

**MENTOR DELAWARE**  
**YEAR ONE**  
**ANNUAL EVALUATION RESULTS**

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## EXECUTIVE SUMMARY

This evaluation involved the collection of school and district level data to determine how the performances of students who are mentored through this grant are impacted. Selected youth identified by school staff as exhibiting “the greatest need<sup>1</sup>” were matched with adult mentors in the first year of the program. Selected evaluation results are highlighted below:

### School Attendance

- Most of the mentored students (74%) had at least one recorded unexcused absence on their transcript in the baseline year, 2003-2004. At the end of the 2004-2005 school year, about the same percentage of mentored students (83%) had at least one recorded unexcused absence on their transcript.

### Student Achievement

- In reading, 36% of the mentored students showed improvement in their grades between the first quarter and second quarter marking periods and 53% of the mentored students showed improvement in their grades between the third and fourth quarter marking periods.
- Results show a significant increase in the mentored students’ Normal Curve Equivalent (NCE) reading score means when comparing 2004 and 2005 test results.

### Student Behavior

- The types of school disciplinary infractions remained consistent in both years with the majority of recorded infractions listed as some type of a disruption (bus, educational procedures, or general classroom disruption).

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<sup>1</sup> Students exhibiting “the greatest need” are defined by the project as those students “lacking strong positive role models, at risk for educational failure, dropping out of school and delinquency”.

## PURPOSE OF THE RESEARCH

The Delaware Education Research and Development Center at the University of Delaware conducted the evaluation of Mentor Delaware, a consortium of the Indian River School District and three mentoring organizations in Delaware – Big Brothers Big Sisters of Delaware, Creative Mentoring, and the University of Delaware’s AmeriCorp VISTA Program. This evaluation addressed how well the program has met its stated outcome goals:

- Reduce the percentage of mentored students who have unexcused absences from school;
- Increase the percentage of mentored students who demonstrate improvement in core academic subjects; and
- Reduce the percentage of mentored students who violate the school discipline policy.

## METHODS

The evaluation involved the analysis of various existing data sources. The existing data sources were divided into three parts. Part I includes analysis of attendance data: the number of excused absences and the number of unexcused absences. Part II includes the analysis of three indicators of student achievement: semester grades in the core academic subjects as defined by the U.S. Department of Education, state assessment results in reading and mathematics, and district reading assessment results using the STAR reading assessment<sup>2</sup>. Part III includes the number and type of violations of the school discipline policy.

In the summer of 2005, data were gathered on 57 students from the Indian River School District. Most of the mentored students attended North Georgetown Elementary, Sussex Central Middle School, or Selbyville Middle School.

Selected findings are discussed in the following section. Presented in this report are results for the student sample as a whole.

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<sup>2</sup> STAR reading scores were not available at the time of this report. When made available, results will be included in a separate document.

## DISCUSSION OF FINDINGS

### SCHOOL ATTENDANCE

Student attendance was collected for the both the 2003-2004 and 2004-2005 academic years. The 2003-2004 data was used as a baseline measure to compare with student attendance data from the 2004-2005 academic year. One of the outcome goals of the mentoring program is to reduce the percentage of mentored students who have unexcused absences.

#### Unexcused Absences

At the end of the 2003-2004 school year, most of the mentored students (74%) had at least one recorded unexcused absence on their transcript. At the end of the 2004-2005 school year, about the same percentage of mentored students (83%) had at least one recorded unexcused absence on their transcript. Although this percentage increased slightly, the difference is not significant ( $t(52) = -1.34, p > .05$ ).

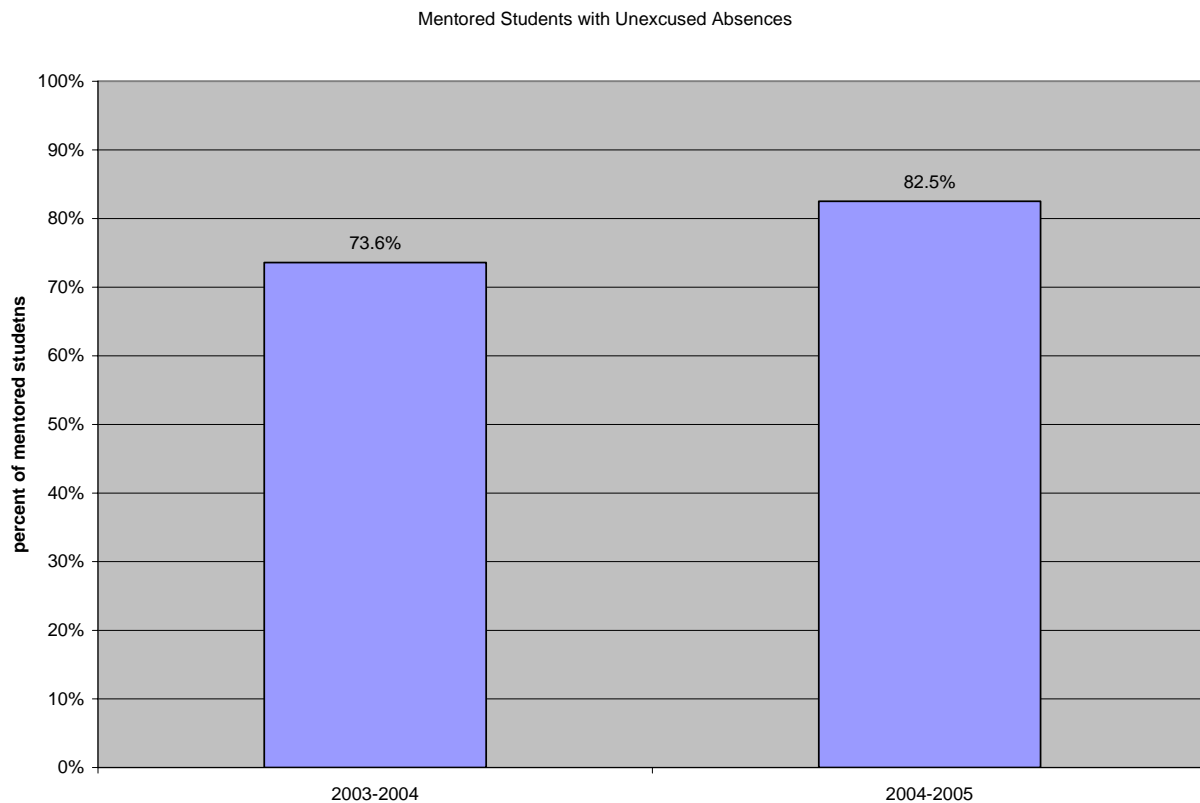


Figure 1. Percent of mentored students with unexcused absences

### Excused Absences

At the end of the 2003-2004 school year, most of mentored students (81%) had at least one recorded excused absence on their transcript. At the end of the 2004-2005 school year, about the same percentage of mentored students (79%) had at least one recorded excused absence on their transcript. Although this percentage decreased slightly, the difference is not significant ( $t(52) = -1.11, p > .05$ ).

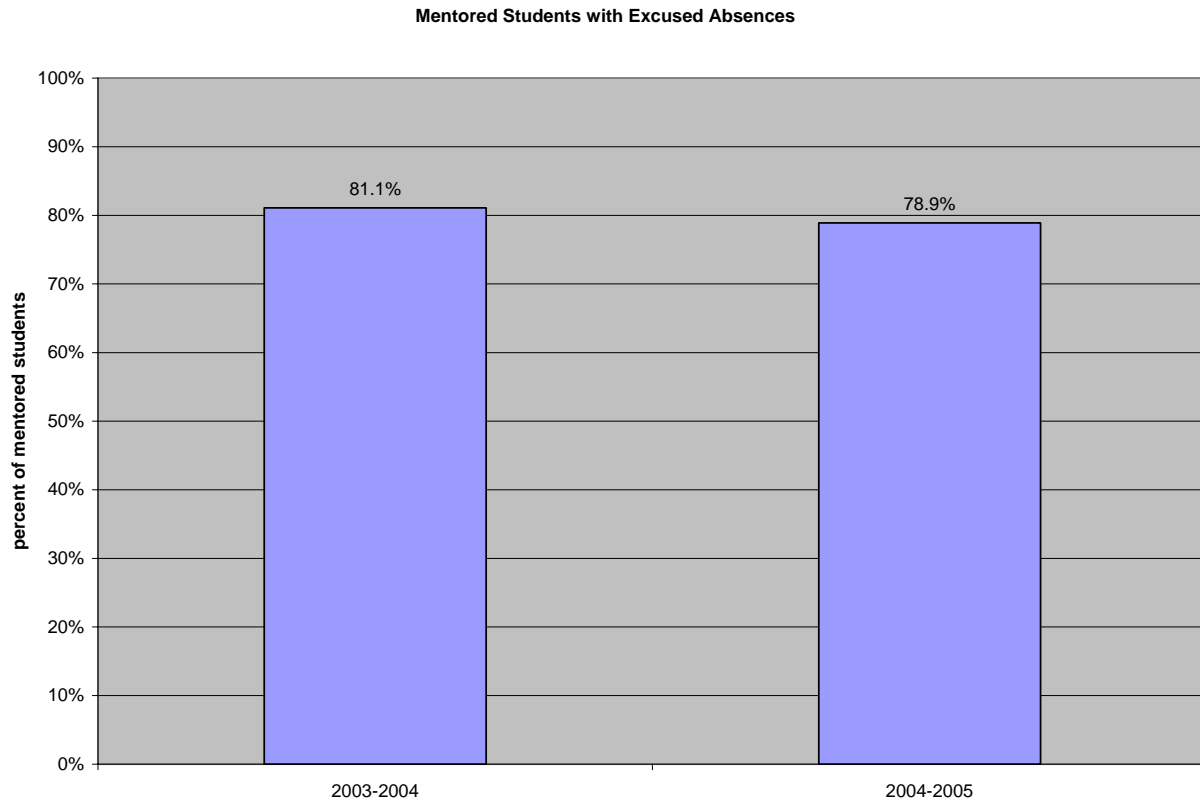


Figure 2. Percent of mentored students with excused absences

## **STUDENT ACHIEVEMENT**

For this component of the evaluation, the grades, the state testing assessment results, and the student behavior records of the 57 students receiving mentoring were examined. Results are described below.

### **GRADES**

Core academic grades<sup>3</sup> (reading, math, science, and social studies) were analyzed by academic subject. First, the percent of mentored students showing improvement within the 1<sup>st</sup> semester of the 2004-2005 school year and improvement within the second semester of 2004-2005 was determined. Second, the percent of mentored students with improved grades within each semester was compared to determine if the improvement in grades between the semesters was significant.

#### **Reading**

Results show that in reading, 36% of the mentored students showed improvement in their grades between the first quarter and second quarter marking periods and 53% of the mentored students showed improvement in their grades between the third and fourth quarter marking periods. Although there was an increase in the percentage of students that showed improvement in their reading grades, this difference is not statistically significant. A chi-square test of independence was conducted to determine if the mentored students' improvement in reading was significantly different from first semester to the second semester. No significant relationship was found ( $\chi^2 (1) = 1.23, p > .05$ ).

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<sup>3</sup> An insufficient amount of data in the Arts (art, music, band, etc.) was available and therefore could not be analyzed.

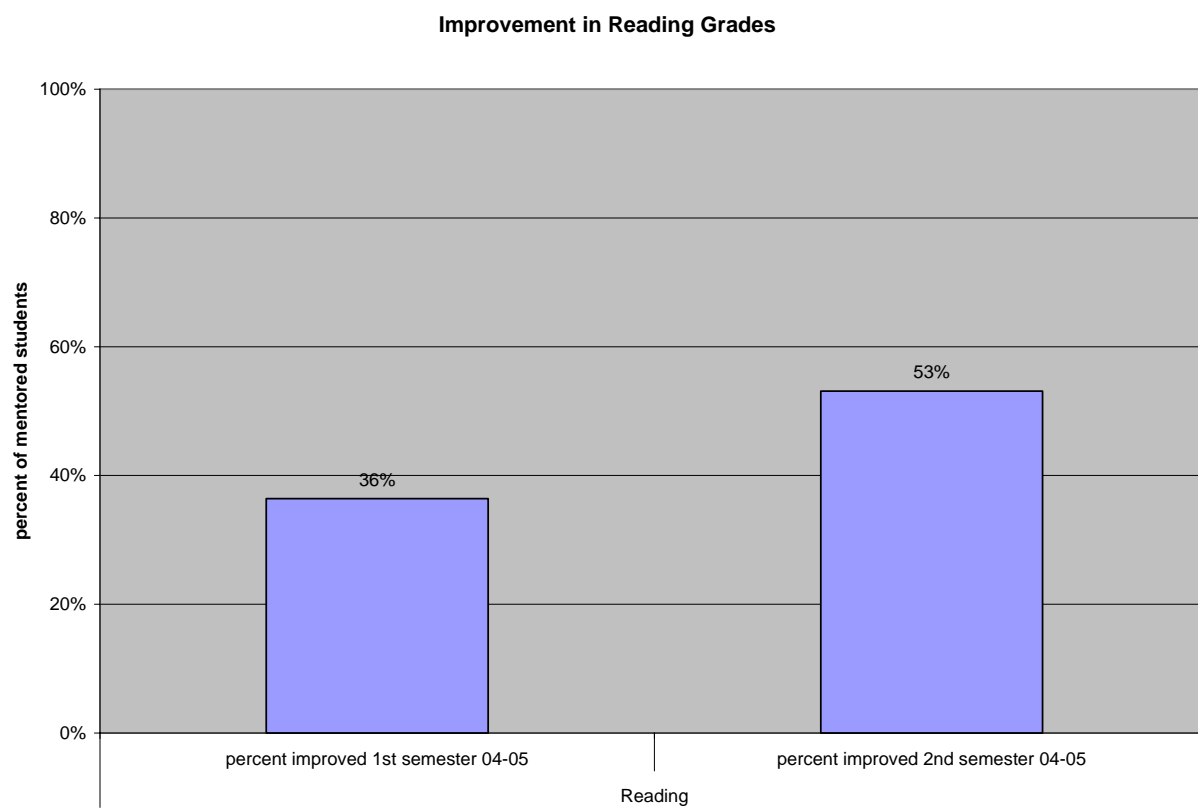


Figure 3. Percent of mentored students with improvement in reading

## Math

Results show that in math, 36% of the mentored students showed improvement in their grades between the first quarter and second quarter marking periods and 43% of the mentored students showed improvement in their grades between the third and fourth quarter marking periods. Although there was a slight increase in the percentage of students that showed improvement in their math grades, this difference is not statistically significant. A chi-square test of independence was conducted to determine if the mentored students' improvement in math was significantly different from first semester to the second semester. No significant relationship was found ( $\chi^2(1) = .30, p > .05$ ).

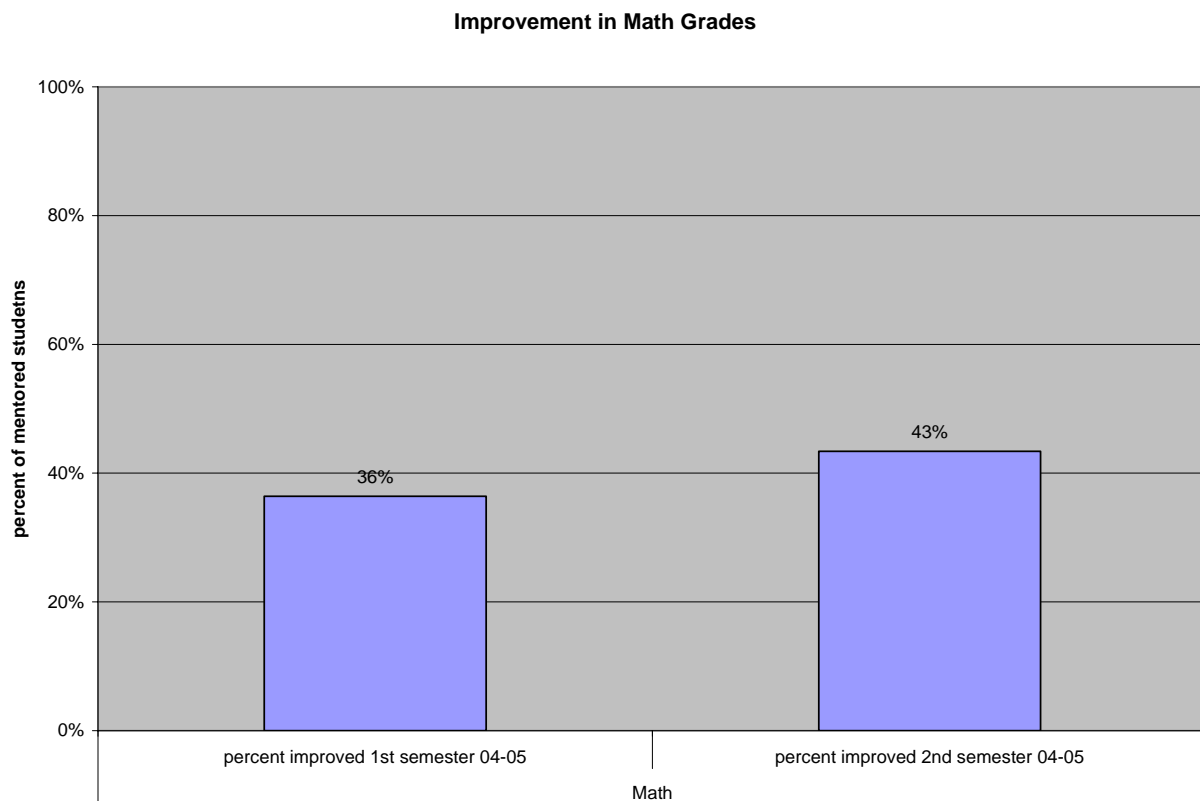


Figure 4. Percent of mentored students with improvement in math



## Science

Results show that in science, 48% of the mentored students showed improvement in their grades between the first quarter and second quarter marking periods and 72% of the mentored students showed improvement in their grades between the third and fourth quarter marking periods. Although there was an increase in the percentage of students that showed improvement in their science grades, this difference is not statistically significant. A chi-square test of independence was conducted to determine if the mentored students' improvement in science was significantly different from first semester to the second semester. No significant relationship was found ( $\chi^2(1) = 2.08, p > .05$ ).

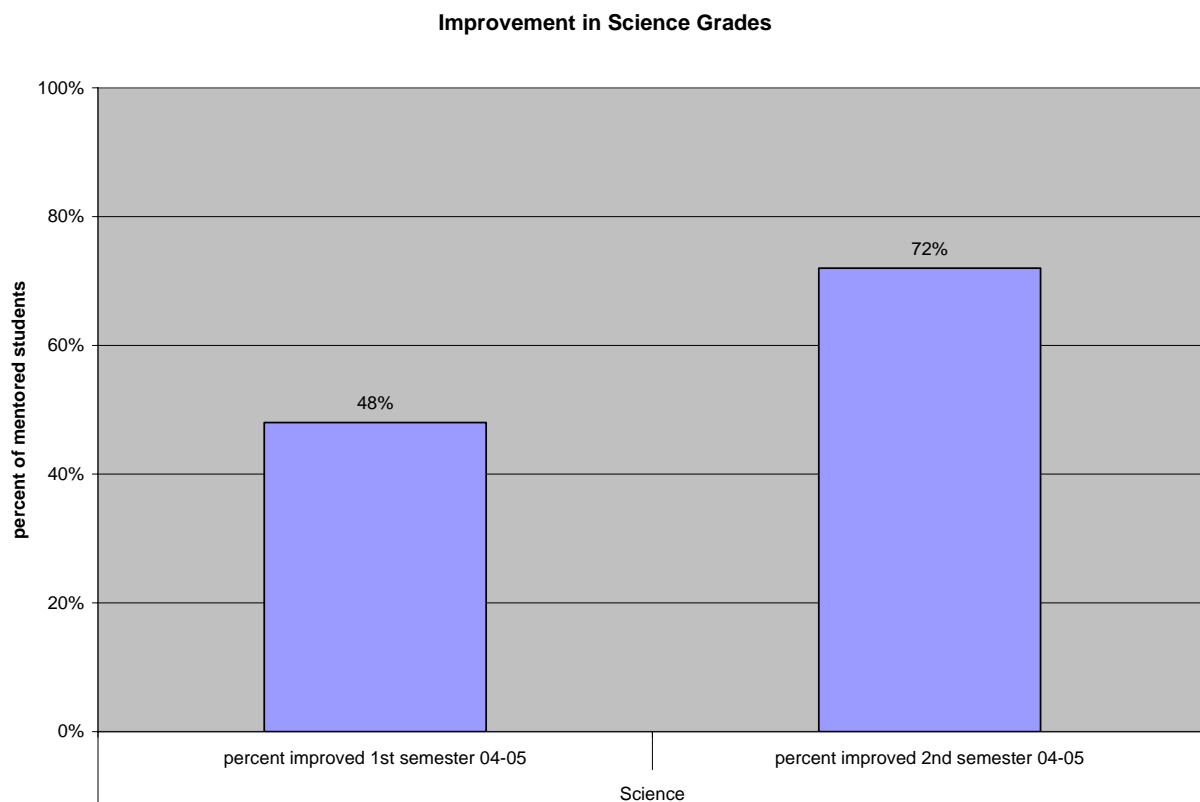


Figure 5. Percent of mentored students with improvement in science

## Social Studies

Results show that in social studies, 43% of the mentored students showed improvement in their grades between the first quarter and second quarter marking periods and 46% of the mentored students showed improvement in their grades between the third and fourth quarter marking periods. Although there was a slight increase in the percentage of students that showed improvement in their social studies grades, this difference is not statistically significant. A chi-square test of independence was conducted to determine if the mentored students' improvement in social studies was significantly different from first semester to the second semester. No significant relationship was found ( $\chi^2(1) = 0, p > .05$ ).

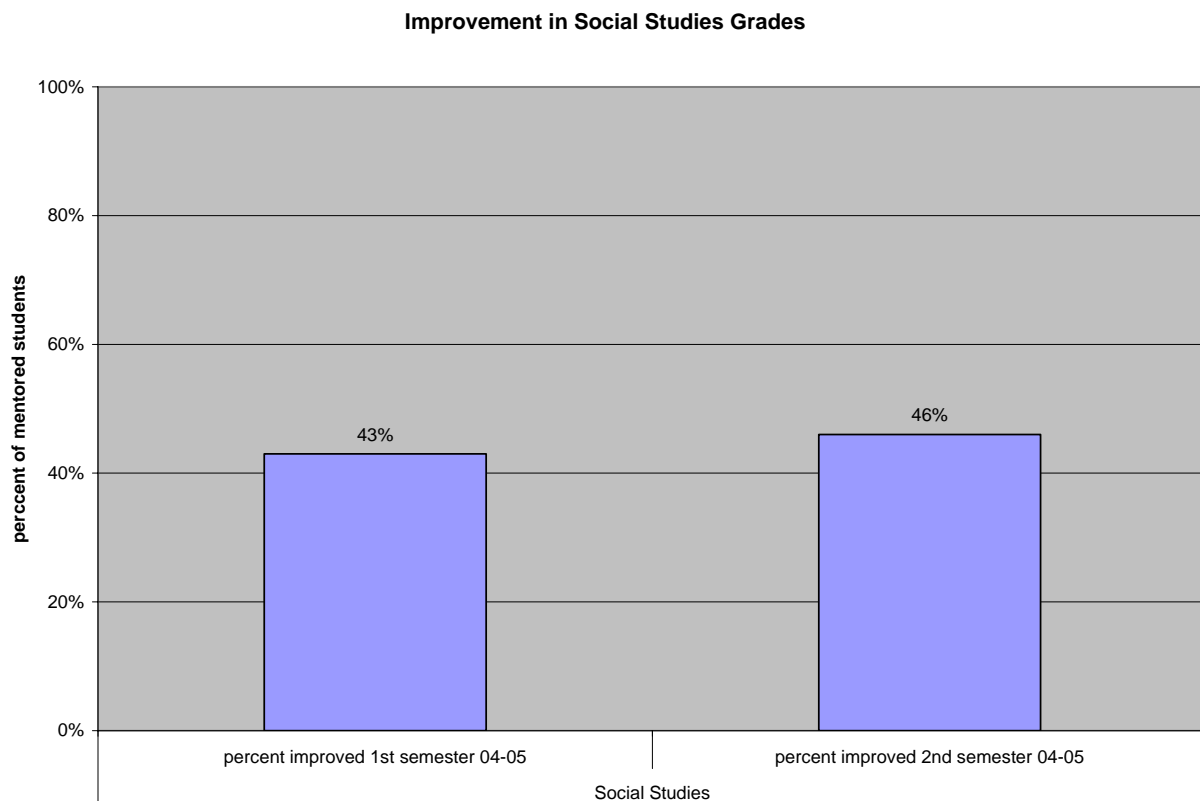


Figure 6. Percent of mentored students with improvement in social studies

## STATE TESTING ASSESSMENT RESULTS

State reading and math achievement test scores were analyzed using the Normal Curve Equivalent (NCE) scores of mentored students from the spring 2004 and spring 2005 Delaware Student Testing Program (DSTP).

In reading, mentored students' achievement test results show a significant increase in the mean NCE reading score between 2004 (Mean =50.01 S.D. =16.49) and 2005 (Mean= 54.99, S.D. =16.25) ( $t(45) = -2.02, p \leq .05$ ). This difference is significant. A medium effect size was calculated,  $d=.29$ .

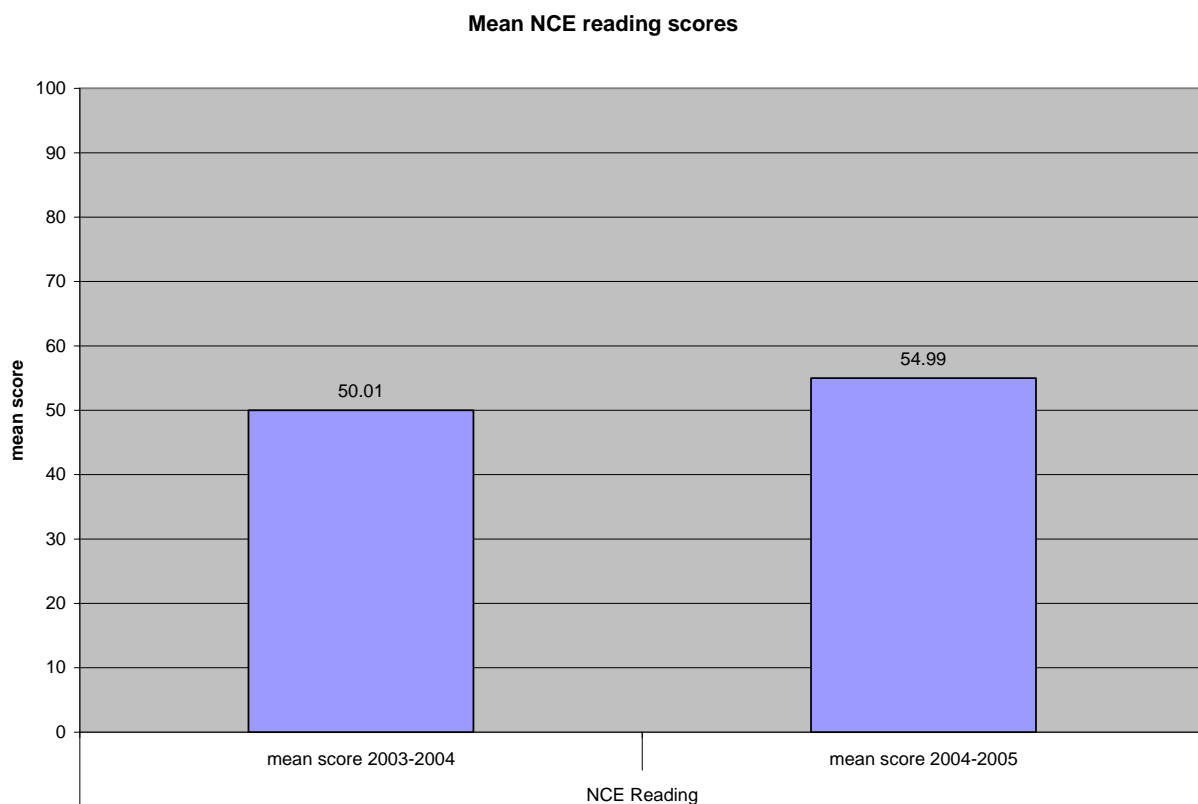


Figure 7. Mean NCE reading scores for 2003-2004 and 2004-2005

In math, mentored students' achievement test results showed a slight decrease in the mean NCE math score between 2004 (Mean =52.97 S.D. =20.24) and 2005 (Mean= 49.73, S.D. =16.39) ( $t(49) = 1.21, p > .05$ ). This difference is not significant.

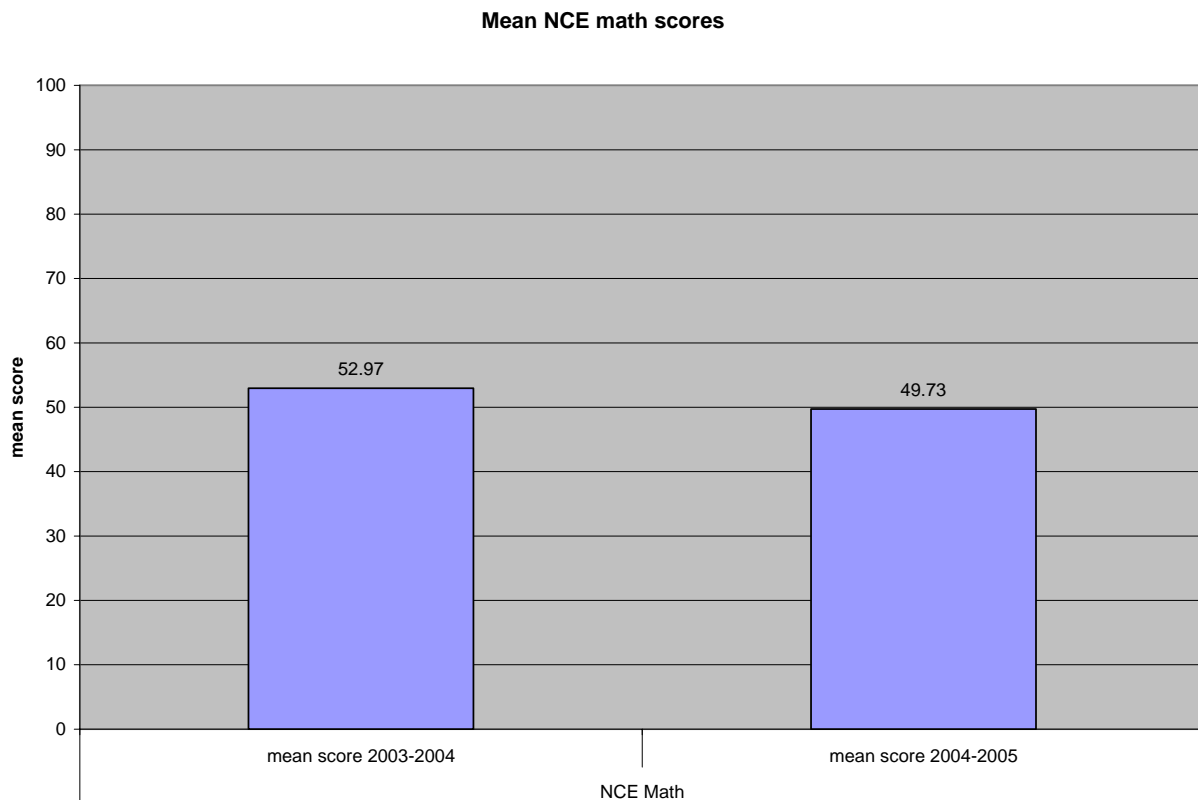


Figure 8. Mean NCE math scores for 2003-2004 and 2004-2005

#### STAR READING ASSESSMENT RESULTS

Not available at the time of this report. When available, STAR reading results will be included in a separate document.

### STUDENT BEHAVIOR

Almost one-third of the students (32%) had at least one disciplinary infraction recorded in their student record in 2003-2004 school year. Slightly more mentored students (40%) had at least one disciplinary infraction recorded in their student record in 2004-2005 school year. More than one-half of the same students (52%) were responsible for these infractions in both years. The types of school disciplinary infractions remained consistent in both years with the majority of recorded infractions listed as some type of a disruption (bus, educational procedures, or general classroom disruption). This type of infraction represented 76% of all infractions in the 2003-2004 academic year and 59% in the 2004-2005 academic year.

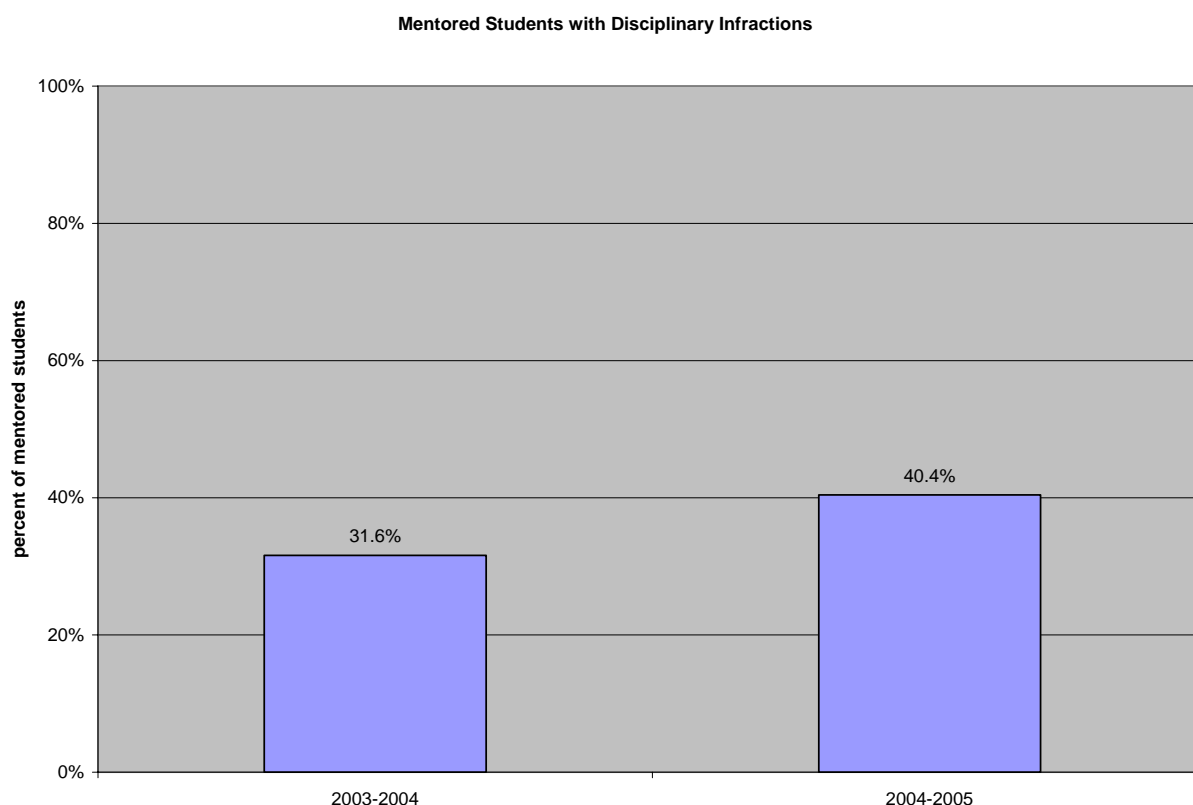


Figure 9. Percent of mentored students with one or more disciplinary infractions

During the 2003-2004 school year, twenty-two (22) disruptions on the bus were reported in the school records of the mentored students; in the 2004-2005 school year, about the same number, twenty-three (23) disruptions on the bus were recorded. During the 2003-2004 school year, fourteen (14) disruptions to educational procedures were reported in the school records of the mentored students; in the 2004-2005 school year about the same number, sixteen (16) disruptions to educational procedures were recorded. For both school years, the recorded incidents of “use of profanity” remained low.

## CONCLUSIONS

Mentor Delaware focuses on several aspects of the mentored students' academic performance and learning. Outcome goals include reducing the percentage of mentored students who have unexcused absences from school, increasing the percentage of mentored students who demonstrate improvement in core academic subjects, and reducing the percentage of mentored students who violate the school discipline policy.

The primary purpose of the evaluation is to monitor how well the program has met its stated outcome goals using existing student achievement, attendance, and school discipline data. Selected youth identified by school staff as exhibiting "the greatest need" were chosen for this program. Year one findings show one significant change in student achievement; mentored students' NCE reading scores significantly improved from 2004 to 2005. Other significant increases were not found; however, the reported results provide some interesting consistencies. The findings confirm these mentored students are not showing a significant decline in their grades, an increase in their absenteeism, or an increase in violent discipline infractions; all of these outcomes remain consistent. Results also suggest that initial academic improvement, reduction in the number of absences, and reduction in school disciplinary infractions may not be evidenced immediately.