Georgia Institute of Technology  
Office of Institutional Research & Planning  
Grade Substitution Study  

Summary of Findings, Phase II

The Office of Institutional Research & Planning conducted an analysis on the effect of the proposed grade substitution policy at the request of the Registrar’s Office. The study was conducted in two phases. Phase I identified the effect of grade substitution on students who are “at risk” academically. This phase, Phase II, will review the effect of grade substitution on students who are in good academic standing.

This portion of the study focuses on students who are in good standing and the effect of the policy on their GPA, as well as HOPE scholarship recipients and whether or not the policy would allow more students to remain at Tech on the scholarship. When looking at those students from the 2002 freshman cohort who had a cumulative GPA between 2.5 and 2.99, there were several who made Ds or Fs. The majority of those low grades were in Math 1502 (53), Phys 2211 (38), CS 1321 (37), and Math 1501 (28).

The findings revealed that students, if allowed to replace just one low grade (D or F), would experience significant improvements in their GPAs. Many of these students made one “mistake” and are still in good standing. There were 217 students who received at least one D during their first year as a freshman (summer 2002, fall 2002, and spring 2003). By replacing a D with:

- A, 78% (169) would improve to a 3.0 or better
- B, 48% (103) would improve to a 3.0 or better
- C, 22% (48) would improve to a 3.0 or better

Of the original students who were enrolled as HOPE students from Georgia, 110 did not return to Tech in fall of 2003 and 60 more did not return in spring of 2004. HOPE scholarship is evaluated after students have taken at least 30 hours. Students have found a way to stretch their HOPE grant through three semesters by making sure they have attempted less than 30 hours their first two semesters, allowing them to return another term at Georgia Tech on the scholarship. By spring 2003, there were 1,275 students in the freshman 2002 cohort who were HOPE recipients. Only 22% had over 30 hours at the end of spring 2003 while 78% had less than 30 hours going into the fall term.

Since many students did not take over 30 credit hours their first year, the HOPE analysis included data from their entire first year through fall of 2003. GPAs were recalculated using their fall 2003 data. There were 177 HOPE students who made at least one D within their first year and a half. The data revealed by replacing one D (worth 3 or 4 credit hours) and using their fall 2003 cumulative GPA:

- A, 35% (62) would improve to a 3.0 or better
- B, 23% (40) would improve to a 3.0 or better
- C, 12% (21) would improve to a 3.0 or better
By replacing grades from lower level courses in their first year, students at Tech may have the opportunity to keep or maintain the HOPE scholarship. This could result in a number of students being retained who lost the scholarship and left. Many more students who lost HOPE remained at Georgia Tech. This policy may help financially, allowing them to redeem their GPA to a 3.0 or higher and either keep the scholarship or to get the scholarship back.

**Summary of Data**

Data from the study including students in good academic standing shows there are 545 students from the 2002 freshman cohort who had a cumulative GPA at the end of spring 2003 between 2.5 and 2.99. The overwhelming majority of these students were in good standing, but many received a D or an F in their first year attending Tech. This phase of the study analyzed the effect on cumulative GPAs when changing D or F to a higher letter grade.

The majority of the low grades made by those students who had a 2.5-2.99 were in Math 1502 (53), Phys 2211 (38), CS 1321 (37), and Math 1501 (28). Students given the opportunity to retake courses could experience positive changes in their GPAs, especially if the courses were taken early on. The students in this study may have made just one or two mistakes; this policy would allow students a second chance; changing a poor grade to a better grade allowed GPAs to be improved significantly. The study included students who had a 2.5-2.99 GPA at the end of spring 2003. Then, those who received at least one D or one F in their first year at Tech were analyzed. Some students included in the study had multiple Ds, but were only included in the analysis once.

Students who received more than one D were only looked at once using the D worth the most credit hours. In other words, if a student had 2 Ds, one worth three credit hours and one worth four credit hours, only the four hour letter grade was replaced. Limiting the number of Ds, students were not counted twice in the analysis.

There were 217 students who received at least one D during their first year as a freshman (summer 2002, fall 2002, and spring 2003). By replacing a D with:

- A, 78% (169) would improve to a 3.0 or better
- B, 48% (103) would improve to a 3.0 or better
- C, 22% (48) would improve to a 3.0 or better

The graph on the following page depicts the GPA improvements of students with a 2.5-2.99 at the end of their first year.
Of those students in the freshman 2002 cohort, 39 made one F in their first year at Tech. If one F was replaced:

A, 90% (35) would improve to a 3.0 or better
B, 74% (29) would improve to a 3.0 or better
C, 33% (13) would improve to a 3.0 or better

Below is a graph depicting the GPA improvements of students with a 2.5-2.99 at the end of their first year, if one F was replaced with a better grade:
**HOPE Scholarship Students**

Keeping the HOPE scholarship is an issue Georgia residents consider when thinking about affordability and the decision to return another year. The HOPE scholarship is given to Georgia residents who have earned at least a 3.0 GPA in high school. HOPE students in the freshman 2002 cohort were examined to determine the effects of the proposed grade substitution policy on their Georgia Tech GPAs.

Of the original students who were enrolled as HOPE students from Georgia, 110 did not return to Tech in fall of 2003 and 60 more did not return in spring of 2004. HOPE scholarship is evaluated after students have taken at least 30 hours. Students have found a way to stretch their HOPE grant through three semesters by making sure they have attempted less than 30 their first two semesters, allowing them to return another term at Georgia Tech on the scholarship.

The transcripts of students who received HOPE were analyzed for their entire freshman year plus one semester due to the fact that many do not have 30 hours until the end of fall 2003. The analysis took into account all Ds and Fs students received in those terms from summer 2002 to fall 2003. The majority of students who are HOPE recipients and have left Tech fell below a 2.4. At this point, most would have to work for several semesters in order to redeem their GPA to a 3.0 or higher to keep HOPE. Of the 170 who did not return to Georgia Tech, 69% left with a GPA that was less than a 2.4.

By spring 2003, there were 1,275 students in the freshman 2002 cohort who would be considered HOPE recipients. Only 22% (281) had over 30 hours at the end of spring 2003 while 78% (994) had less than 30 hours going into the fall term. Of those that had taken over 30 hours their first year, 73% (205) had a cumulative GPA of 3.0 or higher. Those with 30 or more hours at the end of their first year were also more likely to stay another year at Georgia Tech. Of the 281 who had over 30 hours their first year, only eight were not enrolled by spring of 2004.

![Freshman Cohort 2002 Spring 2003 Credit Hours](image)

The average cumulative GPA for students who had over 30 hours was a 3.28, the average GPA for students with less than 30 hours was a 2.72. Students are making an effort to stay on at
Tech an extra semester. However, if HOPE is lost the next term, it does not seem to affect a large number of students. Many remain despite dropping below a 3.0. The majority of students who are leaving drop well below a 2.0 and even with replacing two grades their HOPE scholarships would not be saved. But, this policy could allow more students to remain on HOPE, giving them a chance to return their GPA to above a 3.0.

Records of HOPE scholarship recipients who had a GPA between 2.4 and 2.99 at the end of fall 2003 were analyzed in order to evaluate whether the proposed grade substitution policy would have an effect on their retention of the scholarship. HOPE students were evaluated based on whether they received a D or F in summer 2002 through fall 2003. GPAs were recalculated using the letter grade that was worth the most credit hours. Therefore if a student received two Ds, one worth three credit hours and one worth four credit hours, the D worth four hours was counted. Students were counted once.

There were 177 HOPE students who made at least one D within their first year and a half. The data revealed by replacing one D (worth 3 or 4 credit hours) and using their fall 2003 cumulative GPA:

- A, 35% (62) would improve to a 3.0 or better
- B, 23% (40) would improve to a 3.0 or better
- C, 12% (21) would improve to a 3.0 or better

Students who received one F or more were also analyzed to see the effects of the proposed grade substitution policy. There were 64 HOPE students who received one F during their first year and a half.

![Graph showing HOPE students replacing one D](image)
The data revealed by replacing one F (worth 3 or 4 credit hours) and using their fall 2003 cumulative GPA:

A, 36% (23) would improve to a 3.0 or better
B, 14% (9) would improve to a 3.0 or better
C, 9% (6) would improve to a 3.0 or better

At the end of fall 2003, there were still 41 HOPE students who had less than 30 hours completed. Over half of those had less than a 2.4, while 30% had a GPA above 3.0. There are a large number of students who have been able to hold onto their HOPE scholarship through fall 2003. At the end of fall 2003, there were 1,151 students who had over 30 hours completed. Of those, half had a 3.0 or greater, 28% had between a 2.4 and a 2.99. The proposed grade substitution policy could have a positive effect on those in the latter range.

Conclusions
The majority of students who are in the 2.4-2.99 cumulative GPA range have made one low grade in one course. This policy would allow students to retake the course and make up a low grade with a better one. Students who are allowed to do this could potentially keep their HOPE scholarship or perhaps when graduating would be more competitive when applying to graduate school.

The data showed that students who fall into the 2.4-2.99 cumulative GPA range could improve to a 3.0 or higher. Replacing a D with an A would improve 169 students in the 2002 cohort to above a 3.0. The HOPE scholarship could potentially be retained by 62 students with the proposed grade substitution policy.
Some of the other potential implications of the proposed policy are subjective, however. Students may be more apt to master the material after taking the course twice. With the motivation to do well, students may be absorbing more of the material in the second run (although students should be expected to do well the first time). The retaking of courses may also extend the length of time it takes individuals to complete their degree but for students’ GPAs and retention of the HOPE scholarship, the proposed policy will enable students to have the option of improving their academic experience. Such improvements could play a role in retention, decisions about graduate education and future career options.