



2007 Academic Follow-up Study of Cool Girls, Inc.

Data from School District A

Georgia State University Evaluation Team

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Contents

Executive Summary

Section 1: Introduction and Overview

Section 2: How do Cool Girls perform academically?

Section 3: How do Cool Girls perform academically up to six years after involvement in Cool Girls programs?

Section 4: Does level of participation in Cool Girls programs make a difference in later academic achievement?

Section 5: Does having a Cool Girl sister make a difference in later academic achievement?

Technical Appendix



Executive Summary

Executive Summary

This is one of three reports summarizing results of the Academic Follow-Up Study of Cool Girls, Inc. The findings reported here are based on data from one of two school districts served by Cool Girls. Additional reports will focus on data from 1) a second school district, and 2) a series of qualitative interviews conducted with past Cool Girls participants. The findings reported here draw on evaluation data collected since 1999, the registration records of Cool Girls Inc., and official school records. We assessed long-term effects of participating in Cool Girls with regard to grades and standardized test scores. Participants in the sample included girls in grades 1-12 who were either Cool Girls members (the participant group), or who were not in Cool Girls but attended school or participated in non-Cool Girls activities at a Cool Girls site (comparison group).

Using archival data from school district records, statistical analyses were conducted to document the differences between Cool Girls and comparison girls from 0 years of follow-up through more than 6 years of follow-up. Data were analyzed assessing Cool Girl participants and a demographically matched comparison group. Comparisons were made of girls followed up 0 to 2 years, 3-5 years, and 6 or more years following their initial participation. Additional comparisons were made of girls based on their level of involvement within Cool Girls, including the extent to which they attended Girls Club sessions regularly, and whether they were matched with a Cool Sister (mentor).

We were able to conduct analysis of standardized test scores with a total of 486 participants, including 339 Cool Girls and 147 Comparisons. For analysis of school grades, we were able to conduct analyses with 429 participants, including 294 Cool Girls and 135 comparison girls. We conducted a series of statistical analyses designed to answer questions about whether participating in Cool Girls, Inc. programs has an effect on subsequent academic performance 1 to 6+ years later.

Overall, the results suggest that participation in Cool Girls is associated with improvements in academic performance over multiple years following their participation. Results of specific sets of analyses addressing questions that led to this conclusion are summarized below:

1. How do Cool Girls perform academically?

We began by looking at the data as a whole and compared Cool Girls with Comparisons on a range of measures of academic performance, including school grades and standardized test scores. Results of these analyses are presented in Section 2.

Overall, the results indicate that **Cool Girls earn higher grades and perform better on standardized tests than Comparisons**. Cool Girls earned a higher grade point average and earned significantly higher Math grades than comparisons. In addition, Cool Girls were significantly more likely than comparisons to pass standardized tests in Math, and marginally more likely to pass standardized tests in English/Language Arts.

2. How do Cool Girls perform academically up to six years after involvement in Cool Girls programs?

Here, we examined whether differences in the academic performance of Cool Girls and Comparisons varied as a function of the length of follow-up (i.e., the number of years that elapsed between entering the study and the year of follow up). Results of these analyses are presented in Section 3.

Overall, the results indicate that **Cool Girls perform better academically than comparisons at short-term follow up (up to 2 years), with fewer differences at longer follow up periods**. Interestingly differences in standardized test scores were generally not present through 1 year follow up but appeared at about 2 years, suggesting the possibility that participation in Cool Girls confers an advantage to young women for academic success for at least 2 years after they entered the program. It should be noted, however, that each follow-up period represents a distinct cohort of participants. This means that

differences in academic performance within each cohort might explain the findings regardless of participation in Cool Girls.

3. Does level of participation in Cool Girls programs make a difference in later academic achievement?

Next, we looked at the extent of involvement in Cool Girls as a factor contributing to improvements in academic performance. We used a subset of the participants for whom we had attendance data to compare the academic performance of young women who were classified during their participation in Cool Girls as “High Attenders” (attended at least 70% of sessions), those who were classified as “Low Attenders” (attended fewer than 70% of sessions), and Comparisons.

These findings indicate that **consistent attendance in Cool Girls programs was related to somewhat better academic performance**. High attending Cool Girls earned higher grades and were significantly more likely than comparisons to pass the standardized tests in English/Language Arts and Math. However, Low attending Cool Girls were only somewhat more likely than comparisons to pass the standardized tests in English/Language Arts and Math.

4. Does having a Cool Sister make a difference in later academic achievement?

Finally, we examined whether being matched with a Cool Sister contributes to improvements in academic performance. For these analyses we compared Cool Girls with and without Cool Sisters to Comparisons. Results of these analyses are presented in Section 4.

Overall, the results indicated that **Cool Girls with a Cool Sister performed better academically than Comparisons regardless of whether academic performance was measured in terms of grades or standardized tests**. Cool Girls who were not matched with a mentor showed a tendency to outperform Comparisons, but in only a limited number of comparisons.



Section 1:
Introduction and Overview

Introduction and Overview

The Psychology Department at Georgia State University has conducted a yearly evaluation of Cool Girls Inc. since the fall of 1999. Until 2007, the evaluation focused on documenting short-term outcomes for program participants over the course of a single school year. The current evaluation represents a shift in focus to address questions about the long-term effects of participation in Cool Girls in the areas of academics/professional development, health/wellbeing, and interpersonal relationships/social support. The overall evaluation consists of two parts: 1) an academic follow-up study of school records of past participants and comparisons, and 2) an interview study of past participants. For part one, the researchers submitted lists of past Cool Girls participants and non-Cool Girls who had previously completed the evaluation but were not program participants. Lists of names were provided to two school districts (District A and District B) during the 2006-2007 school year. The school districts, in turn, provided de-identified data on subsequent school performance for all students they were able to match with their records. The present report summarizes findings from analysis of data from District A.

Historical Overview of Cool Girl Evaluations

Over the years, the evaluation team has used a combination of quantitative and qualitative methods, including questionnaires, interviews and focus groups to collect the bulk of the data. The original evaluation focused on the four program areas identified by program staff as most important: (1) decision-making skills, (2) academic achievement, (3) health/wellness/nutrition, and (4) awareness of life opportunities. In 2000-01, the focus expanded to include assessments of other Cool Girls components, including: (5) field trips, (6) Cool Tech, and (7) Cool Sisters. Modifications have been made in each year of the evaluation in an effort to better capture the areas in which Cool Girls seeks to facilitate girls' development. In 2003-04, following the development of a new program *Theory of Change*, two major revisions were made, focusing on a) assessing the extent of girls self-determination and intrinsic motivation to succeed in school, and b) assessing girls' help seeking orientation in the domains of academics, decision-making, and problem solving). Historically, the report focused on program areas 1-6 (described above).

Academic Follow-up in District A

This evaluation draws on the evaluation data since 1999, the registration records of Cool Girls Inc., and official school records to conduct a follow-up study of Cool Girls Inc. This follow-up study assesses long-term effects of participating in Cool Girls with regard to grades, test scores, and graduation. Participants in the sample included girls in grades 1-12 who were either Cool Girls members (the participant group), or who were not in Cool Girls but attended school or participated in non-Cool Girls activities at a Cool Girls site (comparison group).

Using archival data from school district records, statistical analyses were conducted to document the differences between Cool Girls and comparison girls from 0 years of follow-up through more than 6 years of follow-up. Data were analyzed assessing Cool Girl participants and a demographically matched comparison group of girls who did not participate in Cool Girls. In addition to overall comparisons of Cool Girls and Comparisons, comparisons were made of girls followed up 0 to 2 years, 3-5 years, and 6 or more years following their initial participation. Additional comparisons were made of girls based on their level of involvement within Cool Girls, including the extent to which they attended Girls Club sessions regularly, and whether they were matched with a Cool Sister (mentor).

Participants

This section summarizes information about participants in the evaluation. We describe 1) the sample sizes for statistical analysis (i.e., the number of Cool Girls and Comparisons with available data); 2) the year of participation; 3) grade level when participated; 4) the academic year used for follow-up; 5) length of follow-up (the number of years that elapsed between participation and the year for which follow-up data were obtained); and 6) descriptive information about the sample.

Sample Size. Table 1.1 summarizes the number of Cool Girls and Comparisons included in the analyses. A total of 535 names were submitted to the School District A research office. These included 376 names of current and former Cool Girls participants, and 159 girls who were not in Cool Girls but had participated in the evaluation as comparisons in prior years. The school district was able to match a large percentage of these names with their records and provide data on academic performance. We were able to conduct analysis of standardized test scores with a total of 486 participants, including 339 Cool Girls and 147 Comparisons. For analysis of school grades, we were able to conduct analyses with 429 participants, including 294 Cool Girls and 135 comparison girls. Note that sample sizes vary for specific analyses (e.g., fewer students took Science classes than Math or English).

Table 1.1: Participants in the 2004-05 Evaluation

	Submitted to School District	Available Data on Standardized Tests	% Available for Standardized Tests	Available Data on School Grades	% Available for School Grades
Cool Girls (CG) Total	376	339	90.2%	294	79.0%
High Attending CG	74	73	98.6%	66	89.2%
Low Attending CG	91	85	93.4%	74	81.3%
CG with Cool Sister	60	57	95.0%	54	90.0%
Comparison Girls Total	159	147	92.5%	135	83.0%

In addition to overall information about the number of Cool Girls and Comparisons that were available for analysis, Table 1.1 also shows the numbers of available Cool Girls for whom we had information about the extent to which they attended Girls Club sessions during their participation in Cool Girls. Girls were classified as being “High Attenders” if they attended at least 70% of the sessions during an academic year and were classified as “Low Attenders” if they attended fewer than 70% of sessions.

Year of Participation. Table 1.2 summarizes the number of Cool Girls and Comparisons in the study by their year of participation.¹ It is noteworthy that about 70% of the Comparisons were drawn from the latter four years (2003-2007), compared to 60% of Cool Girls. It is also notable that most of the Cool Girls for whom attendance information was available were drawn from the years 2003-2006. The fact that Comparisons were likely to have entered the evaluation in more recent years is purely an ‘artifact’ (or side-effect) of the way participants were sampled. Because this difference might influence the results, it was statistically controlled in all subsequent analyses.

Table 1.2: Number of Cool Girls and Comparisons by Year of Participation.

Year of Participation	Comparisons	Cool Girls
1999-2000	0	27
2000-2001	21	16
2001-2002	3	17
2002-2003	12	47
2003-2004	19	42

¹ Hereafter, we will refer to the year of participation or the year entered the study as the year in which our records indicate that girls either began their participation in Cool Girls, or entered the evaluation as Comparisons.

2004-2005	10	56
2005-2006	23	56
2006-2007	47	32

Grade Level when Entered Study. Table 1.3 summarizes the grade level at which Cool Girls or Comparisons entered the study. It is notable that because yearly evaluations have been limited to girls in grades 4 or higher, Comparisons are, on average, older than Cool Girls. The fact that Comparisons were somewhat older than Cool Girls is purely an 'artifact' (or side-effect) of the way participants were sampled. Because this difference might influence the results, grade level at entry was statistically controlled in all subsequent analyses.

Table 1.3: Grade Level at which Cool Girls and Comparisons entered the Study.

Grade Level	Comparison	Cool Girl
1 through 3	0	51
4	25	34
5	26	36
6	44	104
7	29	59
8	11	8

Academic Year of Follow-up. The school district was asked to provide the most recent information available on the academic performance of study participants. In most cases, information was provided for the 2006-2007 academic year (87.4% of Comparison Group data and 82.3% of Cool Girls data). Information was provided for earlier years if students graduated (9.8% of cases), transferred to a different school system (16.3% of cases), left the school because of problems, such as incarceration, pregnancy, or lack of attendance (2.1% of cases), or unknown reasons (<1% of cases).

Table 1.4: Academic Year for which Follow-up Data were Recorded.

Academic Year	Comparison	Cool Girl
2002-2003	2	2
2003-2004	0	12
2004-2005	5	24
2005-2006	10	14
2006-2007	118	242

Length of Follow-up. On average, the number of years that elapsed between initial participation and the follow-up for analysis of school grades was 4.4 years (with a standard deviation of 2.1 years). For purposes of analysis, we created three groups including those whose length of follow up was 0 thru 2 years, 3 through 5 years, and 6 or more years. A follow up period of 0 years indicates that the follow up data were from the same academic year in which a student entered the study; a follow up period of one year indicates that the follow up data were from 1 academic year after a student entered the study. The number of Cool Girls and Comparisons in each group is summarized in Table 1.5.

Table 1.5. Length of Follow-up for Analysis of School Grades

Length of Follow-up	Comparison	Cool Girl
0-2 years	49	51

3-5 years	53	145
6 or more years	33	98

The number of years between initial participation and the follow-up for analysis of standardized test scores averaged 1.6 (with a standard deviation of 1.6 years). For purposes of analysis we created two groups including those whose length of follow up was 0 through 1 years and 2 or more years. The number of Cool Girls and Comparisons in each group is summarized in Table 1.6.

Table 1.6. Length of Follow-up for Analysis of Standardized Test Scores

Length of Follow-up	Comparison	Cool Girl
0-1 years	100	179
2 or more years	47	161

Descriptive Data on Participants. Participants entered the study on average between the 5th and 6th grades. Because annual evaluations were limited to grades 4-8, there were no Comparisons who entered the study prior to grade 4. Not surprisingly, comparisons were somewhat older than Cool Girls, having entered the study at grade 5.8 on average (standard deviation = 1.2 years); Cool Girls entered the study at grade 5.2 on average (standard deviation = 1.7 years). At the follow-up, Cool Girls were at grade 8.7 (standard deviation = 1.8 years) and Comparisons were at grade 8.6 (standard deviation = 2.2 years). Overall, the length of follow-up is shorter for Comparisons (3.9 years, standard deviation = 2.1 years) than for Cool Girls (4.6 years, standard deviation = 2.1 years), which reflects the fact that most of the Comparisons entered the study after 2003.

Data Analysis and Reporting of Results

In the sections that follow, we present results of a series of statistical analyses designed to answer questions about whether participating in Cool Girls, Inc. programs has an effect on subsequent academic performance 1 to 6+ years later. We do this by comparing the academic performance of Cool Girls to that of Comparisons. We begin by looking at the data as a whole and ask whether Cool Girls perform better than Comparisons on a range of measures of academic performance, including school grades and standardized test scores. Results of these analyses are presented in Section 2.

We next turn to more fine tuned analyses that allow us to examine whether differences in the academic performance of Cool Girls and Comparisons differ as a function of the length of follow-up (i.e., the number of years that elapsed between entering the study and the year of follow up). Results of these analyses are presented in Section 3.

Additional analyses focus on the extent of involvement in Cool Girls as a factor contributing to improvements in academic performance. First, using a subset of the participants for whom we had attendance data, we compare the academic performance of young women who were classified during their participation in Cool Girls as “High Attenders” (attended at least 70% of sessions), those who were classified as “Low Attenders” (attended fewer than 70% of sessions), and Comparisons. Second, we examine whether being matched with a Cool Sister contributes to improvements in academic performance. For these analyses we compare Cool Girls with and without Cool Sisters to Comparisons. Results of these analyses are presented in Section 4.

Technical Notes

Reporting of Results. Throughout the report, we strive to present findings in a straightforward and non-technical manner. In presenting each finding, we begin with a brief summary and then provide additional detail, usually in the form of a graph accompanied by a brief explanation of its interpretation. Additional technical details of the analysis can be found in a technical appendix at the end of the report.

Potential for Selection Bias. The logic of the evaluation design involves comparing changes that actually occur in Cool Girls participants with the best possible estimate of what would have changed or not changed in the absence of Cool Girls. The ‘gold standard’ for this type of evaluation is to randomly

assign individuals to either participate in Cool Girls or not, and then to compare outcomes between those two groups. We were not able to randomly assign individuals to such groups for this evaluation, and instead worked to identify a comparison group of girls who were *as similar as possible* to the Cool Girls participants. This strategy introduces a potential for *selection bias*, or some unknown factor that not only causes girls to 'choose' to participate in Cool Girls (and others to make a different choice) but also might influence the extent of changes in their behavior over the course of a school year. For example, girls who are motivated to please adults may be more likely than other girls to join Cool Girls and more likely to attain good grades. Their ability to make good grades may have little to do with program participation. Unfortunately, there is no way to know for sure how much selection bias is present and therefore, no perfect way to remove or control for it. Some steps can, however, be taken to assess selection bias due to *measured* factors and reduce their effects. We examined differences among girls matched from school records and found that Comparisons were older than Cool Girls at entry into the study, and tended to enter the study at a later date. These differences were statistically controlled in all analyses. Specifically, in analyses of school grades, we used a procedure called Analysis of Covariance (ANCOVA); in analysis of standardized test scores, we used a procedure called logistic regression. Both procedures allowed us to adjust our estimates of the effects of Cool Girls taking into account known selection factors that could bias the results.

Statistical Significance. Findings are reported as significant if the tests indicated a degree of confidence of 90% or more. In other words, truly non-significant findings would appear as significant only 10 times out of 100. Although social scientists traditionally use a significance level with 95% confidence, many have argued that 90% confidence is more appropriate in program evaluation work, particularly when sample sizes are modest and even small effect sizes might have strong practical significance. We also note findings as marginally significant if the tests indicated a degree of confidence of 85% or more, however, we qualify our interpretation of such findings using terms such as "tended to be different" or "somewhat greater/less." A final note related to statistical significance relates to analyses conducted on specific subgroups (e.g., participants with and without Cool Sisters). These subgroup analyses are conducted on smaller samples than the primary analyses in which all participants are included in the same analysis. A consequence of limited sample size is that statistical tests on subgroups are less powerful, meaning that these tests are less able to detect group differences even if when differences are present.



Section 2:
How do Cool Girls perform academically?

Do Cool Girls earn better grades than comparisons?

Assessment

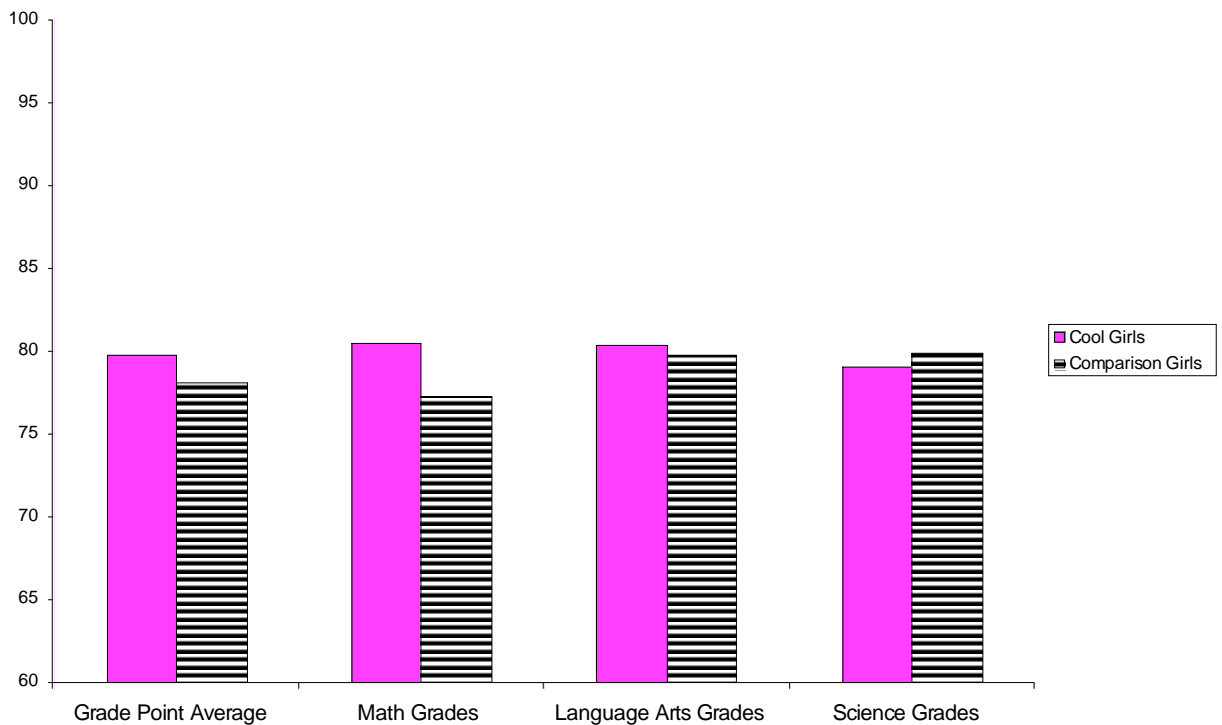
We examined differences between Cool Girls and comparisons on overall grade point average, Math, Language/Arts, and Science grades. Grades were on a percentage scale and ranged from 0-100.

Findings

Cool Girls had a significantly higher grade point average than comparisons. Additionally, Cool Girls had significantly higher Math grades. Whereas Cool Girls had higher grades for Language/Arts, the difference did not reach statistical significance. Cool Girls and comparisons did not differ on Science grades.

Note: See Table A2 in the technical notes for detailed results.

Comparison of Grades for Cool Girls and Comparison Girls



Do Cool Girls perform better on standardized tests than comparisons?

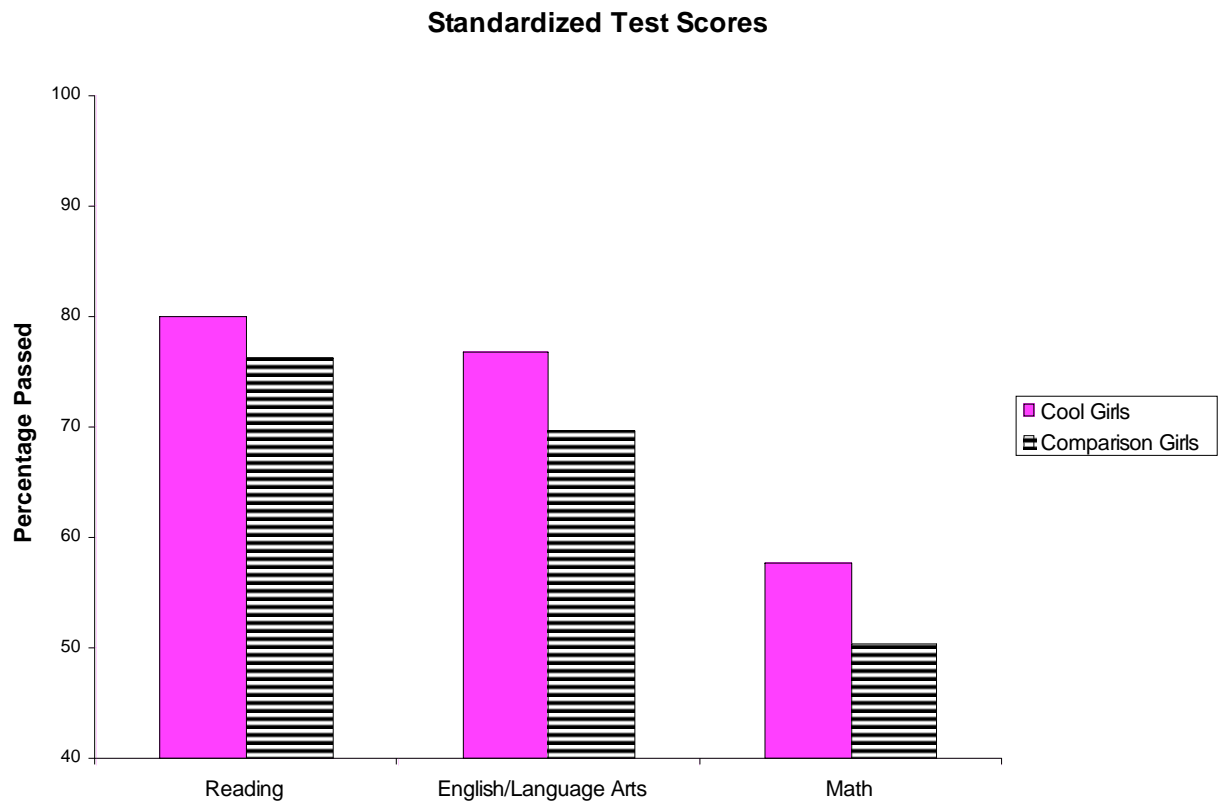
Assessment

We examined differences between Cool Girls and comparisons on their likelihood of passing the standardized Criterion-Referenced Competency Tests (CRCT) in Reading, English/Language Arts, and Math. Because these tests used different scales depending on the grade at which they were taken, we evaluated only whether or not students achieved the established criterion score. We show the percentage of students passing each test.

Findings

Cool Girls were 34% to 46% more likely than comparisons to pass standardized tests. Statistical tests showed that Cool Girls were significantly more likely than comparisons to pass the standardized tests in Math and marginally more likely to pass in English/Language Arts.

Note: See Table A3 in the technical notes for detailed results.



Overall Conclusions - How do Cool Girls perform academically?

Overall, the results indicate that Cool Girls earn higher grades and perform better on standardized tests than Comparisons. Cool Girls earned a higher grade point average and earned significantly higher Math grades than comparisons. In addition, Cool Girls were significantly more likely than comparisons to pass standardized tests in Math, and marginally more likely to pass standardized tests in English/Language Arts.



Section 3:
**How do Cool Girls perform academically
up to six years after involvement in Cool
Girls programs?**

Do Cool Girls earn higher grades than comparisons at 0-2, 3-5, and 6 or more years of follow-up?

Assessment

We examined differences between Cool Girls and comparisons on overall grade point average, Math, Language/Arts, and Science. Grades were on a percentage scale and ranged from 0-100. Differences were assessed for three follow-up periods:

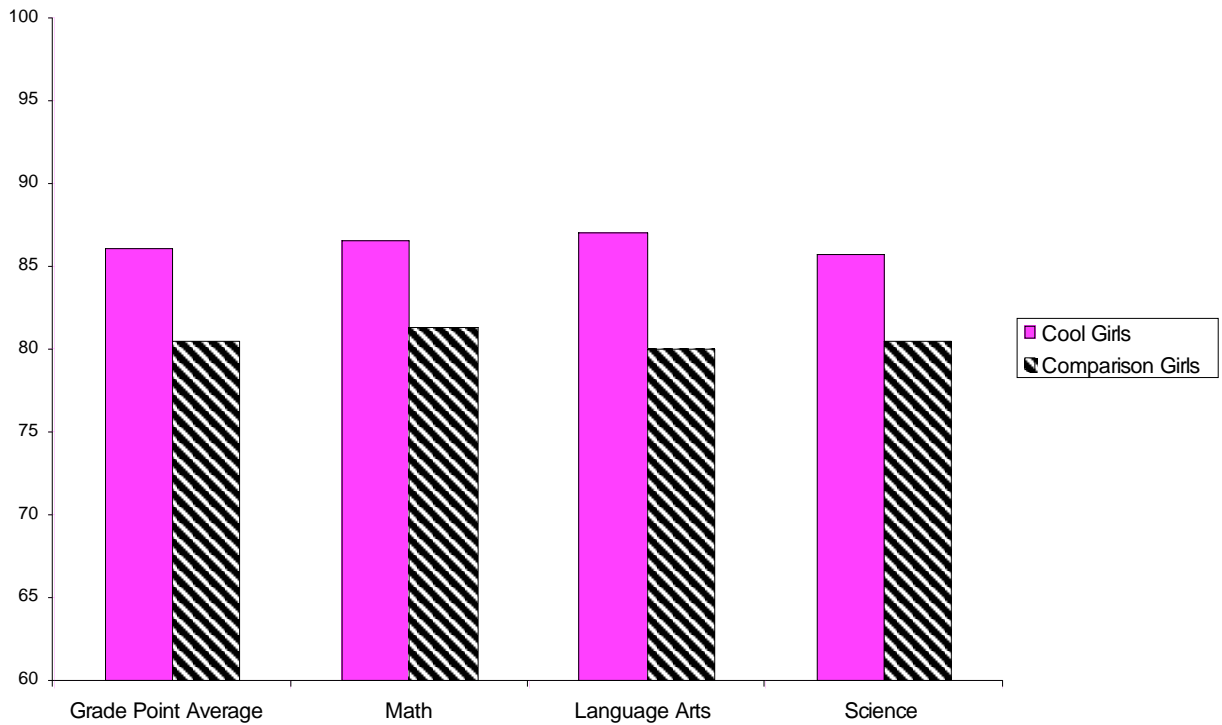
- 0-2 years of follow-up
- 3-5 years of follow-up
- 6 or more years of follow-up

Findings

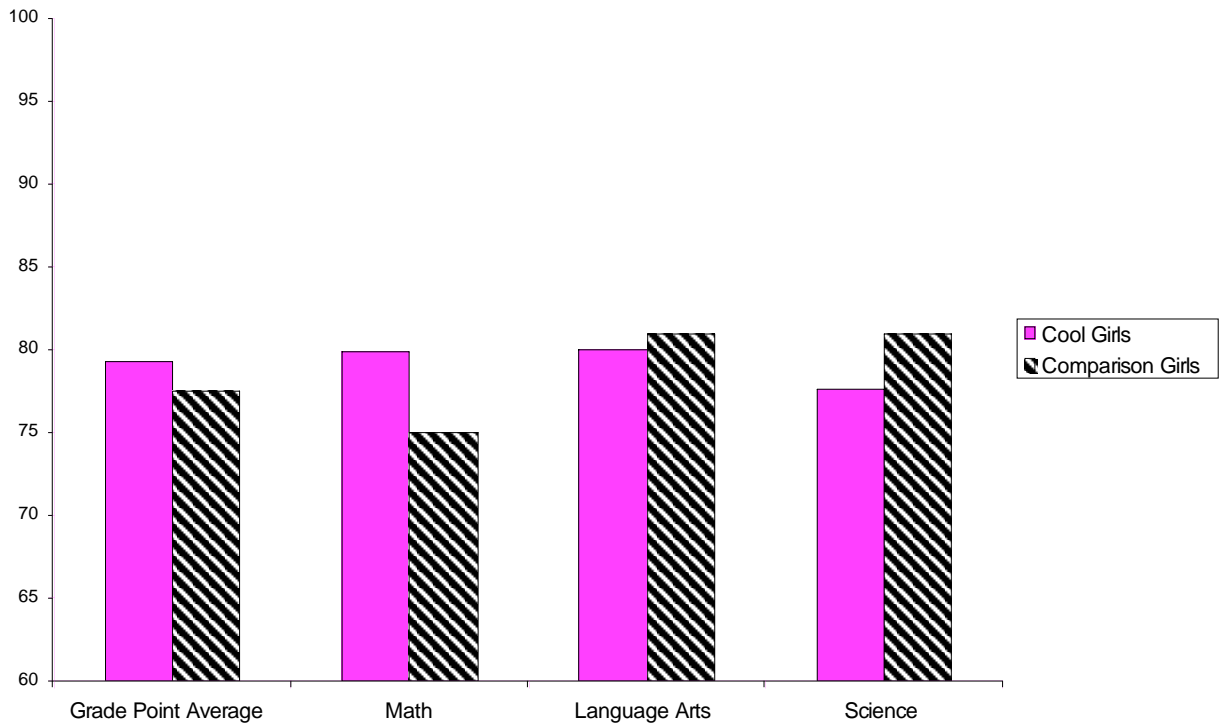
Cool Girls had a significantly higher overall grade point average and earned higher Math, Language/Arts, and Science grades than comparisons at the 0-2 year follow-up period. Additionally, Cool Girls earned marginally higher Math grades than comparison girls at the 3-5 year follow-up. There were no other significant differences between Cool Girls and comparisons for the 3-5 or 6 or more year follow-up period.

Note: See Table A4 in the technical notes for detailed results.

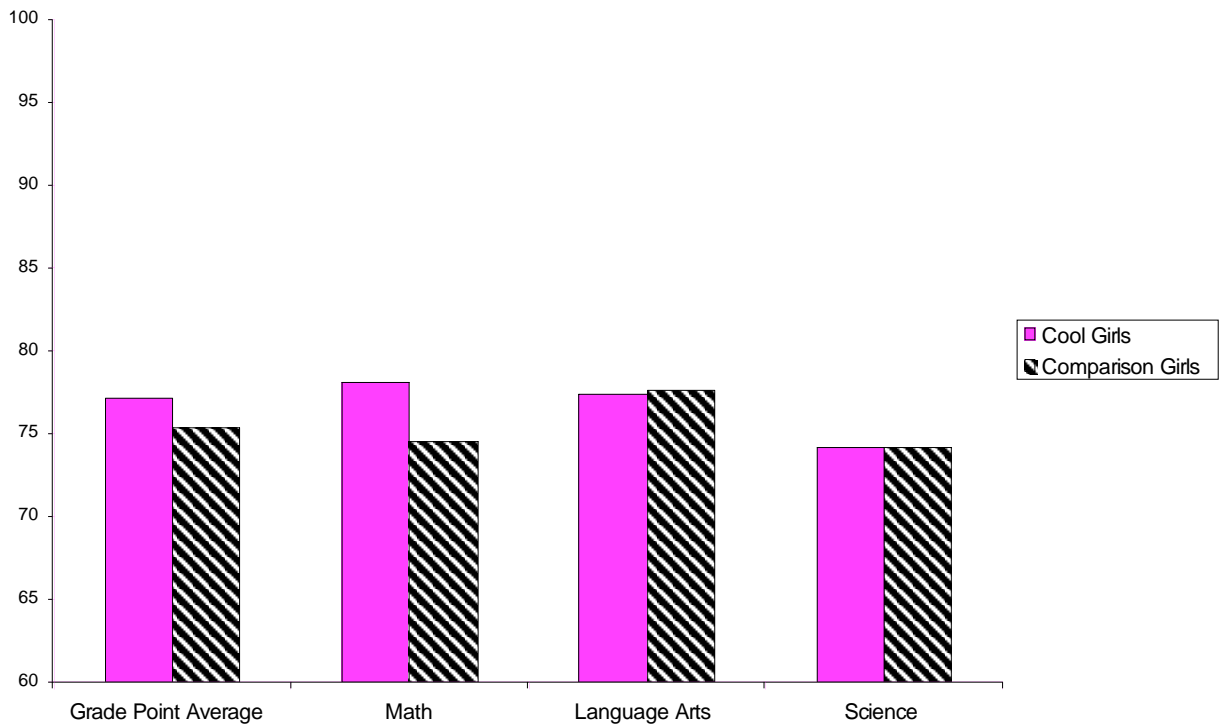
Grades: 0 - 2 Years Follow-Up



Grades: 3 - 5 Years Follow-Up



Grades: 6 + Years Follow-Up



Do young women who participate in Cool Girls perform better on standardized tests than comparisons at 0-1 and 2 or more years of follow-up?

Assessment

We examined differences between Cool Girls and comparisons on their likelihood of passing the standardized Criterion-Referenced Competency Tests (CRCT) in Reading, English/Language Arts and Math. Because these tests used different scales depending on the grade taken, we evaluated only whether or not students achieved the established criterion score. We show the percentage of students passing each test. Differences were assessed for two follow-up periods:

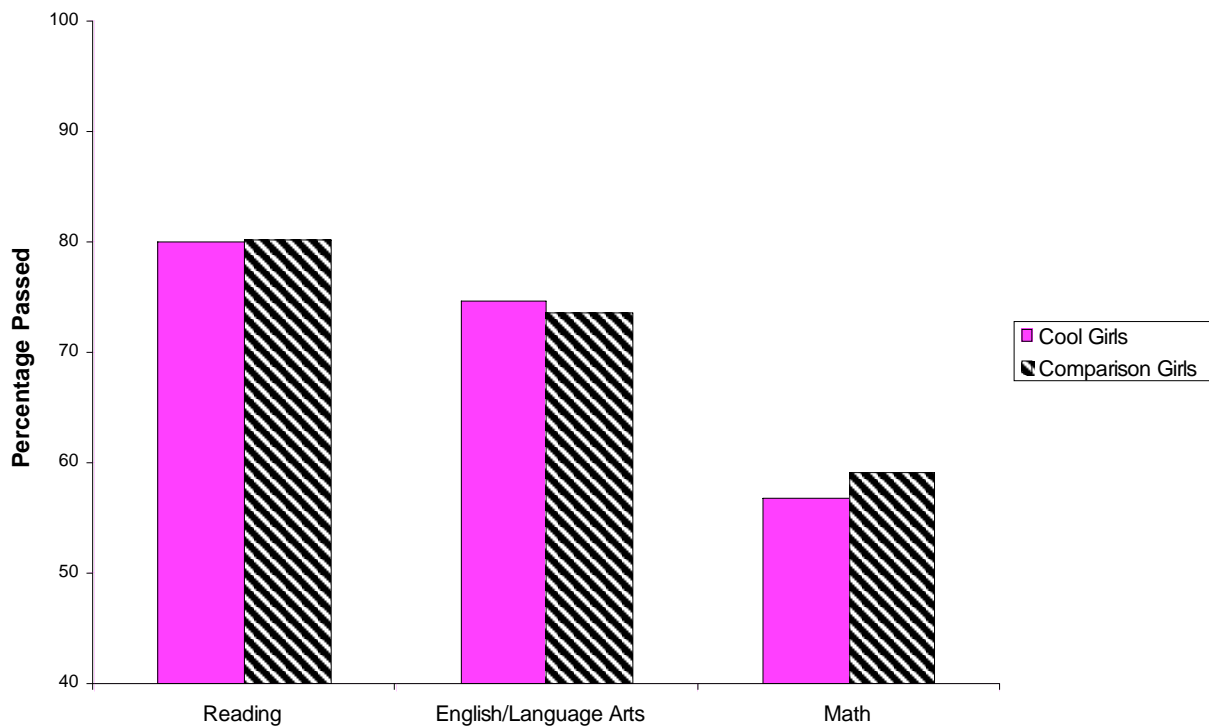
- 0-1 years of follow-up
- 2 or more years of follow-up

Findings

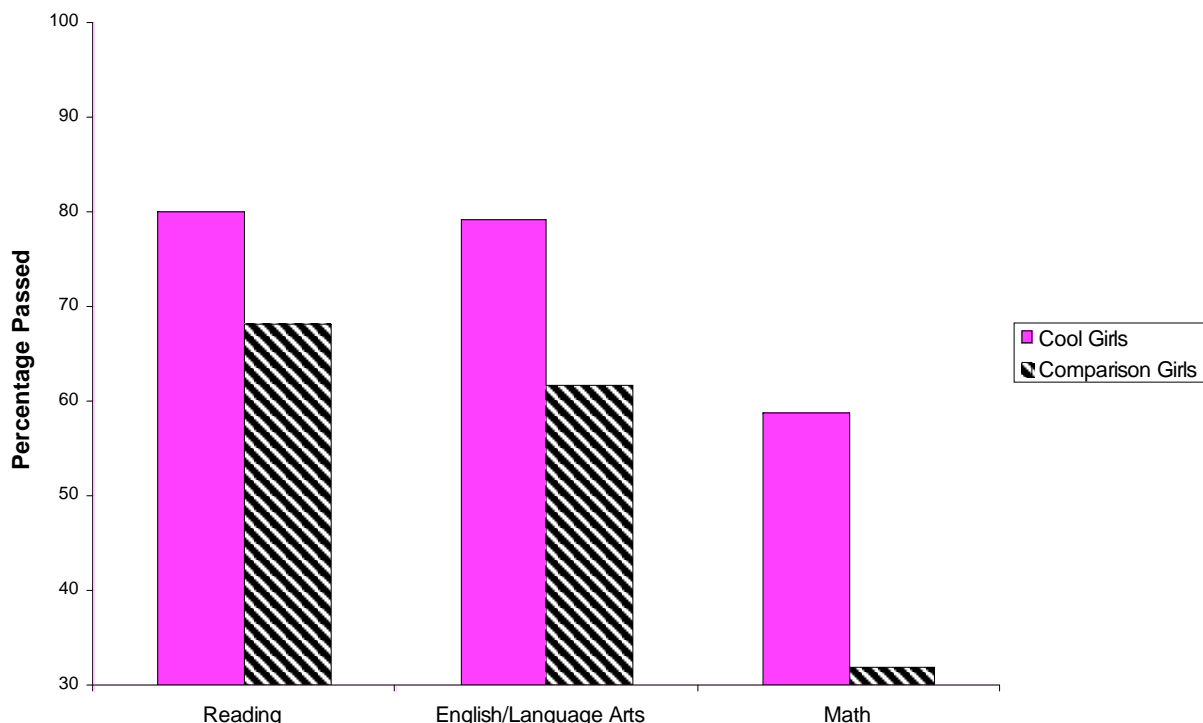
Cool Girls did not perform significantly better than comparisons on any of the standardized tests at the 0-1 year follow-up period. However, at the 2 or more year follow-up period Cool Girls were almost twice as likely (91%) as comparisons to pass the standardized tests in English/Language Arts and 2.6 times more likely (163%) than comparisons to pass the standardized tests in Math. Cool Girls were marginally more likely to pass the standardized tests in Reading.

Note: See Table A5 in the technical notes for detailed results.

Test Scores: 0 - 1 Year Follow-Up



Test Scores: 2 + Years Follow-Up



Overall Conclusion - How do Cool Girls perform academically up to six years after involvement in Cool Girls programs?

Overall, the results indicate that Cool Girls perform better academically than comparisons at short-term follow up (up to 2 years), with fewer differences at longer follow up periods. Because of differences in the time periods for which grades and standardized tests were reported, we were forced to use different follow-up ranges. Interestingly differences in standardized test scores were generally not present through 1 year follow up but appeared at about 2 years, suggesting the possibility that participation in Cool Girls confers an advantage to young women for academic success for at least 2 years after they entered the program. It should be noted, however, that each follow-up period represents a distinct cohort of participants. This means that differences in academic performance within each cohort might explain the findings regardless of participation in Cool Girls.

Specific findings were as follows: Cool Girls earned significantly higher grades than comparisons at the 0-2 year follow-up period for all subjects. At the 3-5 year follow-up period, Cool Girls earned marginally higher Math grades than comparisons. Cool Girls were not more likely than comparisons at the 0-2 year follow-up period to pass the standardized tests in any subject. However, Cool Girls were more likely to pass the standardized tests in English/Language Arts and Math at the 2 or more year follow-up period. Furthermore, Cool Girls were marginally more likely than comparisons to pass the standardized tests in Reading.



Section 4:
**Does level of participation in Cool Girls
programs make a difference in later
academic achievement?**

Do high attending Cool Girls earn better grades than comparisons?

Assessment

We examined differences between girls' level of participation as a factor in overall grade point average, Math, Language Arts, and Science grades. Grades were on a percentage scale and ranged from 0-100. Differences were assessed for three levels of participation:

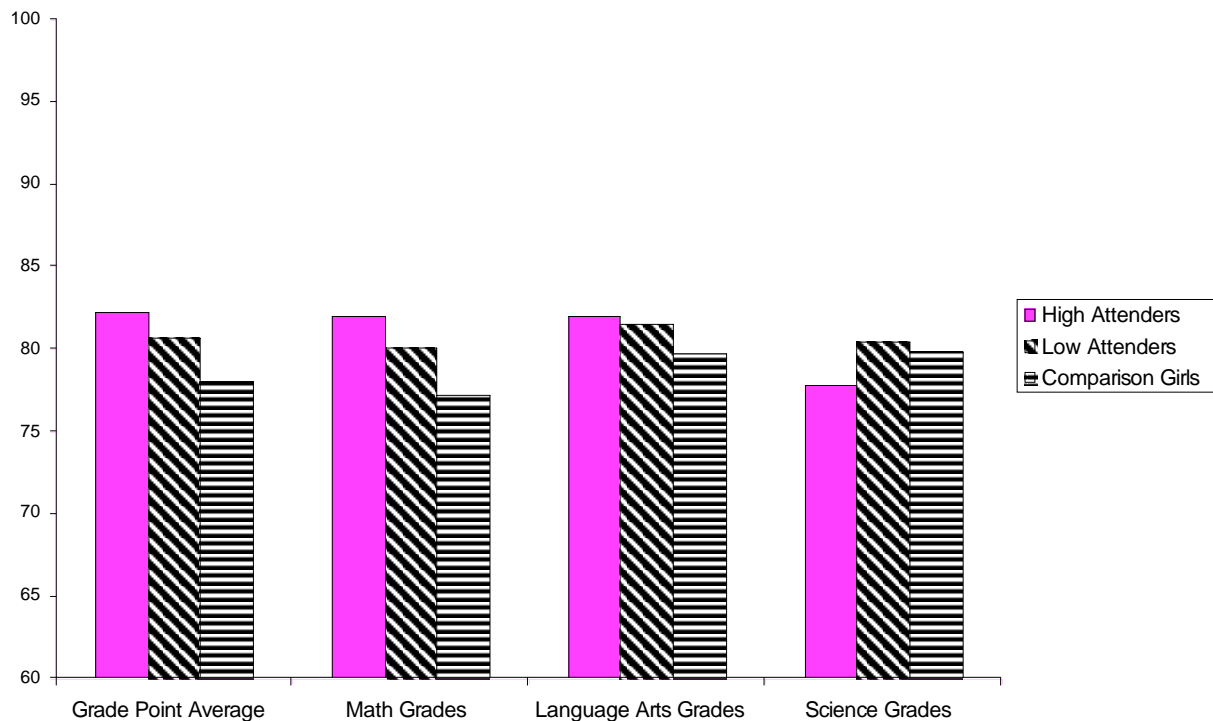
- High attending Cool Girls
- Low attending Cool Girls
- Comparison girls

Findings

High attending Cool Girls earned a somewhat higher overall grade point average and earned somewhat higher Math grades than comparisons. There were no other significant differences between high and low attending Cool Girls and comparisons.

Note: See Table A6 in the technical notes for detailed results.

Grades for Low and High Attending and Comparison Girls



Do high attending Cool Girls perform better on standardized tests than comparisons?

Assessment

We examined differences between high attending Cool Girls, low attending Cool Girls, and comparisons on their likelihood of passing the standardized Criterion-Referenced Competency Tests (CRCT) in Reading, English/Language Arts and Math. Because these tests used different scales depending on the grade taken, we evaluated only whether or not students achieved the established criterion score. We show the percentage of students passing each test. Differences were assessed across three levels of participation:

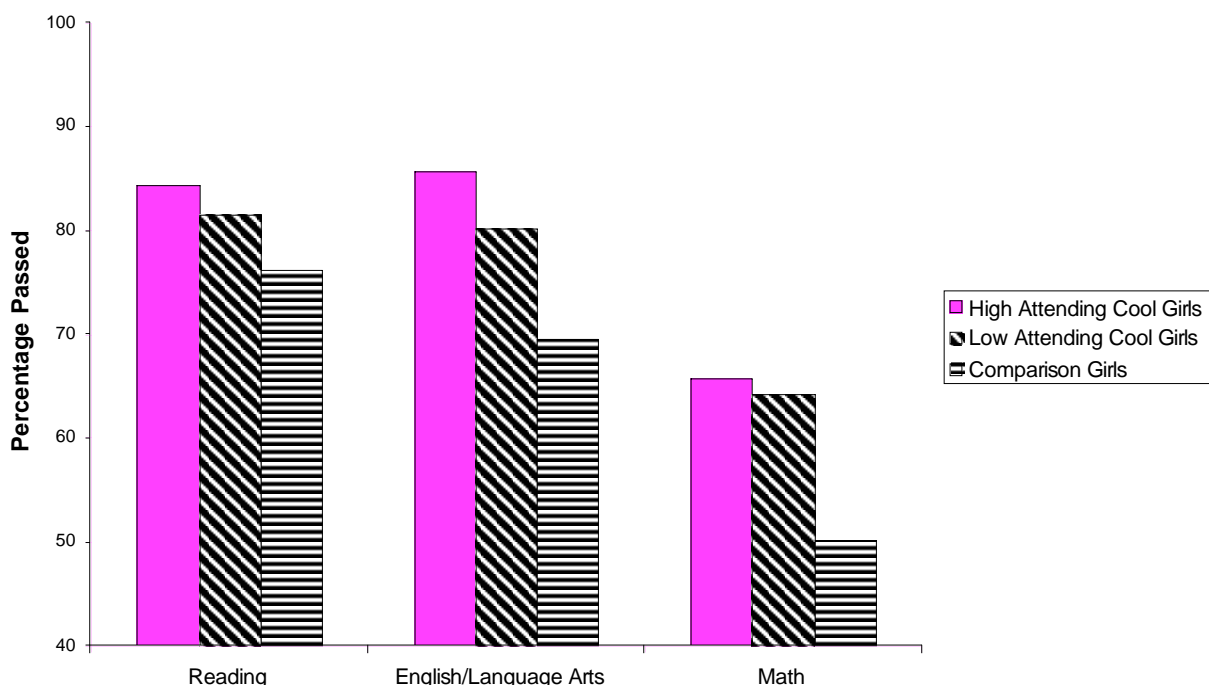
- High attending Cool Girls
- Low attending Cool Girls
- Comparison girls

Findings

High attending Cool Girls were 77% - 144% more likely than comparisons to pass Reading, English/Language Arts and Math standardized tests. This difference reached statistical significance for English/Language Arts and Math. Low attending Cool Girls were 34% - 71% more likely than comparisons to meet the standard in English/Language Arts and Math, and these differences were marginally significant.

Note: See Table A7 in the technical notes for detailed results.

Test Scores for High and Low Attending Cool Girls and Comparison Girls



Overall Conclusion - Does level of participation in Cool Girls programs make a difference in later academic achievement?

These findings indicate that consistent attendance in Cool Girls programs was related to somewhat better academic performance. High attending Cool Girls earned higher grades and were significantly more likely

than comparisons to pass the standardized tests in English/Language Arts and Math. However, Low attending Cool Girls were only somewhat more likely than comparisons to pass the standardized tests in English/Language Arts and Math.



Section 5:
**Does having a Cool Sister make a
difference in later academic achievement?**

Do Cool Girls who have a Cool Sister earn higher grades than Cool Girls without a Cool Sister and comparisons?

Assessment

We examined differences between Cool Girls' with and without a Cool Sister, and comparisons on overall grade point average, Math, Language Arts, and Science grades. Grades were on a percentage scale and ranged from 0-100. Differences were assessed across three groups:

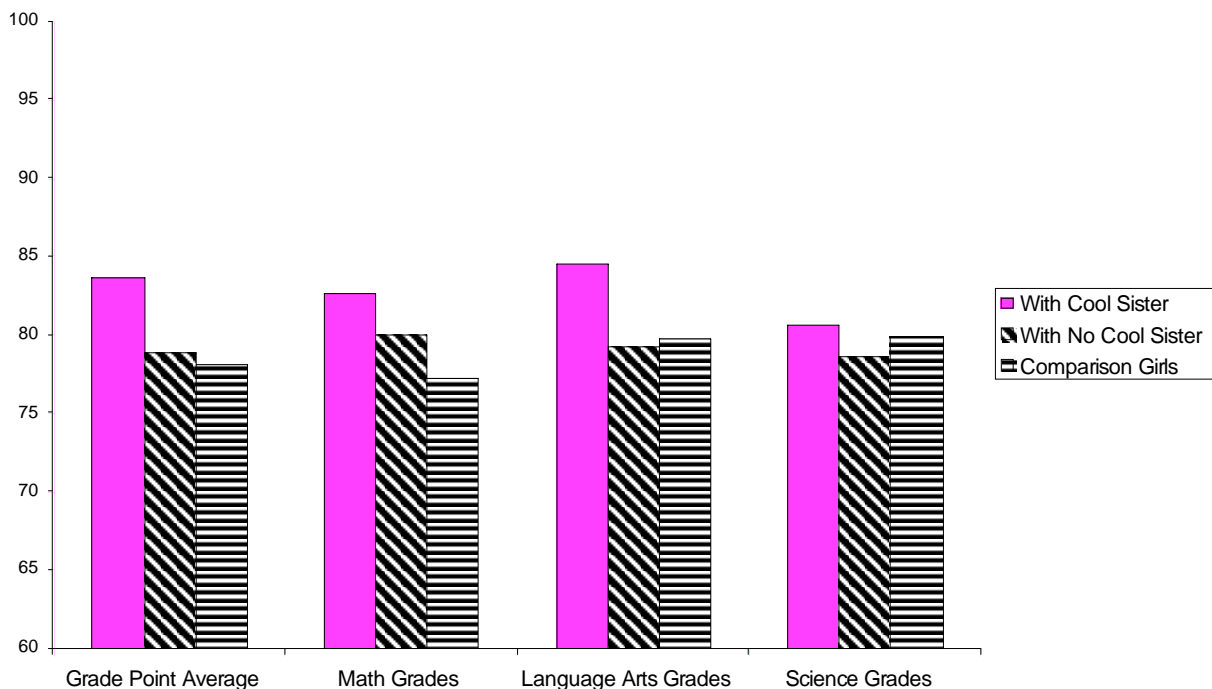
- Cool Girls with a Cool Sister
- Cool Girls without a Cool Sister
- Comparison girls

Findings

Cool Girls with a Cool Sister had a significantly higher grade point average than Cool Girls without a Cool Sister and comparisons. Additionally, Cool Girls with and without a Cool Sister had higher Math grades than comparisons. While Cool Girls with Cool Sisters earned higher grades than Cool Girls without a Cool Sister and comparisons in Language Arts and Science, those differences did not reach statistical significance. Lack of significant findings could be due to small sample sizes for these subgroup analyses.

Note: See Table A8 in the technical notes for detailed results.

Grades for Cool Girls with and without a Cool Sister and Comparison Girls



Do Cool Girls who have a Cool Sister perform better than Cool Girls without a Cool Sister and comparisons on standardized tests?

Assessment

We examined differences between Cool Girls with and without a Cool Sister, and comparisons on their likelihood of passing the standardized Criterion-Referenced Competency Tests (CRCT) in Reading, English/Language Arts, and Math. Because these tests used different scales depending on the grade taken, we evaluated only whether or not students achieved the established criterion score. We show the percentage of students passing each test. Differences were assessed across three groups:

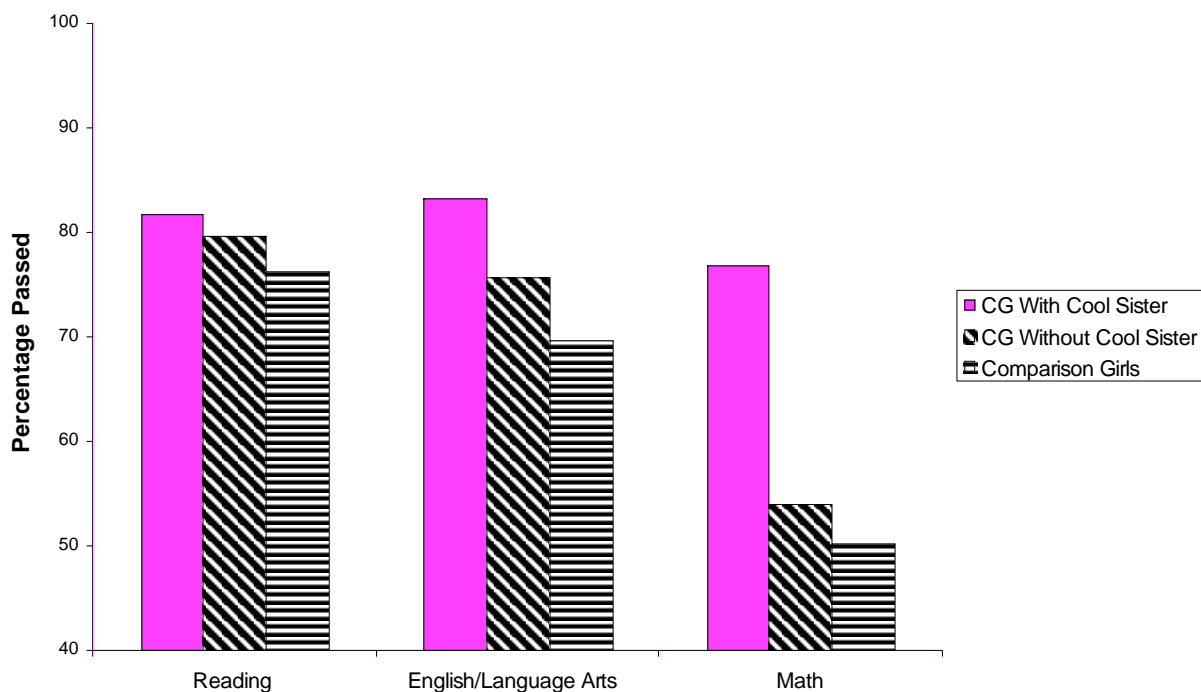
- Cool Girls with a Cool Sister
- Cool Girls without a Cool Sister
- Comparison girls

Findings

Cool Girls with Cool Sisters were more than 3 times more likely (232%) than comparisons to pass the standardized test in Math and about twice as likely (97%) to pass the standardized test in English/Language Arts. Whereas we estimated that Cool Girls with Cool Sisters were 52% more likely to pass the Reading standardized test, this difference was not statistically significant. We also estimated that Cool Girls that were not matched with Cool Sisters were 26% to 39% more likely than Comparisons to pass the standardized tests; however, none of these differences reached statistical significance.

Note: See Table A9 in the technical notes for detailed results.

Test Scores for Cool Girls With and Without a Cool Sister and Comparison Girls



Overall Conclusion

Overall, the results indicated that Cool Girls with a Cool Sister performed better academically than Comparisons regardless of whether academic performance was measured in terms of grades or standardized tests. Cool Girls who were not matched with a mentor showed a tendency to outperform Comparisons, but in only a limited number of comparisons.



Technical Appendix

Table A1. Summary of Key Measures

Measure	Description	Range of Scores
Math Grade	Average of numeric grades earned in Fall and Spring semesters	0-100
Language Arts Grade	Average of numeric grades earned in Fall and Spring semesters	0-100
Science Grade	Average of numeric grades earned in Fall and Spring semesters	0-100
Grade Point Average	Average of numeric grades earned across Math, Language Arts, and Science in Fall and Spring semesters	0-100
Criterion Referenced Test in Reading	Indicator of whether student met district criteria for passing test. Tests scored on one of two scoring systems. The QCC-based system has a range of scores from 150-450, with scores of 300 or higher meeting the standard. The, GPS-based system has a range from 650-900 with scores of 800 or higher meeting the standard.	0-1
Criterion Referenced Test in English / Language Arts	Indicator of whether student met district criteria for passing test. Same scoring system as above.	0-1
Criterion Referenced Test in Math	Indicator of whether student met district criteria for passing test. Same scoring system as above.	0-1
Graduation	Indicator of whether student who was expected to graduate actually did graduate or earn a certificate of performance. Expected graduation calculated based on grade level at entry to the study plus number of years of follow up; students at an expected grade level of 12 or higher were expected to have graduated.	0-1
Academic Progress	Indicator of whether student has made expected academic progress, in terms of being at or above expected grade level. Expected progress calculated based on grade level at entry to the study plus number of years of follow up.	0-1
Cool Girl	Indicator of whether student participated in Cool Girls (vs. Comparison)	0-1
Cool Girl Attendance	Indicator of whether student was classified as a Cool Girls High Attender, Cool Girls Low Attender, or Comparison	1-3
Cool Sister	Indicator of whether Cool Girls participant was matched with a Cool Sister (mentor) or not, or a comparison student	1-3
Follow-up Years	Categorical variable indicating length of follow-up period for each student. Categories were 0-2 years, 3-5 years, and 6+ years.	1-3
Year Started	Documented year of entry into Cool Girls or entry to evaluation for Comparisons.	1999-2007
Grade Level Started	Grade level at year of entry.	1-12
Year Ended	Year in which most recent grades were available in district records.	2002-2007
Grade Level Ended	Grade level of student in most recent year.	1-12

DATA FOR RESULTS PRESENTED IN SECTION 2

Table A2. Grades for Cool Girls and Comparisons

	N _{cg}	Cool Girls	N _{comp}	Comparison	F-value
Grade Point Average	292	79.77 (13.57)	135	78.08 (12.62)	2.78*
Math Grade	281	80.50 (13.00)	132	77.25 (15.28)	6.77**
Language Arts Grade	280	80.32 (15.10)	132	79.76 (11.93)	0.44
Science Grade	113	79.08 (15.12)	60	79.85 (10.42)	1.14

Note: Sample Sizes (N), Means and Standard Deviations are shown. F-value is reported from Analysis of Covariance (ANCOVA) controlling differences in year of entry and grade level of entry to the study between Cool Girls and Comparisons at entry.

+ $p < .15$; * $p < .10$; ** $p < .05$; *** $p < .01$

Table A3. Standardized Test Scores (Criterion Referenced Tests) for Cool Girls and Comparisons

	N _{cg}	Cool Girls	N _{comp}	Comparison	Odds
Reading	331	80.1%	143	76.2%	1.34
English/Language Arts	320	76.9%	138	69.6%	1.46+
Math	336	57.7%	145	50.3%	1.43*

Note: Sample Sizes (N) and Percent Meeting the Standard are Shown. Adjusted odds ratios are shown for logistic regression analyses controlling differences in year of entry and grade level of entry to the study between Cool Girls and Comparisons. The equations for Math tests also controlled for differences in grade level at which the test was taken. Odds of 1.0 indicate that Cool Girls and Comparisons had equal likelihood of meeting the standard. Odds between 0.0 and 1.0 indicate that Comparisons had greater likelihood, whereas odds greater than 1.0 indicate that Cool Girls had greater likelihood of meeting the standard. The odds ratios can also be converted to percentage scores using the formula $(\text{Odds} - 1) * 100\%$; Thus, the odds ratio of 1.44 indicates that Cool Girls were 44% more likely than Comparisons to meet the standard in English/Language Arts, a difference that is statistically significant with 90% confidence ($p < .10$).

+ $p < .15$; * $p < .10$; ** $p < .05$; *** $p < .01$

DATA FOR RESULTS PRESENTED IN SECTION 3

Table A4. School Grades for Cool Girls and Comparison by Years of Follow-up

	N _{cg}	Cool Girls	N _{comp}	Comparison	F-value
<u>Follow-up 0-2 Years</u>					
Grade Point Average	50	86.11 (8.97)	49	80.46 (9.19)	13.31***
Math Grade	50	86.55 (9.37)	49	81.32 (10.45)	12.87***
Language Arts Grade	48	87.06 (8.44)	49	79.97 (10.98)	10.86***
Science Grade	34	85.68 (8.22)	40	80.50 (10.45)	4.84**
<u>Follow-up 3-5 Years</u>					
Grade Point Average	144	79.32 (14.25)	53	77.54 (14.21)	0.06
Math Grade	140	79.86 (12.55)	51	75.07 (18.09)	2.68+
Language Arts Grade	138	80.00 (15.95)	51	80.92 (11.20)	1.20
Science Grade	47	77.64 (15.65)	13	80.92 (9.02)	0.81
<u>Follow-up 6+ Years</u>					
Grade Point Average	98	77.20 (13.56)	33	75.43 (13.84)	0.08
Math Grade	92	78.10 (14.35)	32	74.50 (15.75)	0.69
Language Arts Grade	94	77.36 (15.54)	32	77.59 (14.33)	0.13
Science Grade	32	74.20 (12.76)	7	74.14 (12.31)	0.17

Note: Sample Sizes (N), Means and Standard Deviations are shown. F-value is reported from Analysis of Covariance (ANCOVA) controlling differences in year of entry and grade level of entry to the study between Cool Girls and Comparisons at entry.

+ $p < .15$; * $p < .10$; ** $p < .05$; *** $p < .01$

Table A5. Standardized Test Scores for Cool Girls and Comparison by Years of Follow-up

	N _{cg}	Cool Girls	N _{comp}	Comparison	Odds
<u>Follow-up 0-1 Years</u>					
Reading	176	80.1%	96	80.2%	1.06
English/Language Arts	170	74.7%	91	73.6%	1.28
Math	176	56.8%	98	59.2%	0.96
<u>Follow-up 2+ Years</u>					
Reading	155	80.0%	47	68.1%	1.91+
English/Language Arts	150	79.3%	47	61.7%	1.91*
Math	160	58.8%	47	31.9%	2.63***

Note: Sample Sizes (N) and Percent Meeting the Standard are Shown. Adjusted odds ratios are shown for logistic regression analyses controlling differences in year of entry and grade level of entry to the study between Cool Girls and Comparisons. The equations for Math tests also controlled for differences in grade level at which the test was taken. Odds of 1.0 indicate that Cool Girls and Comparisons had equal likelihood of meeting the standard. Odds between 0.0 and 1.0 indicate that Comparisons had greater likelihood, whereas odds greater than 1.0 indicate that Cool Girls had greater likelihood of meeting the standard. The odds ratios can also be converted to percentage scores using the formula $(\text{Odds} - 1) * 100$; Thus, the odds ratio of 2.63 indicates that Cool Girls were 163% more likely (more than twice as likely) than Comparisons to meet the standard in Math, a difference that is statistically significant with 99% confidence ($p < .01$).

+ $p < .15$; * $p < .10$; ** $p < .05$; *** $p < .01$

DATA FOR RESULTS PRESENTED IN SECTION 4

Table A6. School Grades for High Attending and Low Attending Cool Girls and Comparisons

	N _{cs}	CG High Attender (1)	N _{cg}	CG Low Attender (2)	N _{comp}	Comparison (3)	F-value	Group Differences
Grade Point Average	66	82.29 (11.50)	74	80.66 (12.84)	135	78.08 (12.62)	1.90+	1 > 3
Math Grade	66	82.02 (11.66)	74	80.12 (13.32)	132	77.25 (15.28)	2.05+	1 > 3
Language Arts Grade	65	81.98 (13.73)	71	81.58 (14.12)	132	79.76 (11.93)	0.48	
Science Grade	19	77.79 (16.34)	29	80.48 (15.04)	60	79.85 (10.42)	0.23	

Note: Sample Sizes (N), Means and Standard Deviations are shown. F-value is reported from Analysis of Covariance (ANCOVA) controlling differences in year of entry and grade level of entry to the study between Cool Girls and Comparisons at entry.

+ $p < .15$; * $p < .10$; ** $p < .05$; *** $p < .01$

Table A7. Standardized Test Scores for High Attending and Low Attending Cool Girls and Comparisons

	N _{cs} high	CG High Attender (1)	N _{cg} low	CG Low Attender (2)	N _{comp}	Comparison (3)	High vs. Comp Odds	Low vs. Comp Odds
Reading	70	84.3%	81	81.5%	143	76.2%	1.77	1.34
English/ Language Arts Grade	70	85.7%	76	80.3%	138	69.6%	2.44**	1.71+
Math	73	65.8%	84	64.3%	145	50.3%	1.80*	1.57+

Note: Sample Sizes (N) and Percent Meeting the Standard are Shown. Adjusted odds ratios are shown for logistic regression analyses controlling differences in year of entry and grade level of entry to the study between Cool Girls and Comparisons. The equations for Math tests also controlled for differences in grade level at which the test was taken. Odds of 1.0 indicate that Cool Girls and Comparisons had equal likelihood of meeting the standard. Odds between 0.0 and 1.0 indicate that Comparisons had greater likelihood, whereas odds greater than 1.0 indicate that Cool Girls had greater likelihood of meeting the standard. The odds ratios can also be converted to percentage scores using the formula $(\text{Odds} - 1) * 100$; Thus, the odds ratio of 2.44 indicates that high attending Cool Girls were 144% more likely than Comparisons to meet the standard in English/Language Arts, a difference that is statistically significant with 90% confidence ($p < .10$).

+ $p < .15$; * $p < .10$; ** $p < .05$; *** $p < .01$

DATA FOR RESULTS PRESENTED IN SECTION 5

Table A8. School Grades for Cool Girls with and without Cool Sister and Comparisons

	N _{cs}	CG with Cool Sister (cgs)	N _{cg}	CG no Cool Sister (cg)	N _{comp}	Comparison (cmp)	F-value	Group Differences
Grade Point Average	53	83.66 (11.28)	239	78.91 (13.89)	135	78.08 (12.62)	2.93*	cgs>cg, cmp
Math Grade	53	82.60 (11.95)	228	80.01 (13.21)	132	77.25 (15.28)	3.64**	cgs, cg>cmp
Language Arts Grade	53	84.61 (10.49)	227	79.32 (15.83)	132	79.76 (11.93)	2.29	
Science Grade	24	80.67 (18.32)	89	78.66 (14.23)	60	79.85 (10.42)	0.59	

Note: Sample Sizes (N), Means and Standard Deviations are shown. F-value is reported from Analysis of Covariance (ANCOVA) controlling differences in year of entry and grade level of entry to the study between Cool Girls and Comparisons at entry.

+ $p < .15$; * $p < .10$; ** $p < .05$; *** $p < .01$

Table A9. Standardized Test Scores for Cool Girls with and without Cool Sister and Comparisons

	N _{cs}	CG with Cool Sister (cgs)	N _{cg}	CG no Cool Sister (cg)	N _{comp}	Comparison (cmp)	Odds cgs v. cmp	Odds cg v cmp
Reading	55	81.8%	276	79.7%	143	76.2%	1.52	1.32
English / Language Arts	54	83.3%	266	75.6%	138	69.6%	1.97+	1.39
Math	56	76.8%	280	53.9%	145	50.3%	3.32***	1.26

Note: Sample Sizes (N) and Percent Meeting the Standard are Shown. Adjusted odds ratios are shown for logistic regression analyses controlling differences in year of entry and grade level of entry to the study between Cool Girls and Comparisons. The equations for Math tests also controlled for differences in grade level at which the test was taken. Odds of 1.0 indicate that Cool Girls and Comparisons had equal likelihood of meeting the standard. Odds between 0.0 and 1.0 indicate that Comparisons had greater likelihood, whereas odds greater than 1.0 indicate that Cool Girls had greater likelihood of meeting the standard. The odds ratios can also be converted to percentage scores using the formula $(\text{Odds} - 1) * 100$; Thus, the odds ratio of 3.32 indicates that Cool Girls were 232% more likely than Comparisons to meet the standard in English/Language Arts, a difference that is statistically significant with 99% confidence ($p < .01$).

+ $p < .15$; * $p < .10$; ** $p < .05$; *** $p < .01$