Why Not Honors? Understanding Students' Decisions Not to Enroll and Persist in Honors Programs

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INTRODUCTION

In recent years, retention and graduation of honors students have received increasing attention in scholarly literature. In the spring of 2013, as a part of the strategic planning process, the South Dakota State University (SDSU) Van D. and Barbara B. Fishback Honors College invited current honors students to complete an online survey aimed at collecting information about the key factors that affected students' initial decision to enroll in the honors college, the main reasons affecting their decision to continue their enrollment, and the challenges and levels of satisfaction they experienced. Study results indicated that most students were highly satisfied with their honors experience, smaller classes, opportunities to enhance their leadership and intellectual growth, and close connection with honors faculty and their peers

(Nichols and Chang). In 2014, as an extension of the 2013 study, a team of researchers set out to further explore the other side of these issues: why not honors? What factors influence students' decisions whether to enroll or not to enroll and persist through graduation with honors? While this research is based on students at South Dakota State University, insights gained may be relevant to other honors programs and professionals seeking to better understand and serve their students.

LITERATURE REVIEW

In 2013, Herron provided evidence that high school GPA and ACT scores were the best predictors of honors student retention and graduation at Wayne State University. In their research at Oklahoma State in 2008, Campbell and Fuqua found high school GPA, class rank, first-semester college GPA, gender, and freshman honors housing to be the strongest predictors for honors program completion. Keller and Lacy, in their 2013 study of honors students at Colorado State University, found that participation in the university's honors program was associated with meaningful increases in first-year student retention and graduation rates after four, five, and six years. These results compared honors students with individually matched students who did not participate in honors. In 2004, Cosgrove found higher grade point averages, retention, and graduation rates among students who completed the honors program when compared to students who did not enroll in honors and those who completed only a portion of their honors requirements. Similarly, Pflaum, Pascarella and Duby, whose 1985 research controlled for academic variables, reported a higher retention rate for honors students. In 2008, Slavin, Coladarci and Pratt also reported higher first year retention rates for students who had completed honors program requirements.

In his 2004 study, Cosgrove explored whether active involvement in honors made a difference in student retention. He found that honors program completers, on average, had higher grade point averages and a shorter time to degree completion than non-completers. However, Goodstein and Szarek argued in 2013 that these data are skewed by the fact that underperforming honors students are more likely to drop out or be dismissed from the program for their failure to fulfill program requirements, and they suggest that the "dirty little secret" of honors is that, when data are examined on a national level, most students who begin in honors do not graduate as honors scholars. In fact, published information estimates that honors program completion rates float at approximately thirty percent (Goodstein and Szarek). High

dropout rates suggest that programs may not attract students well-suited for their offerings, may not offer attractive curricular and co-curricular offerings to sustain student engagement, may require too much from students, or all of the above. One way to increase program completion rates is to lower program standards; research suggests that those programs not requiring a thesis and those with lower grade-point-average requirements may have higher completion rates. Some universities have addressed the completion issue by instituting "mid-career awards" recognizing student success in the first two years of their honors curriculum as an incentive to motivate students toward program completion (Goodstein and Szarek). On the other hand, Kelly has argued that retention and graduation rates are not the only appropriate measures of honors program effectiveness and that the successful implementation of "high impact practices' across the honors curricular experience (as discussed by Kuh et al) may provide more meaningful insights about program quality.

High school performance has been another focus of research about retention and completion. Smith and Zagurksi found that, while high school GPA helped predict first-semester college GPA, standardized test scores did not and furthermore that none of the single variables under examination was a significant predictor of retention. At Marquette University in 1979, however, McDonald and Gawoski found that high school grade point average and ACT math scores were the strongest predictor of honors program completion, and McKay's study in 2009, which controlled for other variables, found high school GPA to be the strongest predictor of honors program completion.

Research has uncovered a number of reasons for students' opting out of honors, including early graduation, electing additional coursework (e.g. double majors, minors), not finding a thesis topic of interest, or needing time to prepare for professional entrance exams (Holland). While Savage, Raehsler, and Fiedor found that high school GPA was the strongest predictor of honors program completion, their research further suggests that major-specific upper-division requirements (such as student teaching) may impede honors program completion. Other reasons for not completing honors may include institutional structural inadequacies such as a shortage of research advisors, inadequate student preparation for independent research, or a lack of honors academic or programmatic opportunities.

Goodstein and Szarek's 2013 study tracked student honors completion between 1998 and 2010 and thus provides important longitudinal insights. The researchers found that from 1998 to 2002 between 20 and 30 percent of

students completed the honors program at their university while between 2003 and 2008 roughly 40 to 50 percent of students were program completers. These positive shifts mirrored university efforts to improve honors program quality, including reinvigoration of an honors first-year seminar and strengthening of honors housing options. In addition, their research indicated that the later cohort (with the higher program completion rate) came to the university with higher SAT scores. Finally, the higher program completion rates were associated with an increased emphasis on honors students' earning the mid-career award. Importantly, this research demonstrates that program improvements can significantly enhance honors program completion rates.

While the findings of these studies suggest many reasons that students do or do not graduate with honors distinction, the wide variability in honors programs across the country indicates the importance of examining these issues across a range of institutional contexts. Our research contributes to the existing literature by exploring factors that influence students' decisions on whether to enroll and persist through graduation with honors. In addition, we examine these issues through a unique conceptual framework, Ajzen's Theory of Planned Behavior. Finally, this research is particularly valuable in that it examines the perspectives of three groups of honors students, those who were eligible but did not enroll, those who enrolled and discontinued their participation in the program, and those who were persisting in honors.

CONCEPTUAL FRAMEWORK AND HYPOTHESIS

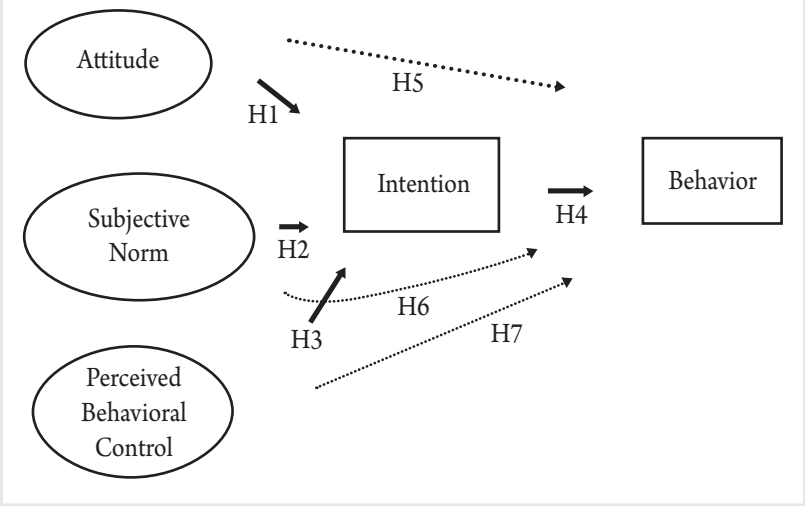
Ajzen's 1991 Theory of Planned Behavior (TPB) has been a useful framework for understanding decision-making and consumer behaviors such as conservation behaviors (Claudy et al.; Kasier et al.; Kalafatis et al.), nutrition and food consumption (Liou and Bauer; Pawlak and Malinauskas), and health behaviors (Schifter and Ajzen; Noar and Zimmerman). TPB may be particularly useful for understanding honors student persistence because of its strength in connecting individuals' intentions with their behaviors.

According to TPB, individuals' behaviors are affected by their intentions to accomplish the behavior, and intentions are affected by people's attitudes, subjective norms, and perceived limitations and challenges. Figure 1 provides a visual summary of the structure of the model.

Definition of Terms

In TPB, *Attitude* (towards the behavior) is defined as a cognitive process through which rational individuals evaluate the pros and cons associated with a particular behavior (Ajzen 188). In this study, *attitude* is defined as a student's positive and negative evaluation of enrolling and graduating from the honors college. The term *Subjective Norms* is defined as the influences on how individuals consider the viewpoint, i.e., approval or disapproval, of their friends, family, or society regarding the behavior in question (Ajzen 195). In this study, *Subjective Norm* is conceptualized as honors students' expected reactions from friends, peers, and family members in regard to their behaviors (i.e. enrolling, continuing, and graduating with honors). We define *Perceived Behavioral Control* as students' perceptions of their physical, financial, and intellectual abilities to continue enrollment and graduate from the honors college; the term includes key internal and external factors that determine the easiness or difficulty of persisting and completing honors requirements. In this study, *Intention* is defined as students' anticipation and willingness to continue enrolling in honors courses and ultimately graduate with honors college distinction. Intention is measured based on the student's answer to the question "Graduating with Honors College distinction is not a priority

Figure 1. Derived from the Theory of Planned Behavior Conceptual Model (Ajzen, 1991)



for me" (Likert scale, 1: strongly disagree, 5: strongly agree). Finally, *Behavior* is measured in this study by whether a student ever joined, discontinued, or continued his or her enrollment in the honors college.

When applied to this study, TPB would postulate that, if a student has a positive view towards the honors college or being an honors student, he or she also has a stronger intention to join and continue in honors. Similarly, when a student holds a positive view about honors (which indicates positive feedback from his or her family, friends, and peers), he or she is more likely to have a stronger intention to join and continue in honors. On the other hand, if a student perceives limitations that will prevent him or her from being successful in honors, his or her intention will decrease. Further, a positive relationship between intention and behavior is predicted, i.e., the stronger a student's desire to join and graduate with honors, the more likely it is that he/she will accomplish this goal. These relationships are shown in Figure 1 with solid arrow lines.

In addition to the basic TPB model, we also assume the direct positive impacts of Attitude, Subjective Norms, and Perceived Behavioral Control on students' behavior. The dashed-arrow lines in Figure 1 indicate these effects.

Based on our literature review and stated assumptions, this study suggests the following seven hypotheses (also illustrated in Figure 1):

- **Hypothesis 1(H1):** Students' attitudes toward joining and continuing an honors education contribute to their intention to join and continue enrollment in honors.
- **Hypothesis 2 (H2):** The social norms toward graduating with honors college distinction affect students' intentions to join and continue enrollment in honors.
- **Hypothesis 3 (H3):** Students' perceived control affects their intention to join and continue enrollment in honors.
- **Hypothesis 4 (H4):** Students' intentions to continue in honors affect their behaviors in enrollment.
- **Hypothesis 5 (H5):** Students' attitudes directly affect their behaviors in honors enrollment.
- **Hypothesis 6 (H6):** Subjective norms directly affect students' behaviors in honors enrollment.

- **Hypothesis 7 (H7):** Students' perceived control directly affects their behaviors in honors enrollment.

METHODOLOGY

Based on the initial research question—*What factors influence students' decisions to enroll, persist, and graduate with Honors College distinction?*—and based on the seven hypotheses, we developed a survey in the early summer of 2014. The first draft included 40 questions to reflect each component of the TPB shown in Figure 1. This draft was reviewed by a small number of honors students and was modified based on their suggestions. The final draft was a 45-statement questionnaire based on a 1–5 Likert Scale for each question (1: Strongly disagree, 3: Neutral; 5: Strongly agree). Of the 45 questions in the survey, this article examines results that emerge as particularly relevant for our application of the Theory of Planned Behavior.

The statements below are taken from the survey and are clustered around components of the Theory of Planned Behavior Model.

Attitude

- The extra work required by the Honors College will not help my future career.
- I believe that Honors College distinction will benefit me in the future.
- I enjoy the intellectual stimulation that Honors classes bring.
- Honors classes feel like a waste of time.
- I think the extra time and effort needed to graduate with Honors distinction is worth it.

Subjective Norms

- Honors students are not the kind of students I like to hang around with.
- My advisor did not encourage me to participate in the Honors College.
- My close friends have a negative impression of the Honors College.

- When I decided to join Honors, my family's opinion was very important to me.
- When I decided to join Honors, my friends' opinions were very important to me.

Perceived Control

- Honors classes are harder than non-Honors classes.
- I fear that Honors classes will negatively affect my GPA.
- The Honors independent study requirement intimidates me.
- Completing an upper-level division Honors contract intimidates me.
- I understand what is required of me to graduate with Honors distinction.
- I do not have time to finish the Honors requirements.

To better understand some of these questions, readers should know that the Fishback Honors College at South Dakota State University requires 24 credits in honors and a 3.5 overall grade point average to graduate with honors college distinction. Curriculum requirements include the following program components: honors general education; upper-division honors contract(s); interdisciplinary honors colloquia; and an independent study (scholarly/creative/research) project.

The data reported in this study represent students who were eligible for the Fishback Honors College and enrolled at South Dakota State University between the fall of 2010 and the spring of 2014. Any student with a 27 or higher composite ACT score or who was in the top 10% (class rank) of his or her graduating class is eligible and has the option of taking honors courses with no application process required or maximum number of students accepted per year.

The survey was open during September and October of 2014 and was administered through QuestionPro, an online survey program. A link to the survey was sent to students through their campus emails; the total distribution list for this email was approximately 1,275 students, representing all of the sophomore, junior, and senior students who were honors-eligible at the time of their enrollment at SDSU. Of these students, 260 completed the online survey (87% of those who began the survey), a response rate of approximately 20%. The survey took respondents approximately seven minutes to complete. The survey consisted of 45 questions that participants rated

on a 1 to 5 Likert scale (1: strongly disagree; 3: neutral; 5: strongly agree). A coupon for a free SDSU ice cream cone was offered as incentive for survey completion.

RESULTS

Table 1 (see Appendix) provides descriptive statistics for the 260 students who completed the survey. Among all the students who finished the survey, about 67% were female and about 97% were Caucasians. The class breakdown of respondents was senior 32%; junior 33%; sophomore 28%; and other 7% (graduated or 5th+ year).

Table 1 indicates more sophomore male and junior female students while we did not find notable differences in gender among seniors. The data indicated that about 52% of the 260 honors-eligible responding students never began the honors program, 15% discontinued their enrollment, and 33% were currently enrolled. There was no significant gender difference in respondents' enrollment status.

Data in Table 1 also suggest a clear difference in male and female students' fields of studies: about 34% of male respondents and only 9% of female students were from engineering. A higher percentage of female students (47%) were from either pharmacy (32%) or nursing (15%). Notably higher percentages of female students were from arts and sciences compared to male students (20% vs. 14%). There were no noticeable differences in gender distribution for students from agricultural and biological sciences.

As data in Table 2 indicate, students' responses to most of our sixteen questions were significantly different among three sub-groups (never-enrolled, discontinued enrollment, continued enrollment). As expected, currently enrolled students had a more positive attitude about the honors college than students who never enrolled. For example, when asked if graduating with honors distinction would benefit their future, the currently enrolled students had a much higher average score than the never-enrolled students (4.0 vs. 2.06). Similarly, when asked if the extra time and effort needed to graduate with honors distinction are worth it, the currently enrolled students gave a significantly higher score than those who never enrolled (3.90 vs. 2.34).

Students who had discontinued their honors enrollment showed some inconsistency in response to the questions regarding attitude toward honors. For instance, they enjoyed the intellectual stimulation that honors classes offered (3.48) but also gave relatively low scores in response to what honors could do for their future. When asked if the extra work required by the

honors college would not help a student's future career, the discontinued students responded with a 3.26, which was higher than those who never enrolled (3.16). Further, the discontinued students' average score for the question "Honors classes feel like a waste of time" was highest in the three groups (2.86), indicating that these students did not appreciate or perceive the value of continuing their honors enrollment.

Most of the questions related to subjective norms showed similar patterns as those associated with attitudes. Currently enrolled students had significantly higher regard for the honors college than other students. Both discontinued and never-enrolled students gave noticeably higher scores for the question "My advisor did not encourage me to participate in the Honors College."

Table 2 suggests that peer influence played an important role for discontinued students in their decision to enroll in honors. For example, when asked if honors students were not the type of students they liked to associate with and if their close friends had a negative impression of the honors college, the discontinued students reported the highest scores (2.63 and 2.59 respectively) among the three sub-groups of students. On the other hand, Table 2 shows the never-enrolled students had noticeably lower scores for Q21 (1.00) and Q22 (0.88) compared to the other two groups of students, which indicates family and friends of this group did not affect students' decisions to enroll in honors as much as other groups did. Finally, the importance of a students' advisor on the students' initial decisions to enroll in honors was evident. As Table 2 illustrates, when asked if their advisors did not encourage them to participate in the honors college, currently enrolled students responded with the lowest score (2.375) and the never-enrolled students responded with the highest score (3.33).

Most responses to the questions relating to students' perceived control also showed statistically significant differences as indicated by the Kruskal-Wallis test results shown in Table 2. (The Kruskal-Wallis test is used to compare two or more independent samples of equal or different sizes [Daniel]). For example, when asked if honors classes were harder than non-honors classes, if honors classes could possibly negatively affect their GPAs, and if completing an upper-level honors contract intimidated them, the discontinued students gave the highest scores of all three sub-groups (3.12, 2.65, and 3.28). Discontinued students also expressed a perceived time limitation in finishing honors requirements. For example, the average score (3.88) for these students' responses to "I do not have time to finish the honors requirements" was higher than those never enrolled (2.66) and those currently enrolled

(2.34). On the other hand, the never-enrolled students gave relatively low scores for most of the questions in this group, which may be due to their unfamiliarity with the program and their lack of honors experience.

The Theory of Planned Behavior findings and analysis are presented and further discussed in Table 3 of the Appendix. These data are significant because they indicate a "goodness of fit" between the TPB model and the phenomenon in question, i.e., why not honors?

Table 4 in the Appendix summarizes the final model, selected variables for each component of the TPB, and the Maximum Likelihood Estimation of path analysis results (Kline). Most of the estimated coefficients are statistically significant except the paths of Subjective "Norms to Intention" and "Attitude to Behavior." Two selected indicators for attitude have the greatest statistical significance; they suggest that, the more students agree that graduating with honors college distinction will benefit them, the more positive their attitude toward joining and continuing their enrollment. The three selected indicators for Subjective Norms are also statistically significant. The estimated coefficient for Indicator 1 indicates that the less the sample students agreed with the statement that they do not want to associate with honors students, the stronger they feel an obligation to join honors. The coefficients for Indicators 2 and 3 are both positive and significant, suggesting the belief that honors college distinction influences students' subjective norms regarding honors participation and completion. Similarly, the estimated coefficients for the four selected indicators are all positive and statistically significant. The coefficients for these indicators suggest that students did consider the extra time and effort needed to graduate with honors as well as their family's opinion when forming their perceptions about control and limitations in joining and continuing enrollment in honors.

Based on the information provided from Table 4, our seven hypotheses are discussed below and illustrated in Figure 2.

- **Hypothesis 1(H1):** Students' attitudes toward joining and continuing an honors education contribute to their intention to join and continue enrollment in honors.

  The estimated coefficient for the path is 0.907 and is statistically significant. This result confirms our hypothesis that a positive attitude contributes to a higher intention to join or continue honors enrollment.

- **Hypothesis 2 (H2):** The social norms toward graduating with honors college distinction affect students' intentions to join and continue enrollment in honors.

  The estimated coefficient for the path is -0.001 and statistically insignificant. This result rejects the hypothesis that a positive norm contributes to a higher intention to join or continue enrolling in the honors college. Instead, this result suggests that social norms do not affect students' intention to join or continue enrollment in honors.

- **Hypothesis 3 (H3):** Students' perceived control affects their intention to join and continue enrollment in honors.

  The estimated coefficient for the path is -.333 and statistically significant. This result confirms the hypothesis that the less limitation students perceive (for example, the less students are concerned about the difficulty of finishing their independent study projects), the greater intention they report to join or continue their enrollment in honors.

- **Hypothesis 4 (H4):** Students' intentions to continue in honors affect their behaviors in enrollment.

  The estimated coefficient for the path is 0.297 and statistically significant. This result confirms our hypothesis that a positive intention contributes to a higher tendency to enroll in the honors college. However, compared to the impact of perceived limitation (0.975) (see Hypothesis 7 below), the influence of intention on students' behavior is relatively small.

- **Hypothesis 5 (H5):** Students' attitudes directly affect their behaviors in honors enrollment.

  The estimated coefficient for the path is -0.100 and statistically insignificant, suggesting rejection of the hypothesis that a positive attitude contributes to higher enrollment and persistence in honors. This result indicates that the influence of attitude toward honors recruitment and retention is indirect, through intention. In other words, while attitude has an important role in building students' intention to join or continue enrolling in honors, it does not directly contribute to behavior.

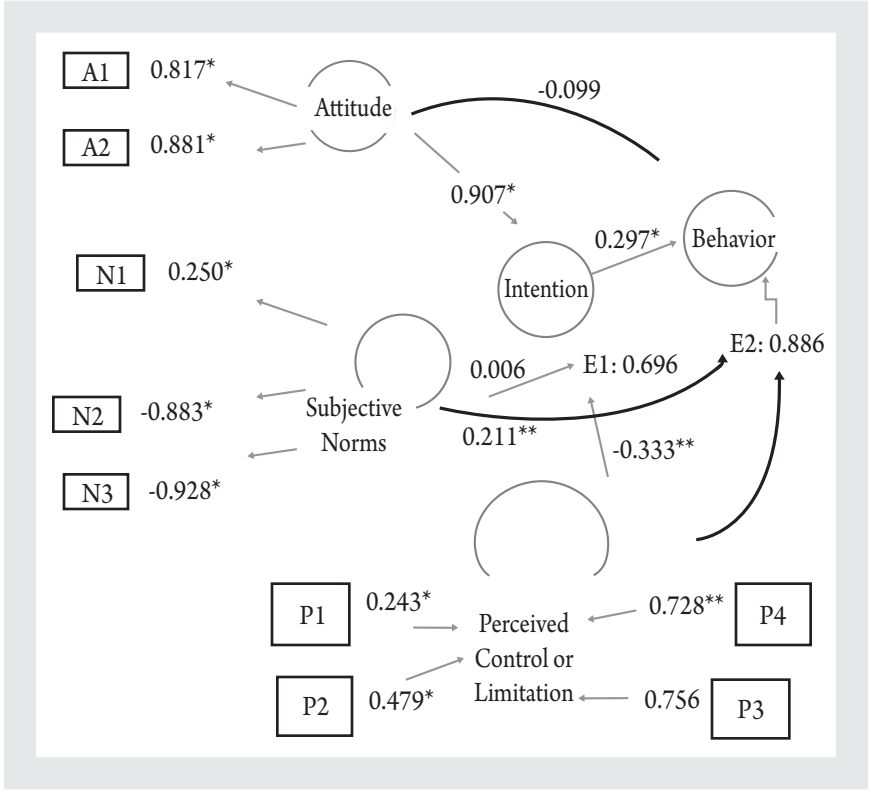
- **Hypothesis 6 (H6):** Subjective norms directly affect students' behaviors in honors enrollment.

The estimated coefficient for the path is -0.211 and statistically significant. This result rejects our hypothesis. Instead of a positive impact, the results here seem to suggest that emphasis on the prestige of joining honors would create a negative effect on students' intention to enroll and persist in honors.

- **Hypothesis 7 (H7):** Students' perceived control directly affects their behaviors in honors enrollment.

  The estimated coefficient for the path is 0.975 and statistically significant. This result confirms the hypothesis that perceived limitation is associated with students' behavior in enrolling and/or persisting in the honors college.

FIGURE 2. THEORY OF PLANNED BEHAVIOR APPLIED TO HONORS STUDENT ENROLLMENT AND PERSISTENCE



*99% Confident Level; **95% Confident Level

SUMMARY, DISCUSSION, AND IMPLICATIONS

This study gathered, analyzed, and compared perspectives of students who were honors-eligible but never began the program, students who began in honors and discontinued their enrollment, and those who were persisting in honors.

Broadly speaking (and not surprisingly), the responses of students persisting in honors reflected the most positive attitudes toward the program although enrolled students were most likely to indicate that they were intimidated by the Honors Independent Study requirement. The honors-eligible students who never enrolled in the program were significantly less likely to perceive the benefits of honors, to enjoy the intellectual stimulation of honors classes, to value the opinions of friends and family members about honors, to understand the program requirements, and to have been encouraged by their advisor to pursue and persist in honors. Students who began the program but discontinued their honors enrollment were least likely to see how the program would benefit their future career, to be intimidated by the honors requirement of an upper-division contract, or to fear that honors courses would have a negative impact their GPAs, and they were the most likely to feel that honors is a waste of time. There were no significant differences among the three groups on perceptions of honors classes as more difficult than non-honors classes or in the likelihood of students' friends having a negative impression of honors. Each of these findings suggests an opportunity for improved program communication and development.

Further, these findings contribute to the literature on retention in honors by delving more deeply into the question of "why not honors?" through TPB's factors of attitude, subjective norms, and perceived limitations in relation to students' intention to enroll, persist, and complete in honors. While previous studies describe demographic characteristics and performance indicators of those most likely to complete in honors, the data presented here help explain the process whereby students decide whether or not to enroll and continue in honors and the factors that influence that process. Understanding the nuances of students' honors decision-making processes can provide insights that guide more effective, responsive program development and outreach.

Findings and implications related to attitudes, subjective norms, and perceived behavioral controls are further discussed below.

Attitude: Having a favorable attitude toward honors was found to be positively associated with students' intention to enroll and persist in honors,

suggesting that honors programs must work to develop a positive attitude toward honors among their students. The data presented here suggest that clearly articulating tangible program benefits for students during their enrollment and after completion is essential to achieving this positive attitude. Then the lived experience of honors students and alumni must support these claims. Honors curricula and experiences should be engaging, relevant, and transformational, not just more work for students.

Subjective Norms: While the TPB model does not demonstrate a significant relationship between subjective norms and students' intentions or behaviors regarding enrollment or persistence in honors, data did show significant differences in these measures among enrolled honors students, those who never enrolled, and those who discontinued their enrollment. The role of the academic advisor emerges as closely associated with students' honors-related subjective norms, suggesting that honors programs should invest in training and dialogue with advisors across their campuses, taking care to be certain that these key influencers of student behavior are well informed and supportive of their students' honors experiences. The role of peers and family members further demonstrates the need for honors programs to communicate clearly and consistently with their students' parents and family members and to establish a positive reputation for the program, its students, and its alumni on campus and beyond.

Perceived Behavioral Control: Data on perceived behavioral control suggest that a portion of students do not enroll or discontinue their enrollment in honors because they see program requirements such as GPA, research, and coursework as prohibitive or lacking value. These findings, which concur with the findings of Savage, Raehler and Fiedor, underscore the importance of a strong support system that might include honors tutoring, advising, and research assistance, all aimed at propelling students through to program completion. Approaches such as the mid-career award, as discussed by Goodstein and Szarek, may help encourage and incentivize students' graduation with honors college distinction.

An alternative interpretation of the differences in responses based on whether students were currently enrolled, never enrolled, or had discontinued their enrollment might be explained via the concept of cognitive dissonance theory, which argues that, when a person knows things that are not consistent, he or she will try to make them more consistent (Festinger). This psychological theory might suggest that students who have committed to joining and persisting in honors express their positive attitudes toward the

program as a way of reducing their potential cognitive dissonance. In other words, their commitment to and participation in the program might lead to their positive attitudes rather than the other way around. Similarly, students who did not enroll or who discontinued their enrollment might report more negative attitudes as a means to reduce cognitive dissonance with their honors enrollment behaviors.

RECOMMENDATIONS FOR PRACTICE AND FURTHER RESEARCH

For the Fishback Honors College at South Dakota State University, this research produces several immediate action steps that may also be worthy of consideration by other honors colleges and programs hoping to improve their students' honors experiences and enhance program completion rates. These steps include the following:

1. Reworking program recruitment and informational resources to more clearly articulate short- and long-term program benefits.
2. Expanding honors training for and support among academic advisors across the university.
3. Enhancing support for current honors students with mid-program recognition, tutoring, advising, and assistance as students prepare for their senior projects.
4. Optimizing all aspects of the honors experience so that the program benefits are being realized.
5. Targeting honors retention efforts specifically to address the concerns of not (yet) enrolled students and those at risk of discontinuing their enrollment.

This study leaves a number of questions unanswered and sparks additional ideas for future research. Exploring qualitative dimensions of the "why not honors?" question via interviews and/or focus groups with each of the sub-groups of this study (never-enrolled, enrolled, discontinued enrollment) would provide deeper insights and understanding of students' perspectives. Detailed program assessment and qualitative and quantitative research among honors alumni could also provide data-driven responses to students' questions and concerns about the perceived and real benefits of the honors experience.

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APPENDIX

Table 1. Descriptive Data

Variables	Full Sample (N=260)	Male Students Only (N=85)	Female Students Only (N=175)	Never began program (N=128)	Discontinued Enrollment (N=43)	Current Honors Students (N=88)
Male (Yes=1)	0.33	1.00	0.00	0.35	0.23	0.34
Sophomore (Yes=1)	0.28	0.34	0.25	0.23	0.16	0.41
Junior (Yes=1)	0.33	0.28	0.36	0.31	0.33	0.36
Senior (Yes=1)	0.32	0.31	0.32	0.38	0.40	0.19
Other (Yes=1)	0.07	0.07	0.07	0.09	0.12	0.03
Never began program	0.52	0.52	0.48	1.00	0.00	0.00
Discontinued Enrollment	0.15	0.12	0.19	0.00	1.00	0.00
Current Honors Students	0.33	0.35	0.33	0.00	0.00	1.00
White	0.97	0.96	0.98	0.98	0.98	0.97
College of Arts & Sciences	0.27	0.14	0.20	0.18	0.19	0.17
College of Agriculture and Biological Sciences	0.18	0.26	0.27	0.23	0.28	0.33
College of Education and Human Sciences	0.09	0.08	0.11	0.08	0.16	0.11
College of Engineering	0.18	0.34	0.09	0.15	0.16	0.22
College of Nursing	0.12	0.05	0.15	0.20	0.09	0.01
College of Pharmacy	0.16	0.13	0.32	0.17	0.12	0.16

Table 2. Students' Survey Question Responses

(Likert-type scale 1= Strongly disagree, 2= Disagree; 3=Neutral; 4= Agree; 5=Strongly Agree)

Question	Full Sample	Never Enrolled	Discontinued	Currently Enrolled	Kruskal-Wallis Test Sπ (Pr > Chi-Square)
Attitude					
The extra work required by the Honors will not help my future career.	2.624	3.159	3.256	2.227	<.0001*
I believe that Honors College distinction will benefit me in the future.	2.707	2.063	2.837	4.000	<.0001*
I enjoy the intellectual stimulation that Honors classes bring.	1.867	1.778	3.488	3.955	<.0001*
Honors classes feel like a waste of time.	2.254	2.288	2.860	1.909	0.001*
I think the extra time and effort needed to graduate with Honors distinction is worth it.	2.898	2.336	2.512	3.897	<.0001*
Subjective Norms					
Honors students are not the kind of students I like to hang around with.	2.737	2.512	2.628	1.955	0.0002*
My advisor did not encourage me to participate in the Honors College.	2.949	3.333	3.000	2.375	<.0001*
My close friends have a negative impression of the Honors College.	2.346	2.183	2.558	2.477	0.2269

When I decided to join Honors, my family's opinion was very important to me.	2.125	1.000	2.930	3.330	<.0001*
When I decided to join Honors, my friends' opinions were very important to me.	1.668	0.881	2.442	2.425	<.0001*
Perceived Control					
Honors classes are harder than non-Honors classes.	3.212	2.717	3.116	3.023	0.6284
I fear that Honors classes will negatively affect my GPA.	3.319	2.839	2.651	2.307	0.0022*
The Honors independent study requirement intimidates me.	2.856	2.635	3.419	3.727	<.0001*
Completing an upper-level division Honors contract intimidates me.	3.140	2.424	3.279	2.920	0.001*
I understand what is required of me to graduate with Honors distinction.	2.809	2.048	3.721	4.182	<.0001*
I do not have time to finish the Honors requirements.	2.757	2.661	3.884	2.341	<.0001*

*99% Confident Level; **95% Confident Level

Theory of Planned Behavior Analysis

For further application of TPB to this study, after compilation of individual responses, 28 unusable observations were deleted and a new data set with 232 was created. The "proc calis" function from SAS/Stat 9.3 was used to perform the confirmatory factor analysis to measure and test the seven hypotheses based on the TPB model shown in Figure 1. As suggested by Table 3, the final model shows a RMSEA value of 0.055; a value of 0.05 or less is considered a strong model fit. Both NNFI and NFI values are around 0.95, suggesting a reasonably strong fit of the model. Other goodness-of-fit indexes (See Table 3) such as standardized root mean square residual (RMR), goodness-of-fit index (GFI), Adjusted GFI (AGFI), and Chi-Square test also indicated the model is adequate for the purpose of this study.

Table 3. Theory of Planned Behavior Goodness-of-Fit Index

Modeling Info	Number of Observations	232
	Number of Variables	11
	Number of Moments	66
	Number of Parameters	30
	Number of Active Constraints	0
	Baseline Model Function Value	5.2235
	Baseline Model Chi-Square	1206.6323
	Baseline Model Chi-Square DF	55
	Pr > Baseline Model Chi-Square	<.0001
Absolute Index	Fit Function	0.2649
	Chi-Square	61.1912
	Chi-Square DF	36
	Pr > Chi-Square	0.0055
	Z-Test of Wilson & Hilferty	2.5405
	Hoelter Critical N	193
	Root Mean Square Residual (RMR)	0.0448
	Standardized RMR (SRMR)	0.0448
	Goodness of Fit Index (GFI)	0.9555
Parsimony Index	Adjusted GFI (AGFI)	0.9185
	Parsimonious GFI	0.6254
	RMSEA Estimate	0.0550
	RMSEA Lower 90% Confidence Limit	0.0298

	RMSEA Upper 90% Confidence Limit	0.0782
	Probability of Close Fit	0.3400
	ECVI Estimate	0.5389
	ECVI Lower 90% Confidence Limit	0.4614
	ECVI Upper 90% Confidence Limit	0.6524
	Akaike Information Criterion	121.1912
	Bozdogan CAIC	254.5933
	Schwarz Bayesian Criterion	224.5933
	McDonald Centrality	0.9472
Incremental Index	Bentler Comparative Fit Index	0.9781
	Bentler-Bonett NFI	0.9493
	Bentler-Bonett Non-normed Index	0.9666
	Bollen Normed Index Rho1	0.9225
	Bollen Non-normed Index Delta2	0.9785
	James et al. Parsimonious NFI	0.6214

Table 4. Correlation Structure Analysis: Maximum Likelihood Estimation (Standardized)

Variable Name	Definition/question content	Estimate	Standard Deviation	T-Value
Attitude				
A1	Honors Distinction will benefit me	0.817	0.029	29.924*
A2	Extra time to graduate with Honors is worthy.	0.881	0.024	36.300*
Subjective Norms				
N 1	Honors students are not the type I want to associate with	-0.250	0.065	-3.863*
N2	Potential to boost my resume/ academic credentials	0.883	0.024	37.103*
N3	The Prestige of being in Honors	0.928	0.022	42.574*
Perceived Limitations				
P1	Honors classes are harder	0.243	0.066	3.686*
P2	Independent studies intimidates me	0.479	0.055	8.691*
P3	I understand the requirement to graduate with Honors	0.756	0.036	21.259*
P4	My family's opinion is important for my decision to join Honors	0.728	0.038	19.441*
Intention				
Attitude	Hypothesis 1: Attitudes toward joining and continuing Honors contribute to the intention to join/continue the enrollment.	0.907	0.119	7.612*
Subjective Norms	Hypothesis 2: The social norms towards obtaining an Honors degree will affect students' intention to join/continue Honors enrollment.	-0.006	0.109	-0.053

Perceived Limitation	Hypothesis 3: Perceived control will affect students' intention to join/continue enroll Honors.	-0.333	0.133	-2.511*
Behavior				
Intention	Hypothesis 4: The intention to continue Honors will affect students' behaviors in enrollment.	0.297	0.084	3.518*
Attitude	Hypothesis 5: Attitude will directly affect students' behaviors in Honors enrollment.	-0.100	0.159	-0.624
Subjective Norms	Hypothesis 6: Subjective norms will directly affect students' behaviors in enrollment.	-0.211	0.103	-2.059**
Perceived Limitation	Hypothesis 7: Perceived control will directly affect students' behaviors in enrollment.	0.975	0.137	7.129*

*99% Confident Level; **95% Confident Level