

An Evaluation of the Hilbert College Honors Program's Effectiveness in Terms of Graduation and Fall to Fall Retention Rates

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EXECUTIVE SUMMARY

- An analysis of the graduation rates of 276 FTC, full time, degree seeking Hilbert College presidential scholarship students and honor students from the 1999-2008 cohorts indicated that there was not a significant relationship between involvement in the honors program and graduation rates. However, honor students (78%) had higher graduation rates than presidential scholarship students (71%).
- Significant relationships were found among the fall to fall retention rates of the FTC, full time, degree seeking 2010 and 2011 cohorts' honor students, presidential scholars and students from the general population. Within the 2010 and 2011 cohorts more honor students (100%) were retained from fall to fall than presidential scholars (75%) and students from the general population (65%).
- Differences among the number of total completed fall semesters of the FTC, full time, degree seeking 2010 and 2011 cohorts' honor students, presidential scholars and students from the general population were also found to be statistically significant. Honor students' (3.23) completed more fall semesters than presidential scholars (2.54) and the general student population (2.36).
- A comparison of honor students and presidential scholars' high school GPAs indicated that presidential scholars (91.75) had significantly higher GPAs than honor students (90.21).

PURPOSE

This report was developed to investigate the effectiveness of the Hilbert College Honors Program as defined by a comparison of graduation and retention rates between FTC, full time, degree seeking honor students and Presidential Scholarship recipients. The following data may be helpful for forming a better understanding of Hilbert College's highest academically achieving students, as well as the actual impact of the Honors Program.

The Honors Program and the President's Scholarship

	Honors Program	President's Scholarship
Requirements	<ul style="list-style-type: none"> • Students must apply before assuming junior status. • Maintain full time status and a minimum cumulative 3.5 GPA. • Complete 20 hours of community service, one honor's project each semester and a senior capstone project. • Participate in one honor's colloquium course. • Mentor a first-year honor student for a semester. 	<ul style="list-style-type: none"> • "Awarded by the Office of Admissions to ALL high school senior(s) who have achieved a scholastic average of 90 or higher in a college preparatory curriculum in high school" (Hilbert scholarships & institutional grants, n.d.). • Renewable on an annual basis if students' maintain a minimum 3.0 GPA.
Benefits	<ul style="list-style-type: none"> • Priority registration. • Access to a private lounge with computers. • Opportunities to travel. • Extra library privileges. • More one-on-one interaction with faculty. 	<ul style="list-style-type: none"> • An annual \$5,000 scholarship.

DATA SOURCES AND METHODOLOGY

Students from the 1999 – 2012 cohorts that were involved in the honors program were identified by Dr. Amy Smith, Director of the Hilbert College Honors Program. The names of those students were then matched with their respective demographic, retention and graduation student information obtained from student records (ARGOS).

To objectively measure the effectiveness of the Honors Program, it seemed reasonable that honor students' graduation rates should be compared to a similar group of academically gifted students. Every student that is offered a Presidential Scholarship is invited to participate in the Honors Program, because in high school they "achieved a scholastic average of 90 or higher in a college preparatory curriculum" (Hilbert scholarships & institutional grants, n.d.). However, some students that have not received the Presidential Scholarship enter the Honors Program after they have finished a semester or more at Hilbert College, based on the recommendation of a faculty member and having attained a cumulative 3.5 GPA or higher.

Since honor students are required to maintain a cumulative 3.5 GPA or higher to stay in the program and presidential scholars have to maintain an overall 3.0 GPA to keep their scholarship, it could be argued that honor students and Presidential Scholarship recipients' exhibit a similar academic rigor. Since both groups likelihood to achieve seems reasonable, a comparison of these groups' should indicate the Honors Program's direct impact on student retention and graduation.

Drawing from the notion that presidential scholars and honor students have similar high achieving academic backgrounds, presidential scholars' served as the comparison group for honor students' graduation rates, fall to fall retention rates and the total number of completed fall to fall semesters. Student Record's (ARGOS) identified the presidential scholars from the 1999–2012 cohorts, along with their graduation, retention and demographic information.

RESULTS

Honor Student and Presidential Scholars' Demographics from the 1999-2012 Cohorts

The following information can be found on Table 1. Within the 1999 – 2012 cohorts there were a total of 433 FTC, full time and degree seeking honor students and presidential scholars (Note: No transfer students were included). From this sample 123 students were identified as being in the Honors Program and 310 students were recognized as being recipients of a Presidential Scholarship who did not choose to participate in the Honors Program. Within the Honors Program there were 38 (31%) males and 85 (69%) females, of which 107 (87%) indicated that they were white, 9 (7%) identified as being a part of a minority group and 7 (6%) did not indicate their ethnicity. Out of the presidential scholars there were 112 (36%) males and 198 (64%) females, of which 261 (84%) identified as being white, 28 (9%) indicated that they were a part of a minority group and 21 (7%) did not disclose their ethnicity.

A cross-tabs analysis indicated that compared to the distribution of presidential scholars, students in the Honors Program are somewhat overrepresented among DMAC, English, Psychology, Paralegal, Liberal Studies and Political Science majors, and underrepresented among CJ and Accounting majors. Commuter and resident students' were not included in this demographic information, because there were not significant differences found among these two groups. Also, since there were not significant differences found between gender and ethnicity, those two variables were not included in the following analyses.

Table 1. Total honor students and presidential scholars from the fall 1999-2012 cohorts by gender and ethnicity

Group	N	Male	Female	White	Minority	Unknown
Honor Students	123	38 (31%)	85 (69%)	107 (87%)	9 (7%)	7 (6%)
Presidential Scholars	310	112 (36%)	198 (64%)	261 (84%)	28 (9%)	21 (7%)
Total	433	150 (35%)	283 (65%)	368 (85%)	37 (9%)	28 (6%)

Graduation Rates for Honor Students and Presidential Scholars from the 1999–2008 Cohorts

Table 2 depicts the 1999-2008 cohorts' graduation rates for honor students and presidential scholars' that graduated and had the chance to graduate, but did not complete a degree. For the purpose of this analysis graduated students are those that have graduated from Hilbert College, regardless of whether it was on time or not. Students that are identified as not graduating from Hilbert College have been operationalized as students that are no longer enrolled and did not graduate, because they were not retained. All enrolled students from the 1999-2013 cohorts were not included in this analysis.

Table 2. Graduated and Non-Graduated honor students and presidential scholars' graduation rates

Group	N	Graduated	Did Not Graduate
Honor Students	67	52 (78%)	15 (22%)
Presidential Scholars	154	110 (71%)	44 (29%)
Total	221	162 (73%)	59 (27%)

On Table 2 it can be seen that there were a total of 221 honor students and presidential scholars from the 1999-2008 cohorts that had graduated or not graduated. Out of the 67 honor students, 52 (78%) graduated and 15 (22%) did not graduate. There were 154 presidential scholars, of which 110 graduated (71%) and 44 (29%) did not graduate.

Table 3. Pearson Chi-Square test for graduated and non-graduated honor students and presidential scholars

	N	Value	DF	Asymp. Sig. (2-Sided)
Pearson Chi-Square	221	.912	1	.340

Table 3 depicts a Pearson chi-square test that was performed to evaluate the relationship between graduated and non-graduated honor students and presidential scholars' graduation rates. There was not a significant relationship between these variables $\chi^2(1, N = 221) = .912, p > .340, V = .064$. However, by reviewing Table 2 it can be seen that honor students had higher graduation rates (78%) than presidential scholars (71%).

The 1999-2012 Cohorts' Honor Students and Presidential Scholars High School GPAs

Table 4. Independent sample t-test for honor students and presidential scholars high school GPA

Group	N	Mean	STD
Honor Students	117	90.21	4.76
Presidential Scholars	307	91.75	1.82

An independent samples t-test was performed to compare honors students and presidential scholars' high school GPAs. A significant difference was found between honor students ($M = 90.21, SD = 4.76$) and presidential scholars' ($M = 91.75, SD = 1.82$) high school GPAs $t(129.11) = -3.39, p = .01$. By reviewing Table 4 it can be seen that honor students have lower high school GPAs than presidential scholarship students.

The Fall 2010 & 2011 Cohorts' Demographics for Honor Students, Presidential Scholars and Students from the General Population.

As seen on Table 5, within the fall 2010 and 2011 cohorts there were a total of 477 students. Within these cohorts there were 31 honors students, of which 11 (35.5%) were male and 20 (64.5%) were female. Out of the 72 presidential scholars 28 (39%) were male and 44 (61%) were female. The general population included 374 students that were made up of 183 (49%) males and 191 (51%) females. Although gender is represented on Table 5, the following analyses of retention do not depict gender differences between groups, because there were not significant differences found.

Table 5. Honor students, presidential scholars and the general student population from the fall 2010 & 2011 cohorts by gender

Group	N	Male	Female
Honor Students	31	11 (35.5%)	20 (64.5%)
Presidential Scholars	72	28 (39%)	44 (61%)
General Population	374	183 (49%)	191 (51%)
Total	477	222 (47%)	255 (53%)

The Fall 2010 & 2011 Cohorts' Fall to Fall Retention Rates for Honor Students, Presidential Scholars and Students from the General Population

To assess the recent effectiveness of the Hilbert College Honors Program the fall to fall retention rates of honor students, presidential scholars and students from the general population in the fall 2010 & 2011 cohorts is compared on Table 6.

Table 6. Fall to fall retention rates for honor students, presidential scholars and the general student population from the 2010 & 2011 cohorts

Group	N	Retained	Not Retained
Honor Students	31	31 (100%)	0 (0%)
Presidential Scholars	72	54 (75%)	18 (25%)
General Population	374	242 (65%)	132 (35%)
Total	477	327 (69%)	150 (31%)

Table 6 indicates that 31 (100%) honor students were retained and 0 (0%) were not retained, while 54 (75%) presidential scholars were retained and 18 (25%) were not retained from fall to fall. Also, 242 (65%) students were retained from the general population and 132 (35%) were not retained from fall to fall.

Table 7. Pearson Chi-Square test for the fall to fall retention of honor students, presidential scholars and the general student population from the 2010 & 2011 cohorts

	N	Value	DF	Asymp. Sig. (2-Sided)
Pearson Chi-Square	477	18.176	2	.000

As can be seen on Table 7 a Pearson chi-square test was performed to evaluate the 2010 and 2011 cohorts' honor students, presidential scholars and students from the general population's relationship with fall to fall retention. The relationship between these variables was found to be significant $\chi^2(2, N = 477) = 18.176, p < .01, V = .20$. Definitely, by looking at Table 6 it can be seen that more honor students (100%) were retained from fall to fall than presidential scholars (75%) and students from the general population (65%).

The Fall 2010 & 2011 Cohorts' Honor Students, Presidential Scholars and Students from the General Populations' Total Number of Fall Semesters Completed

Table 8. One-way ANOVA test for the fall 2010 & 2011 cohorts' honor Students, presidential scholars and students from the general populations' total number of fall semesters completed

Group	N	Mean	STD
Honor Students	31	3.23	.669
Presidential Scholars	72	2.54	1.10
General Population	374	2.36	1.11

Using a one-way ANOVA to investigate the total number of fall semesters completed of honor students, presidential scholars and the general student population from the 2010 & 2011 cohorts, it was found that there were statistically significant results between groups $F(2, 474) = 11.66, p < .001$. A Games - Howell post-hoc test revealed that honor students ($M = 3.23, SD = .669$) were retained for a statistically significant longer period of time than presidential scholars ($M = 2.54, SD = 1.10, p = .001$) and the general student population ($M = 2.36, SD = 1.11, p < .001$). Also, although presidential scholars were retained longer than students from the general population, this difference was not statistically significant.

CONCLUSIONS

- The findings from this study show that there is not a statistically significant difference between honor students and presidential scholars' graduation rates. However, honor students did still have higher graduation rates than presidential scholars. Furthermore, honor students did have statistically significant higher fall to fall retention rates and were retained for a greater number of fall semesters than presidential scholars and students from the general population.
- These results may indicate that academically gifted students' involvement in the Honors Program can increase their likelihood staying at Hilbert College.
- The statistically significant difference found between presidential scholars and honor students' high school GPAs adds further weight to the idea that the Honors Program has a direct effect on increasing students' odds of being retained. In a study done at Oregon State University on 8,867 undergraduate students' retention rates, Murtaugh, Burns and Schuster (1999) found that students with higher high school GPAs were more likely to be retained than their counterparts. Since presidential scholars were found to have statistically significant higher high school GPAs than honor students, it would appear that they would be more likely to be retained, when in fact honor students have higher retention rates. This could mean that students' involvement in the Honors Program can help to increase their likelihood of staying at Hilbert College, regardless of their past

academic background. Also, these findings may indicate that although honor students may not be the most academically gifted, they are the most committed.

- Alternatively, students that choose to take part in the Honors Program may already be more likely to be retained and graduate, because those students could already exhibit high levels of student engagement, they may be more apt to join the Honors Program than the presidential scholars who choose to not take part in it.
- Since the Honors Program does seem to have a positive impact on student retention and graduation, it would seem imperative that students from a variety of demographic backgrounds and majors become involved in it. However, from looking at the Honors Program over the past 12 years, it appears that there have been substantially more females than males and more whites than minority students. This may be due to the fact that the presidential scholars have a very similar demographic make-up. It could be suggested that Hilbert College admissions should try to reach out to more academically gifted males and minority students.
- Also, there seems to be an overrepresentation of DMAC, English, Psychology, Paralegal, Liberal Studies and Political Science majors in the honors program, while CJ and Accounting majors are underrepresented. Since the Honors Program's extra projects and classes are primarily writing based it could be said that the underrepresented majors, which are not writing based, may be less inclined to join the Honors Program.
- Lastly, future research should attempt to obtain qualitative data from presidential scholars that did not take part in the Honors Program, to find out how the program could be changed to attract more students. Also, focus groups should be held with honor students to key in on the effective nature of the Honor Program's ability to meet its mission as a program that "provides an intellectual learning experience for Hilbert's top students in a challenging setting that fosters excellence. Honors students explore new knowledge through honors-related coursework, colloquium experiences and community service, and learn to respect a diversity of opinions" (Undergraduate Honors Program, n.d.).

REFERENCES

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