr>
<th>Intervention name</th>
<th>Staying in school</th>
<th>Progressing in school</th>
<th>Completing school</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of studies</td>
<td>Sample size (schools/students)</td>
<td>Extent of evidence</td>
</tr>
<tr>
<td>ALAS (Achievement for Latinos through Academic Success)</td>
<td>1</td>
<td>1/94</td>
<td>Small</td>
</tr>
<tr>
<td>Career Academies</td>
<td>1</td>
<td>9/345</td>
<td>Small</td>
</tr>
<tr>
<td>Check &amp; Connect</td>
<td>2</td>
<td>nr/238</td>
<td>Small</td>
</tr>
<tr>
<td>Financial Incentives for Teen Parents to Stay in School</td>
<td>2</td>
<td>nr/1,819</td>
<td>Moderate to large</td>
</tr>
<tr>
<td>High School Redirection</td>
<td>3</td>
<td>3/1,634</td>
<td>Moderate to large</td>
</tr>
<tr>
<td>Middle College High School</td>
<td>1</td>
<td>1/394</td>
<td>Small</td>
</tr>
<tr>
<td>Project GRAD</td>
<td>0</td>
<td>0</td>
<td>na</td>
</tr>
<tr>
<td>Quantum Opportunity Program</td>
<td>0</td>
<td>0</td>
<td>na</td>
</tr>
<tr>
<td>Talent Development High Schools</td>
<td>0</td>
<td>0</td>
<td>na</td>
</tr>
<tr>
<td>Talent Search</td>
<td>0</td>
<td>0</td>
<td>na</td>
</tr>
<tr>
<td>Twelve Together</td>
<td>1</td>
<td>9/219</td>
<td>Small</td>
</tr>
</tbody>
</table>

**Notes:**
- *na* = not applicable/not studied
- *nr* = not reported

1. A rating of “moderate to large” requires at least two studies and two schools across studies in one domain and a total sample size across studies of at least 350 students or 14 classrooms. Otherwise, the rating is “small.”
## Appendix A2  Targeted population

<table>
<thead>
<tr>
<th>Intervention name</th>
<th>Students targeted by the intervention</th>
<th>Students in reviewed studies same as full target population?</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALAS (Achievement for Latinos through Academic Success)</td>
<td>Middle school students deemed at risk of dropping out; served throughout their three years of middle or junior high school</td>
<td>Yes</td>
</tr>
<tr>
<td>Career Academies</td>
<td>High school students; program originally served only at-risk students; now serves a more general student population</td>
<td>No. Studies reviewed focused only on at-risk students.</td>
</tr>
<tr>
<td>Check &amp; Connect</td>
<td>Middle and high school students deemed at risk of dropping out; served throughout their time in middle or high school</td>
<td>No. Studies reviewed focused only on high school students.</td>
</tr>
<tr>
<td>Financial Incentives for Teen Parents to Stay in School</td>
<td>Teen parents receiving cash assistance</td>
<td>Yes</td>
</tr>
<tr>
<td>High School Redirection</td>
<td>High school students who have dropped out or are considered at risk of dropping out</td>
<td>Yes</td>
</tr>
<tr>
<td>Middle College High School</td>
<td>High school students who have dropped out or are considered at risk of dropping out</td>
<td>Yes</td>
</tr>
<tr>
<td>Project GRAD</td>
<td>Serves all students in a participating high school, as well as its feeder elementary and middle schools</td>
<td>No. Studies reviewed focused only on high school students.</td>
</tr>
<tr>
<td>Quantum Opportunity Program</td>
<td>Students from high schools with high dropout rates; support provided for four to five years beginning in the ninth grade</td>
<td>Yes</td>
</tr>
<tr>
<td>Talent Development High Schools</td>
<td>School-wide reform serving all students in a participating high school</td>
<td>Yes</td>
</tr>
<tr>
<td>Talent Search</td>
<td>Low-income middle and high school students; middle and high school students whose parents did not earn high school degrees</td>
<td>No. Studies reviewed focused only on high school students.</td>
</tr>
<tr>
<td>Twelve Together</td>
<td>Middle and early high school students; serves a mix of those at high risk of academic failure as well as those at lower risk; services provided for one year</td>
<td>No. Studies reviewed focused only on middle school students.</td>
</tr>
</tbody>
</table>
## Characteristics of interventions

<table>
<thead>
<tr>
<th>Intervention name</th>
<th>Academic approach</th>
<th>Support services</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALAS (Achievement for Latinos through Academic Success)</td>
<td>Regular school curriculum supplemented with special classes on problem solving skills</td>
<td>Close monitoring of attendance, regular feedback to parents and students on performance, case management and counseling</td>
</tr>
<tr>
<td>Career Academies</td>
<td>School-within-a-school approach operating within a regular high school; coursework organized around a career theme</td>
<td>Internships and mentors from local employers that reinforce the specific career theme of the academy</td>
</tr>
<tr>
<td>Check &amp; Connect</td>
<td>Regular school curriculum supplemented with tutoring as needed</td>
<td>Close monitoring of attendance, mentoring, case management, and family outreach</td>
</tr>
<tr>
<td>Financial Incentives for Teen Parents to Stay in School</td>
<td>Does not include an academic component</td>
<td>Bonuses and sanctions applied to the welfare grant to encourage school attendance and improved academic performance; case management</td>
</tr>
<tr>
<td>High School Redirection</td>
<td>Alternative high school model focusing on basic skills acquisition, remedial reading instruction, and accelerated credit accumulation</td>
<td>Onsite child care, limited extracurricular activities</td>
</tr>
<tr>
<td>Middle College High School</td>
<td>Alternative high school operating on a college campus; college-preparatory curriculum emphasizing individualized attention and the development of critical thinking skills</td>
<td>Community service opportunities, internships, peer support, and specialized counseling</td>
</tr>
<tr>
<td>Project GRAD</td>
<td>Model uses regular school curriculum at the high school level; includes curriculum reforms at the elementary and middle school level focused on reading and math instruction</td>
<td>College scholarships for students performing well academically, six-week academic summer program on a college campus, counseling on college preparation and admissions</td>
</tr>
<tr>
<td>Quantum Opportunity Program</td>
<td>Regular school curriculum supplemented with tutoring, computer-assisted learning, and life skills instruction</td>
<td>Case management, mentoring, transportation assistance, child care, and financial incentives to promote participation</td>
</tr>
<tr>
<td>Talent Development High Schools</td>
<td>School restructured into small &quot;learning communities,&quot; curriculum emphasizes college preparation and reading and math instruction</td>
<td>Ongoing technical assistance and professional development for school staff</td>
</tr>
<tr>
<td>Talent Search</td>
<td>Regular school curriculum supplemented with tutoring and study skills assistance</td>
<td>Career exploration, aptitude assessment, academic advising, college campus visits, college and financial aid application assistance, assistance with preparing for college entrance exams</td>
</tr>
<tr>
<td>Twelve Together</td>
<td>Regular school curriculum supplemented with homework assistance</td>
<td>Weekly peer support sessions led by trained adult facilitators, college campus visits, social events</td>
</tr>
</tbody>
</table>

*WWC Topic Report: Dropout Prevention*  
*July 30, 2007*
## Appendix A4  Summary of statistically significant\(^1\) or substantively important\(^2\) positive findings

<table>
<thead>
<tr>
<th>Intervention name</th>
<th>Staying in school</th>
<th>Progressing in school</th>
<th>Completing school</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>statistically significant positive findings</td>
<td>Findings across outcomes</td>
<td>statistically significant positive findings</td>
</tr>
<tr>
<td><strong>ALAS (Achievement for Latinos through Academic Success)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Larson &amp; Rumberger, 2005 (randomized controlled trial)</td>
<td>Enrollment: end of grade 9</td>
<td>Statistically significant, substantively important</td>
<td>On track to graduate on time: end of 9th grade</td>
</tr>
<tr>
<td><strong>Career Academies</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kemple, 2004 (randomized controlled trial)</td>
<td>Dropped out of school</td>
<td>Statistically significant, substantively important</td>
<td>Total credits earned</td>
</tr>
<tr>
<td><strong>Check &amp; Connect</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sinclair, Christenson, Evelo, &amp; Hurley, 1998 (randomized controlled trial)</td>
<td>Dropped out of school</td>
<td>Statistically significant, substantively important</td>
<td>Credits earned</td>
</tr>
<tr>
<td>Sinclair, Christenson, &amp; Thurlow, 2005 (randomized controlled trial with attrition problems)</td>
<td>Dropped out of school</td>
<td>Statistically significant, substantively important</td>
<td>na</td>
</tr>
<tr>
<td><strong>Financial Incentives for Teen Parents to Stay in School</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long, Gueron, Wood, Fisher, &amp; Fellerath, 1996 (randomized controlled trial)</td>
<td>None</td>
<td>ns, nsi</td>
<td>None</td>
</tr>
<tr>
<td>Mauldon, Malvin, Stiles, Nicosia, &amp; Seto, 2000 (randomized controlled trial with attrition problems)</td>
<td>Dropped out of school</td>
<td>Statistically significant, nsi</td>
<td>na</td>
</tr>
<tr>
<td><strong>High School Redirection</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dynarski &amp; Wood, 1997—Stockton study (randomized controlled trial with control group crossover)</td>
<td>Number of days enrolled: year 1 Number of days enrolled: year 2</td>
<td>Statistically significant, substantively important</td>
<td>Total credits earned: end of year 4</td>
</tr>
<tr>
<td>Dynarski &amp; Wood, 1997—Wichita study (randomized controlled trial)</td>
<td>None</td>
<td>ns, nsi</td>
<td>None</td>
</tr>
<tr>
<td>Dynarski &amp; Wood, 1997—Cincinnati study (randomized controlled trial)</td>
<td>None</td>
<td>ns, nsi</td>
<td>na</td>
</tr>
</tbody>
</table>

(continued)
## Appendix A4  Summary of statistically significant\(^1\) or substantively important\(^2\) positive findings  
(continued)

<table>
<thead>
<tr>
<th>Intervention name</th>
<th>Staying in school</th>
<th>Progressing in school</th>
<th>Completing school</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistically significant positive findings</td>
<td>Findings across outcomes</td>
<td>Statistically significant positive findings</td>
</tr>
<tr>
<td><strong>Middle College High School</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dynarski, Gleason, Rangarajan, &amp; Wood, 1998 (randomized controlled trial)</td>
<td>None</td>
<td>ns, nsi</td>
<td>na</td>
</tr>
<tr>
<td><strong>Project GRAD</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Snipes, Holton, Doolittle, &amp; Sztejnberg, 2006 (quasi-experimental design)</td>
<td>na</td>
<td>na</td>
<td>None</td>
</tr>
<tr>
<td><strong>Quantum Opportunity Program</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schirm, Stuart &amp; McKie, 2006 (randomized controlled trial with differential attrition)</td>
<td>na</td>
<td>na</td>
<td>None</td>
</tr>
<tr>
<td><strong>Talent Development High Schools</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kemple, Herlihy, &amp; Smith, 2005 (quasi-experimental design)</td>
<td>na</td>
<td>na</td>
<td>Total credits earned: end of year 2</td>
</tr>
<tr>
<td><strong>Talent Search</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constantine, Seftor, Martin, Silva, &amp; Myers, 2006—Texas study (quasi-experimental design)</td>
<td>na</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td>Constantine, Seftor, Martin, Silva, &amp; Myers, 2006—Florida study (quasi-experimental design)</td>
<td>na</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td><strong>Twelve Together</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dynarski, Gleason, Rangarajan, &amp; Wood, 1998 (randomized controlled trial with differential attrition)</td>
<td>Dropped out of school</td>
<td>ns, Substantively important</td>
<td>None</td>
</tr>
</tbody>
</table>

ns = not statistically significant  
nsi = not substantively important  
na = not studied

1. According to WWC criteria, if a program finds a statistically significant effect, there is less than a 5% chance that this difference is due to chance. The level of statistical significance was calculated by the WWC and, where necessary, corrects for clustering within classrooms or schools and for multiple comparisons. For an explanation about the clustering comparison, see the WWC Tutorial on Mismatch. For the formulas the WWC used to calculate statistical significance, see the Technical Details of WWC-Conducted Computations.

2. For rating purposes, the WWC considered the statistical significance of the findings and the magnitude of the effect, also called the effect size. An average effect size is the sum of all the effect sizes of the student outcomes in a study in a single domain divided by the number of those outcomes. The WWC considers an average effect size across all student outcomes in one study in a given domain to be substantively important if it is equal to or greater than 0.25.
Fifty-eight studies provided data on 16 dropout prevention interventions and were classified for the strength of their design. To be fully reviewed, a study had to be a randomized controlled trial or a quasi-experimental design with evidence of equating between the treatment and comparison groups.

Evidence screens
Quasi-experiments eligible for review include those equating through matching or statistical adjustment, regression discontinuity designs, and single case designs. No studies based on the latter two types of designs were identified for the dropout prevention review. We are currently developing evidence standards for regression discontinuity designs and single case designs.

The review considered the properties of measurement instruments, the percentage of students, classrooms, or schools in the study sample that were not included in the reported results, and any sample characteristics or events that might serve as alternative explanations for the observed effect. For details please see the WWC Evidence Standards. Long-term outcomes were preferred over immediate outcomes for inclusion in our analysis of program effects.

The research evidence for programs that have at least one study meeting WWC evidence standards with or without reservations is summarized in individual intervention reports posted on the WWC website. See http://www.whatworks.ed.gov. So far, 16 studies of 11 dropout prevention interventions have met evidence standards with or without reservations. The lack of evidence for the remaining programs does not mean that those programs are ineffective; some programs have not yet been studied using a study design that permits the WWC to draw any conclusions about their effectiveness. And for some studies, not enough data were reported (such as descriptive statistics of the findings) to enable us to confirm statistical findings.

Rating of effectiveness
Each dropout prevention intervention that had at least one study meeting WWC standards with or without reservations received a rating of effectiveness in at least one outcome domain. The rating of effectiveness aims to characterize the existing evidence base in a given domain. The intervention effects based on the research evidence can be rated as positive, potentially positive, mixed, no discernible effects, potentially negative, or negative.

The rating of effectiveness takes into account four factors: the quality of the research design, the statistical significance of the findings, the size of the difference between participants in the intervention and the comparison conditions, and the consistency in findings across studies (see the WWC Intervention Rating Scheme).

The level of statistical significance was reported by the study authors or, where necessary, calculated by the WWC to correct for clustering within classrooms or schools and for multiple comparisons. Because of these corrections, the level of statistical significance as calculated by the WWC may differ from the one originally reported by the study authors. For an explanation, see the WWC Tutorial on Mismatch. For the formulas that we used to calculate statistical significance, see Technical Details of WWC-Conducted Computations. If the average effect size across all outcomes in one study in a single domain is at least 0.25, it is considered substantively important, contributing toward the rating of effectiveness. See the technical appendices of the dropout prevention intervention reports for further details.

Extent of evidence
The evidence base rating represents the size and number of independent samples that were assessed for the purposes of analysis of the program effects. A “moderate/large” evidence base requires at least two studies and two schools across studies within one domain, and a total sample size across studies of at least 350 students or 14 classrooms. Otherwise, the evidence is considered to be “small”. The WWC is currently working to define a “large” evidence base. This term should not be confused with external validity, as other facets of external validity—such as variations in settings, important subgroups of
students, implementation, and outcomes measures—were not taken into account for the purposes of this rating.

**Improvement index**

The WWC computes an improvement index for each individual finding. In addition, within each outcome domain, the WWC computes an average improvement index for each domain and each study as well as a domain average improvement index across studies of the same intervention (see the [Technical Details of WWC-Conducted Computations](#)). The improvement index represents the difference between the percentile rank of the average student in the intervention condition and the percentile rank of the average student in the comparison condition. The improvement index can take on values between −50 and +50, with positive numbers denoting results favorable to the intervention group. Unlike the rating of effectiveness, the improvement index is based only on the size of the difference between the intervention and the comparison conditions.
**Appendix A6 References**

**Met WWC standards**

**ALAS (Achievement for Latinos through Academic Success)**

**Additional sources:**

**Career Academies**

**Additional sources:**

**Check & Connect**

**Additional sources:**

**Financial Incentives for Teen Parents to Stay in School**

**Additional sources:**

**High School Redirection**

**Wichita study**

**Additional sources:**

**Cincinnati study**

**Additional sources:**


**Middle College High School**

**Additional sources:**


**Met WWC standards with reservations**

**Check & Connect**

**Additional source:**

**Financial Incentives for Teen Parents to Stay in School**

**High School Redirection: Stockton study**

**Additional sources:**


**Project GRAD**

**Houston Study**

**Quantum Opportunity Program**
**Additional sources:**

**Talent Development High Schools**

**Additional source:**

**Talent Search**
*Texas Study*

*Florida Study*

**Twelve Together**

**Additional sources:**

**Did not meet evidence screens**

**Belief Academy**
Appendix A6
References

Career Academies

Additional source:


Additional sources:


Additional sources:


Additional sources:


Check & Connect

Appendix A6 References (continued)

**Connect model.** *Journal of Education for Students Placed At-Risk, 9*(3), 279–301.

**Additional sources:**


**Coca-Cola Valued Youth Program**


**High School Redirection**


**Middle College High School**


**National Guard Youth ChalleNGe Corps**


**Project COFFEE**

Appendix A6

References (continued)

Fort Totten Study

Fort Berthold Study

Fort Yates Study

Project GRAD

Atlanta study

Columbus study

Quantum Opportunity Program

Talent Development High Schools


Talent Development Middle Grades


Appendix A6
References
(continued)

Center for Research on the Education of Students Placed At Risk (CRESPAR).\(^5\)

Plank, S., & Young, E. (2000). Lessons for scaling up: Evaluations of the Talent Development Middle School’s student team literature program. Baltimore: Johns Hopkins University, Center for Research on the Education of Students Placed At Risk (CRESPAR).\(^5\)

**Talent Search**


**Indiana study**


**Twelve Together**


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1. The study also analyzed students served by ALAS who had learning disabilities or who were classified as emotionally disturbed. This analysis did not meet WWC standards because it was a quasi-experimental design with pretest differences between the participant and comparison groups that were not controlled in the analysis.

2. This analysis focused on a subsample of the initially randomly assigned sample (81 of 94 students). It meets WWC standards with reservations because different rules were used to exclude students from the treatment group and the control group. Here, the additional study is treated as a subgroup analysis, which does not affect the intervention rating of effectiveness.

3. Lack of evidence for baseline equivalence: the study, which used a quasi-experimental design, did not establish that the comparison group was equivalent to the intervention group at baseline.

4. Severe overall attrition: the study, which used a quasi-experimental design, lost a large proportion of its sample from the pretest to the posttest.

5. The outcome measures are not relevant to this review.

6. The sample is not appropriate to this review: the study did not include middle school or high school students.

7. Does not use a strong causal design: the study did not use a comparison group.

8. Does not use a strong causal design: the study used a nonequivalent comparison group.

9. Does not use a strong causal design: there was only one intervention school, so the analysis could not separate the effect of the intervention from other factors.

10. The study, which began as a randomized controlled trial, allowed for the replacement of subjects who left the program, creating a quasi-experimental design. The study also had high attrition rates, so it did not pass WWC evidence screens.