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The Impact of Honors Programs on Undergraduate Academic Performance, Retention, and Graduation

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ABSTRACT

This study examines the academic performance, retention, and degree-completion rates of two groups of honors students, those who completed all their honors program requirements (honors completers; n = 30) versus those students who started off in honors programs but did not complete these program requirements (partial honors students; n = 82). These two sets of honors students are then compared to a third group of similar students, those who had comparable pre-college academic credentials as the honors students, but who did not participate in an honors program (called high-ability students; n = 108). These three student groups entered three Pennsylvania State System of Higher Education universities as first-time, full-time freshmen in fall 1997. The study encompasses a five-year period, from fall semester 1997 through spring semester 2002. The study design is ex post facto and longitudinal, using secondary data primarily obtained from the institutional research offices at the respective study sites.

The results show that three out of every four students who begin honors programs fail to complete them. Honors program completers have the highest academic performance and graduation rates, and shortest time to degree completion, compared to other high ability students, including partial honors students. The analysis strongly suggests that partial exposure to the honors program does not significantly enhance academic performance, graduation rates, time to degree, nor length of enrollment beyond what is achieved by other high-ability students who were never part of these programs. These findings control for the effects of student, institutional, and honors program characteristics at the three universities cooperating in the study.

BACKGROUND AND JUSTIFICATION FOR THE STUDY

Honors programs exist in two primary forms, university-wide honors, also known as general honors, and departmental honors. Honors colleges are a third form of honors programs, however, structurally and administratively they are more similar

to university-wide honors programs than to departmental honors programs. University-wide honors programs, which are the focus of this study, are open to all academically eligible students regardless of major or department and primarily focus on general education requirements.

Since the establishment of modern honors programs in the 1920s, there have been two distinct periods of growth in the number of these programs. The first period of growth happened during the buildup of the Cold War as a U.S. response to the launching of the Soviet's Sputnik satellite. The second expansion occurred during the latter half of the twentieth century, when colleges began to view these programs as a way to draw talented students to their campuses during a time of increased competition for students (Long, 2002; Baker, Reardon, & Riordon, 2000). Today there are nearly 1,000 honors programs existing at public and private colleges and universities nationwide, including all 14 universities in the Pennsylvania State System of Higher Education (SSHE).

Despite the proliferation in the number of honors programs, they are a relatively unstudied aspect of higher education. For instance, Pascarella and Terenzini (1991) synthesized over 2,600 empirical studies conducted over 20 years in their comprehensive book concerning the impact of college on students. None of the cited studies focuses on honors program experiences. In addition, the few published studies on honors programs that have appeared in research-oriented educational journals have examined honors programs as they are implemented at two-year colleges, while even less attention has been given to them at four-year institutions.

Proponents claim that honors programs yield many student and institutional benefits, including increased student retention (Austin, 1986; Schuman, 1999), enriched academic experiences (Ory & Braskamp, 1988; Tacha, 1986), increased graduation rates (Astin, 1993), greater institution prestige and fundraising capacity, improved ability to attract and retain high-quality faculty, and as one spillover of these and other factors, honors programs purportedly raise intellectual standards across the campus (Austin, 1986). Most of these alleged benefits, however, are based upon descriptive, single-institution studies or anecdotal evidence rather than multi-site empirical data (Bulakowski & Townsend, 1995; Coursol & Wagner, 1986; DeHart, 1993; Outcalt, 1999).

While honors program advocates and educational scholars have made claims that participation in honors programs leads to increased graduation rates, they do so without differentiating the honors experiences of students who complete all of their honors program requirements from those who do not. This is a shortcoming in all honors research reviewed in preparation for this study, and runs the danger of ascribing benefits to these programs that may not exist.

Previous research on the retention aspects of honors programs has been very limited, though what work has been published only examined first-year retention rates (Pflaum, Pascarella, & Duby, 1985). Previous studies that have examined the graduation rates of honors students did not compare honors students against a control group of academically similar students who chose not to join these programs (Astin, 1993). No previous retention or graduation studies of honors program participation divided honors students into two separate groups, those who fulfilled all

of their honors program requirements and those who did not. This study sought to redress these oversights.

METHODS

Considerations of access and budget led this study to concentrate on the 14-member Pennsylvania State System of Higher Education (SSHE). Three of SSHE's 14 universities were selected for analysis. These sites were chosen over the others because their university presidents allowed their honors programs to be studied and because each site had the institutional research capacities to supply the data needed for the study. Additionally, there were two other site selection considerations. The first was to avoid selecting honors programs that were significantly different from other programs within SSHE. This decision eliminated one program because the organization of its honors program is radically different from all other SSHE honors programs. A second selection criteria was to avoid sites that significantly changed the structure of their honors programs during the study's time period. This excluded one university, which evolved from a largely departmental to a largely university-wide honors program during this time.

The three study universities are located in different parts of the state and are homogenous. All are public, four-year colleges, with substantially White and female majority enrollments similar in size. Resident undergraduate tuition charges are identical at these sites and all participating sites held a Master's I Carnegie Classification during the 1997-98 academic year.

The research design is ex post facto and longitudinal, using secondary data primarily obtained from the institutional research offices at the respective study sites. The study encompasses a five-year period, from fall semester 1997 through spring semester 2002. This study compares the academic performance, retention, and graduation rates of three groups of students: honors program completers (n = 30); partial honors students (n = 82); and high-ability non-honors students (n = 108).

A goal of this study is to compare students with similar academic abilities. This comparison is based on SAT scores and high school class ranks. Preliminary data analysis reveals that 90 percent of students who entered honors programs as freshmen were ranked in the top quintile of their high school classes. To best ensure as similar a match between honors and high-ability non-honors as possible, only honors students who entered college in fall of 1997 as first-time, full-time freshmen in the top quintile of their high school classes were chosen for analysis.

Being honors-qualified at one site does not necessarily align with qualification at the other sites. The study needed a single definition of high-ability non-honors students across the three study sites. This was set at 1150 or better SAT scores (the lowest SAT score among the study sites) and, consistent with the standard set for honors students, a high school class rank in the first quintile. This led to three populations that were closely matched.

RESEARCH QUESTIONS AND SUMMARY OF FINDINGS

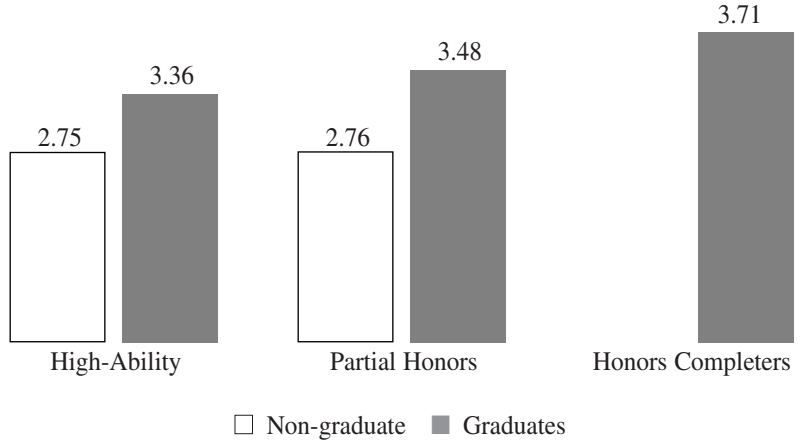
This study addresses three research questions. First, controlling for student background factors and campus characteristics, is there a difference in the post-matriculation academic performance and graduation rates of honors completers, partial honors students, and high-ability students? Second, among those students who graduated, do honors students graduate more quickly than similar high ability non-honors students? Third, among the students who did not graduate, is there a difference in the retention rates of partial honors students compared to high-ability students, controlling for relevant background factors?

ACADEMIC PERFORMANCE AND GRADUATION RATES

Chart 1 shows the academic performance of the graduates and non-graduates among the three populations. Honors completers have the highest mean GPA (3.71), followed by partial honors students (3.35) and high-ability students (3.22). Within each group, the graduates have a higher mean GPA than the non-graduates (note: there is a 100 percent graduation rate among honors completers). For example, among partial honors students the graduates have a mean GPA of 3.48, whereas the non-graduate GPA is 2.76. Similarly, among the high ability students the mean GPA of the graduates is 3.36, compared to 2.75 for the non-graduates. Independent samples T-tests revealed that there is a statistically significant difference in the cumulative GPA of honors completers compared to partial honors ($p<0.001$) and to high-ability students

CHART 1

CUMULATIVE MEAN GPA AMONG THE THREE STUDY GROUPS



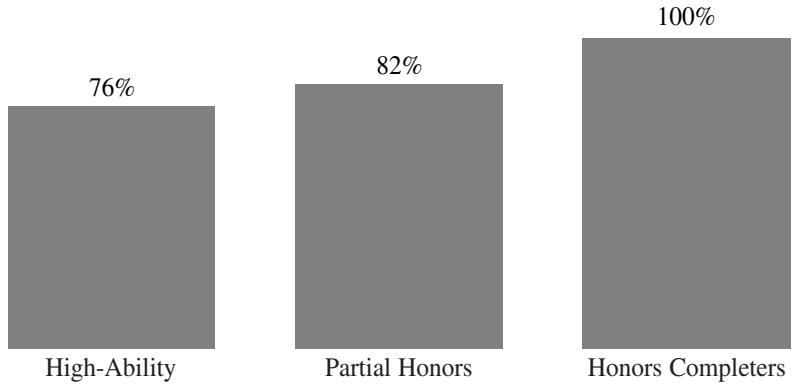
($p<0.001$), there is not a statistically significant difference in the cumulative GPA between partial honors students and high-ability students ($p<0.103$). The statistically significant differences between honors completers and partial honors and high-ability students, and the statistically insignificant difference in academic performance between partial honors and high-ability students all hold when the effects of control variables (sex, SAT score, major) are taken into account. Thus, the academic performance of partial honors students is more like that of high-ability (non-honors) students than like the performance of honors completers.

Chart 2 shows the five-year graduation rates of the three groups. A total of 112 students began their collegiate careers in honors programs at the three study sites. The honors program completion rate was a low 27 percent (30 out of the 112 students who began in honors as freshmen). Thus, nearly three in four honors freshmen dropped out or otherwise failed to fulfill all of their honors program requirements. Honors completers had a 100 percent graduation rate. While it is theoretically possible that honors completers could complete all of their honor requirements and not graduate (perhaps by failing to obtain enough departmental credits to graduate), this is unlikely and did not occur in this study.

Among the 82 students who did not complete their honors program requirements, 15 dropped out of their entering college or failed to graduate during the five-year period of this study. The remaining 67 partial honors students graduated from their entering university. The overall graduation rate, therefore, of partial honors students was 82 percent. The graduation rate of partial honors students varied across the three study sites, from a low of 63 percent to a high of 90 percent. The graduation rate of high-ability non-honors students averaged 76 percent across the study sites, ranging from a low of 50 percent to a high of 78 percent. The graduation rates of honors completers, partial honors, and high-ability students significantly exceed

CHART 2

FIVE-YEAR GRADUATION RATES AMOUNG THE THREE STUDY GROUPS



the graduation rates of the general student body on each campus. Chi-square tests revealed that difference in graduation rates between high-ability and partial honors students is not statistically significant ($p<0.337$). However, the difference in the graduation rates between honors completers and high-ability students is statistically significant ($p<0.003$), as is the difference in the graduation rates between honors completers and partial honors students ($p<0.012$).

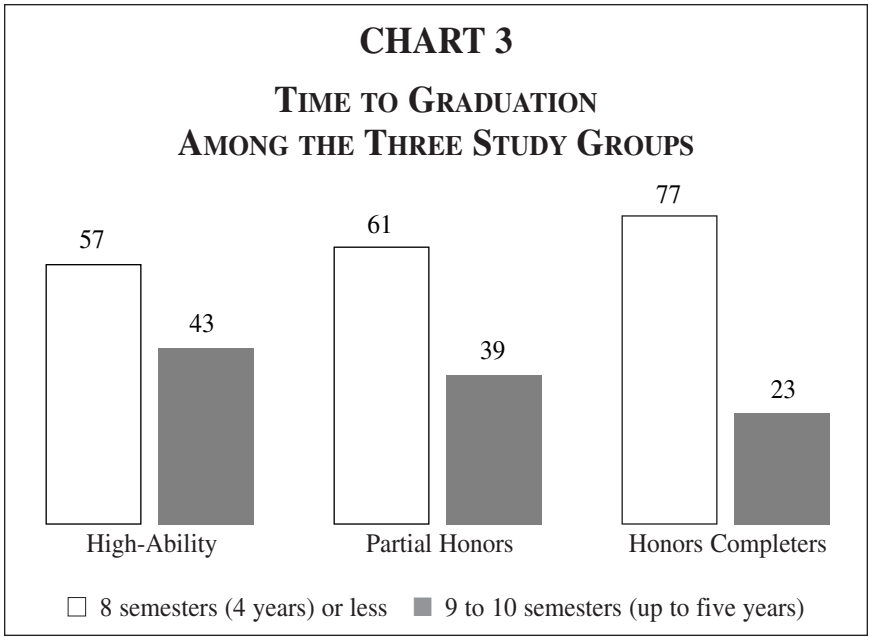
The differences in the graduation rates and mean GPA of completers is significantly higher than that of partial honors and high-ability students. Between partial honors and high-ability students the differences in graduation rates and cumulative GPA are not significant. Thus participating in, but not completing the honors curriculum, does not significantly affect GPA or graduation rates compared to a control group of high-ability students who were never enrolled in these programs. Because honors completers have a 100 percent graduation rate the multivariate analysis for this study concentrated on the comparison between the partial honors students and the high ability students. Controlling for sex, SAT score, and academic major, the analysis indicates that partial honors students are more like high-ability students than they are like honors completers. Phrased another way, partial exposure to the honors program experience does not significantly enhance graduation rates nor academic performance beyond what is achieved by other high-ability students who were not part of these programs.

TIME TO GRADUATION

The second research question examines the time to degree for these three populations. This research question seeks to answer whether among those students who graduated, do honors students graduate more quickly than partial honors or high ability non-honors students? Chart 3 shows the percent of each population that graduated in 8 semesters or less versus nine or ten semesters. As a three site aggregate, 77 percent of honors completers graduated in four years or less (eight semesters, excluding summers), compared to 61 percent of partial honors, and 57 percent of high-ability students. Again, the performance of the partial honors group is more like the high ability population than like the honors completers.

LENGTH OF RETENTION AMONG NON-GRADUATES

The third research question asks, among the students who did not graduate, is there a difference in the retention rates of partial honors students compared to high-ability students, controlling for relevant background factors? There were no dropouts among honors completers. Twenty-six high-ability students (24 percent) dropped out or otherwise failed to graduate the five-year period of this study. In contrast, 15 partial honors students (18 percent) failed to graduate. The average length of enrollment among high-ability non-graduates was 5.1 semesters, compared 4.8 semesters for partial honors students. An independent samples T-tests revealed that the difference in average length of enrollment between these two groups of non-graduates is statistically insignificant ($p<.0.713$). Therefore student status (partial or high-ability) is not



a statistically significant factor in number of semesters enrolled by those who failed to graduate. This remains true even after controlling for sex, SAT score and major.

CONCLUSIONS

Proponents of honors programs assert that these programs yield many individual and institutional benefits, yet these claims generally have not been empirically verified. Investigations of the honors program experience generally focus on honors students needs, perceptions, or satisfaction at a single institution, but fail to differentiate the varying treatment effects of honors program completion versus partial participation, and only one other study has used a control group of talented non-honors students. These oversights were addressed in this study, while controlling for the effects of student, institutional, and honors program characteristics.

The analysis indicates that the outcomes of partial honors students are more like those of high-ability students than they are like those of honors program completers. If state, system, or campus officials are concerned about these student outcomes, this study indicates that honors program completers have the highest academic performance and graduation rates, and shortest time to degree compared to other high ability students, including students who enter honors programs but do not complete them. Much remains to be investigated before the honors program experience is fully understood. However, this analysis suggests that partial exposure to the honors program does not significantly enhance academic performance, graduation rates, time to degree, nor length of enrollment beyond what is achieved by other high-ability students who were never part of these programs.

STUDY LIMITATIONS

The study has several limitations, including the following. First, it focuses only on university wide (general) honors programs, so no extrapolations should be made for departmental honors programs. Second, it examines one entering freshmen cohort at three Pennsylvania-owned universities, all of which are relatively homogeneous and mainly non-urban public universities of similar size, mission, finances, and admissions. At all three, the general student body, honors students, and high-ability students are, notably, overwhelmingly White and female. Inferences to private and more highly selective institutions with different population profiles may therefore be limited. Third, it could not be determined if high-ability students took any honors or department honors classes, how many if they did, nor what the effects this may have had on their academic performance and retention. Fourth, because data was not collected directly from students there was no way to measure attitudes, goals, and motivation. Motivation and goal commitments are important considerations as both are documented by the scholarly literature to be well-established positive influences upon retention and graduation behaviors. Fifth, the small number of study sites (three) and students examined (n = 220) may have produced study results that might not be duplicated by a larger scale study.

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