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Effects of Outdoor Orientation Program Participation on Honors Program Completion

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Improving rates of honors program completion is a goal of virtually all honors directors and deans, and research can help identify and evaluate promising strategies. A number of recent empirical studies have investigated predictors of program completion, including students' admission credentials and honors program features. Though specific indicators of honors program success vary across institutional contexts and even by student cohorts within programs, some patterns have emerged. For instance, high school grade point average (GPA) tends to be a better predictor of honors program success than SAT scores (McKay; Savage et al.; Smith & Vitus Zagurski). Other completion studies focusing on program characteristics have identified positive effects from honors housing (Campbell & Fuqua; Goodstein & Szareck; Kampfe, Chazek, & Falconer), mid-program recognition (Goodstein & Szareck), and other organizational structures and features highlighted in NCHC's Basic Characteristics of a Fully Developed Honors Program (Spurrier).

Practices that build program identity, a sense of belonging, and social capital—such as new student retreats (Walters & Kanak) and first-year seminars

(Vander Zee et al.)—may have a particularly strong impact on students as they start their careers in honors. One such approach that has gained popularity on campuses across North America is the offering of outdoor orientation programs (OOPs) (Bell, Holmes, & Williams). These programs are typically short and intensive (two to five days in duration) and work well for small college groups (e.g., resident assistants, peer mentors, learning communities, and honors groups). OOPs offer high-impact experiences such as hiking and team problem-solving that enable participants to achieve goals together, bond, and create shared meaning (Lien & Goldenberg).

Retention studies on OOPs designed for incoming freshmen, with samples drawn from the general college population, consistently show small but statistically significant increases in first-year retention and college degree completion (e.g., Bell & Chang; Michael et al.). However, no research has specifically investigated the impact of OOP participation on honors program success. The current study considers this variable among other incoming student predictors of honors program persistence and completion.

Each student who is accepted to the Salem State University Honors Program is invited to attend a free, two-day, new honors student retreat held in mid-August on Cape Cod. The retreat is a typical outdoor orientation program that includes ice-breaker activities, high and low ropes challenges, canoeing, swimming, games, and campfire. There are no formal advising or orientation sessions, though advising/orienting does occur in informal settings like the breakfast table or the waterfront at sunset. In addition to new students, attendees include honors program coordinators, two to five honors faculty members, and four to six honors peer leaders, who are members of the honors student council and/or honors students who work in our honors center. The programming goals are to build community, reduce anxiety about college, and enculturate students to the honors program's traditions, expectations, and values. The honors program has been returning to the same camp facility for the past seventeen years, and the cost of the outdoor orientation program, including transportation, is low (less than \$200 per student in 2016). The current study helps to determine the orientation's return on investment with respect to honors program completion.

METHODS

Salem State is a public state university in Massachusetts with a large commuter population, though in recent years the residential population has surpassed 40%. My study tracks outcomes for five cohorts of students who

joined the Salem State honors program from the fall of 2008 through the spring of 2013 ($N = 278$). Data were compiled from three sources: student transcripts, honors admissions records, and attendance rosters for the honors outdoor orientation program. Outcome measures include the number of honors course credits completed with a grade of B or better in the first semester in honors; the total number of honors credits completed with a B or better across all semesters; thesis attempts (whether a student had enrolled in a thesis-support course); degree completion (whether the student graduated within six years of starting and within five years for the 2012–2013 cohort); GPA at degree completion; and honors program completion. The campus is a member of the Commonwealth Honors Program in Massachusetts, which sets minimum criteria for program completion: students must achieve a GPA of 3.2 or higher, complete at least eighteen credits of honors courses with a B or higher, and submit and publicly present an approved honors thesis. During the study period, the honors curriculum for this campus included twenty-one credits of specified honors classes and six credits of honors electives; however, up to six credits could be waived in special circumstances, particularly for later-joiners.

Incoming students were coded by joiner type: freshman-joiners were accepted based on their high school credentials and started the program in their first semester of college, and later-joiners were accepted based on college performance (within forty-two college credits). Later-joiners were either transfer students new to the college or native students who applied to the honors program on the recommendation of a faculty member. Other incoming student characteristics recorded were race, gender, GPA used in admission decision, SAT scores in critical reasoning and math for freshman-joiners, and total prior college credits earned before admission to honors (from prior college, dual enrollment, Advanced Placement, CLEP, International Baccalaureate HL, and SAT test scores). Since the GPA scales for freshman applicants and later-joiners were different, standardized scores (GPA z-scores) were calculated for the analysis. Students' degree majors were classified by school (Arts and Sciences, Business, Education, and Human Services). Students' housing selection for their semester beginning in honors was coded (honors housing, non-honors housing, commuter). Finally, participation in the outdoor orientation program (OOP) was recorded for each student in the sample.

RESULTS

Cohort Profiles

Table 1 provides descriptive data for each of the five cohorts included in the study. As one can see, the profiles are very similar. Notable differences include the size of the entering classes (we intentionally grew the program beginning in 2012 by accepting about 25 more students), math SAT scores (which were over 20 points higher in the first two cohorts), and the percentage of commuters (which decreased steadily over the study period). With respect to longitudinal outcomes, no significant differences between the cohorts were detectable (by chi square analysis) for program and degree completion rates and (by analyses of variance) for graduation GPA. Therefore, cohorts were combined for all subsequent analyses.

Honors Program Completion

In the current sample, the graduation rate for honors students across cohorts was high (89%), and the honors program completion rate was also relatively high (67.6%) compared to other completion rates published in the honors retention literature (Goodstein & Szareck). Ninety students in

TABLE 1. HONORS COHORTS INCLUDED IN ANALYSES

| Academic Year | 2008–09 | 2009–10 | 2010–11 | 2011–12 | 2012–13 |
|--------------------------------------|---------|---------|---------|---------|---------|
| Beginning Honors Students | n = 56 | n = 50 | n = 49 | n = 47 | n = 76 |
| Gender (% female) | 75% | 82% | 82% | 83% | 85% |
| Race (% students of color) | 9% | 9% | 8% | 9% | 12% |
| Residence (% commuters) | 45% | 32% | 33% | 26% | 28% |
| Mean HS GPA | 3.88 | 3.91 | 3.96 | 3.94 | 3.98 |
| Mean SAT CR | 587 | 587 | 592 | 594 | 573 |
| Mean SAT Math | 606 | 597 | 574 | 570 | 567 |
| Mean GPA (Late-joiners) | 3.75 | 3.78 | 3.70 | 3.85 | 3.89 |
| Mean Prior College Credits | 19.00 | 13.72 | 13.44 | 14.49 | 11.56 |
| Retreat Participation Rate | 45% | 44% | 43% | 43% | 36% |
| Degree Completion Rate ¹ | 91% | 92% | 94% | 89% | 83% |
| Mean GPA at Graduation | 3.59 | 3.60 | 3.70 | 3.62 | 3.63 |
| Program Completion Rate ¹ | 60% | 66% | 76% | 70% | 68% |

¹Rates are based on completion within six years except for the 2012–2013 cohort. For this cohort, the review period was only 5 years.

the sample did not complete the honors program, and inspection of their transcripts provides some information about why. Twenty-eight of the program non-completers withdrew from the university (only one as an academic dismissal). Of the 62 program non-completers who did graduate from the university, 19 were removed from the honors program for low academic performance (GPA < 3.2 for two consecutive semesters); 19 were dropped because they stopped taking honors courses (one honors course per semester is expected until program requirements are met); and 24 students in good-standing left the program at the thesis stage (they did not enroll in the required thesis support courses or did not successfully complete a thesis). Thus, about half of the cases of honors program non-completion in this sample can be characterized by a lack of program-specific persistence.

Logistic Regression for Honors Program Completion

A hierarchical logistic regression was performed for honors program completion with incoming student characteristics entered as a block at step 1 (gender, race, joiner type, housing selection, GPA Z score, number of previous college credits earned) and OOP participation at step 2. The initial regression model, which included SAT scores among the other student characteristics at step 1, was not significant. Additionally, an omnibus test of a model with school of major entered at step 3 was not significant (schools were entered as a block of four dummy variables). Therefore, SAT scores and school of major were not entered into the regression analysis presented here.

The full model predicted 93.6% of program completers and 22.2% of non-completers for a total success rate of 70.5%. At step 1 in the regression, significant predictors of program completion were admission GPA Z score (Wald $X^2 = 4.75$, $p < .03$) and joiner type (Wald $X^2 = 4.75$, $p < .03$), and the omnibus test of this model was significant ($X^2 = 20.16$, $p = .001$). At step 2, OOP participation was found to be an additional significant predictor of program completion after controlling for other student characteristics, and the improvement in the model was significant ($X^2 = 5.04$, $p = .02$).

Table 2 provides the coefficients in the equation for the full model, as well as Wald Chi Square statistics and odd ratios for each input variable. As can be seen in the odds ratio column, not attending the OOP retreat reduced a student's odds of honors program completion by 48.4%. The odds of program completion improved by 36.4% for each unit increase in GPA Z-score; these standardized increments translate to .29 points in high school GPA for freshman-joiners and .21 points in college GPA for later-joiners. The table

also shows that later-joiners are 60.2% less likely to complete the program than freshman-joiners. Coefficients for other student variables in the analysis were not significant (gender, race, prior college credit, and housing selection).

Interaction Effects

Interaction effects are not easily ascertained within logistic regression analysis because cross-products are not computable for nominal categories: thus, less robust techniques are employed. (Tests for interactions in SPSS between OOP participation and participant variables—joiner type, housing selection, GPA, gender, and race—were entered at step 2 in the regression; however, none were found significant.) An alternative approach is to run the regression for each level of the nominal variable in question to determine differences in patterns (Spicer). When a regression for program completion was run just for freshman-joiners, GPA Z score, prior college credit, and OOP participation positively predicted program completion, $X^2 = 3.97$, $p = .046$. The emergence of prior college credit as a predictor in the freshman dataset is understandable when viewed in context. Collinearity is present between GPA scores and prior college credit; freshman-joiners who bring in AP test credits also have higher recalculated high school GPAs.

On the other hand, a regression for later-joiners yielded the GPA Z score as the only predictor of program completion, $X^2 = 4.01$, $p = .045$. Other

TABLE 2. LOGISTIC REGRESSION OF OUTDOOR ORIENTATION PROGRAM (OOP) PARTICIPATION AND INCOMING STUDENT CHARACTERISTICS^a ON HONORS PROGRAM COMPLETION

| | B | S.E. | Wald X^2 ($df = 1$) | Sig. | Odds Ratio | Inverse Ratio (OR-1*100) |
|----------------------|-------|------|----------------------------|-------|------------|-----------------------------|
| Gender | -.246 | .351 | .490 | .484 | .782 | |
| Race | .699 | .452 | 2.392 | .122 | 2.012 | |
| Joiner Type | -.960 | .485 | 3.696 | .058 | .398 | -60.2 |
| Prior College Credit | .005 | .013 | .149 | .699 | 1.005 | |
| Admit GPA Z-score | .310 | .142 | 4.749 | .029* | 1.364 | |
| Housing Selection | .097 | .308 | .100 | .752 | 1.102 | |
| OOP Participation | -.662 | .304 | 4.747 | .029* | .516 | -48.4 |
| Constant | 1.283 | .366 | 12.288 | .000 | 3.609 | |

a. Variables entered in the equation in Block 1: gender, race, joiner type; prior college credit, admission GPA, housing selection; in Block 2: OOP participation

* $p < .05$

variables including OOP participation were not significant in the equation; however, the small sample size ($n = 80$ later-joiners) reduces the power of the analysis to detect multiple predictors, particularly those with weak effect sizes. Taken together, the results suggest that OOP participation is related to a greater chance of program completion for freshman-joiners whereas it is unclear whether OOP participation has an impact for later-joiners.

Honors Program Persistence and Degree Success Outcomes

The next set of analyses considers the relationship between OOP participation, joiner type, honors program persistence (number of honors credits completed during the first semester in program and across all semesters) and college success (degree completion and final GPA at graduation).

Joiner Type

Focusing first on joiner type, one-way analysis of variance tests reveal differences in persistence for freshman-joiners and later-joiners (see Table 3). The table shows that later-joiners completed fewer honors credits in their first semester in honors compared to freshman-joiners, $F(1,276) = 66.95$, $p < .001$ and fewer honors credits in total (across all semesters) compared to freshman-joiners, $F(1,276) = 108.2$, $p < .001$. These results are to be expected. Most of our honors courses fulfill general education requirements, and incoming freshmen find it easier to enroll in honors courses that fit their degree needs and schedules. Later-joiners who have completed many general education courses prior to honors admission may be stretched to find

TABLE 3. LONGITUDINAL OUTCOMES BY HONORS JOINER TYPE

| | Freshman- Joiners | Later- Joiners | Test Statistic | Sig. |
|--|----------------------|-------------------|------------------|-------|
| Number of Beginning Students | 198 | 80 | | |
| Mean Number of honors credits in first semester (<i>SD</i>) | 7.78 | 4.95 | $F(1,276)=66.95$ | .000* |
| Mean Number of honors credits completed in total (<i>SD</i>) | 25.77 | 15.91 | $F(1,276)=108.2$ | .000* |
| Thesis Attempt Rate | 79.3% | 61.3% | $X^2(1)=9.67$ | .002* |
| Honors Program Completion Rate | 74.2% | 51.3% | $X^2(1)=13.76$ | .000* |
| Degree Completion Rate | 91.9% | 82.5% | $X^2(1)=5.25$ | .022* |
| Mean GPA at Graduation (<i>SD</i>) | 3.62 (.26) | 3.64 (.30) | $F(1,248)=.175$ | .677 |

* $p < .05$

honors courses that work for the remainder of their degree requirements. Also, students who join in January have fewer enrollment options as many sections of courses fill earlier with continuing students.

Chi Square analyses were performed to compare three different success rates between freshmen and later-joiners (also see Table 3). Later-joiners were less likely to attempt an honors thesis, $X^2(1) = 9.67, p = .002$, less likely to complete the honors program, $X^2(1) = 13.76, p < .001$, and less likely to graduate from Salem State, $X^2(1) = 5.25, p = .022$. Clearly, later-joiners are at a disadvantage with respect to program success.

Outdoor Orientation Participation

To gauge the impact of the retreat unconfounded by joiner type, outcomes were first compared between freshman OOP attendees versus freshman OOP non-attendees. Table 4 provides a summary of results. Freshman OOP participants took more honors credits in their first semester, $F(1,197) = 7.07, p = .008$; completed more honors courses overall, $F(1,197) = 9.80, p = .002$; and had a higher honors program completion rate, $X^2(1) = 3.57, p = .049$ compared to freshmen who didn't attend the OOP. There was an 11.7% difference in honors program completion between the groups.

No significant differences in outcomes were found between later-joiners who attended the retreat ($n = 11$) and those who didn't ($n = 69$); however, the power of these analyses was low given the small sample size.

TABLE 4. LONGITUDINAL OUTCOMES BY OUTDOOR ORIENTATION PROGRAM (OOP) PARTICIPATION: FRESHMAN-JOINERS ONLY ($N = 198$)

| | Attended OOP | Did not attend OOP | Test Statistic | Sig. |
|--|--------------|--------------------|-----------------|-------|
| Number of Freshman-Joiners | 104 | 94 | | |
| Mean Number of honors credits in first semester (<i>SD</i>) | 8.28 (2.8) | 7.23 (2.7) | $F(1,197)=7.07$ | .008* |
| Mean Number of honors credits completed in total (<i>SD</i>) | 27.15(5.8) | 24.25(7.3) | $F(1,197)=9.80$ | .002* |
| Thesis Attempt Rate | 87.5% | 78.7% | $X^2(1)=2.74$ | .098 |
| Honors Program Completion Rate | 79.8% | 68.1% | $X^2(1)=3.57$ | .049* |
| Degree Completion Rate | 94.2% | 89.4% | $X^2(1)=1.58$ | .209 |
| Mean GPA at Graduation (<i>SD</i>) | 3.62 (.26) | 3.63 (.27) | $F(1,181)=.028$ | .866 |

* $p < .05$

DISCUSSION

This study investigated participation in our new honors student retreat, which is an outdoor orientation program (OOP) similar to many offered by other colleges. Consistent with previous research on OOPs, participation in our honors OOP was a predictor of student success, though for honors-specific persistence and completion rather than college completion. In previous retention studies with large samples drawn from the general student population (e.g., Bell & Chang; Michael et al.), the typical finding is a 5–7% improvement in degree completion for freshmen who participate in OOPs. In comparison, this study found no significant difference in degree completion (which is high for honors students regardless of OOP participation) but rather an 11.7% gain in honors program completion for freshman OOP participants. The results regarding honors program persistence provide converging data that OOP participants have a stronger commitment to honors as reflected by the number of honors courses completed and thesis attempt rate. The primary goal of our OOP is honors program success, and the data suggest that it is effective in achieving desired outcomes.

Relationship between OOP Participation and Incoming Student Characteristics

Previous research on factors related to honors program completion have reported that high school GPA, rather than SAT scores, is a predictor of success for freshman-joiners (Savage et al.; McKay; Smith, & Vitus Zagurski), a finding also documented in the current sample. Importantly, OOP participation was found to be a significant indicator of program completion in the regression even after GPA was taken into account.

Two additional variables identified by previous research as predictive of honors program completion—gender (Campbell & Fuqua; McKay) and initial housing selection (Campbell & Fuqua; Goodstein & Szareck)—were not significant factors in this study. The odds of program completion for OOP participants and non-participants did not vary by gender or by housing selection; the OOP was influential for males and females alike and for commuters and residential students alike.

One student characteristic that did emerge as a significant success indicator in this sample was joiner type. The results revealed that students who join honors as first-semester freshmen have a greater chance of program completion compared to later-joiners; they are more likely to attend the honors

OOP; they enroll in more honors courses in their beginning semester; and in the semesters to follow, they are more likely to continue taking honors courses and attempt a thesis. The results, however, were inconclusive about whether later-joiners' chances of program success improve with OOP participation.

Consideration of Selection Confounds

The current examination of incoming student characteristics provides insight into the type of student (high GPA, freshman-joiner) and pre-program behavior (honors OOP attendance) that increase the odds of program completion for our campus. One could argue that these characteristics might be proxy variables for psychological mediators, such as achievement motivation and self-efficacy, which may underlie both the choice to attend the OOP and subsequent persistence behaviors. In other words, with respect to OOP effects there could be a selection confound; the impact might be a consequence not of the honors OOP but rather of the greater motivation and efficaciousness of those incoming honors students who choose to attend the OOP. I argue, however, that OOP participation is a moderating variable that plays a direct role in shaping positive attitudes toward the program and in building social capital.

Quasi-experimental research is needed to tease apart these proxy variable and moderating variable interpretations. An honors thesis by Potorski examined joiner attitudes toward our honors program and university, comparing a small sample of OOP-attendees and non-attendees ($N = 20$ freshman-joiners). Though the study's focus was the effects of cell phone usage on OOP engagement, line-item analysis of survey items showed that OOP-attendees did not differ from non-attendees on pretest measures of college anxiety or affective commitment to the honors program. In regard to changes from pretest to post-test scores, students who attended the OOP, compared to those who did not attend, had an increase in reported emotional attachment to the honors program and had a reduction in anxiety about college coursework. Though based on a very small sample, Potorski's results support the hypothesis that the OOP plays a moderating role in shaping attitudes related to a smoother transition to honors.

A recent study by Brent Bell and colleagues using a randomized experimental design provides stronger evidence that the retention benefits of OOP participation are explained by direct OOP effects rather than confounding selection effects (Bell & Chang). During the study period, more incoming freshmen signed up for their university's OOP than could be accommodated,

and only a subset of interested students participated. Though motivation for the OOP was similar, students randomly chosen to attend the OOP had greater college retention and completion rates than those not selected from the list.

Finally, qualitative research provides evidence for a direct OOP effect on student adjustment. For instance, examination of post-OOP reflections highlights community-building themes among participants such as trust building, commitment, and new friendships (Bell & Holmes; Wolfe & Kay).

Implications

To maximize honors program success from the start, this study suggests that care needs to be taken not only in selecting an incoming honors class with valid admissions criteria but also in shaping the class through high-impact practices that build community, program commitment, and shared expectations. This study reports one such practice, an outdoor orientation program for new honors students that appears to provide a foundation for program persistence and later success. The results do not speak to which elements of the honors OOP are critical for success (e.g., the inclusion of outdoor adventures, team-building challenges, faculty interaction, peer mentor interaction, and/or leisure time with newfound friends). Collection and analysis of post-OOP reflections, as well as program exit-interviews (for completers and non-completers), would certainly be helpful in identifying important elements. More generally, though, the results of the current study are consistent with the honors literature that emphasizes the importance of community-building programming for honors student success. Unlike other strategies such as first-year seminars and residential programming, OOPs are short in duration, are relatively inexpensive, and can be offered to all new students entering an honors program, i.e., commuters or later-joiners. Unfortunately, on our campus participation in the honors OOP is lower than desired: about 40% of recently admitted honors students attend. Enticing our later-joiners to sign up for the OOP is particularly difficult; only 14% participate compared to 54% of freshman-joiners. Stated reasons for non-attendance usually identify conflicts such as work, family obligations, and vacations, but some students cite a lack of interest.

Future study is necessary to examine characteristics of honors orientation programs that are appealing and consequential for a spectrum of new students. Alternative orientation formats might also be as effective as OOPs and should be explored: for instance, the inclusion of City as Text™

programming or a community engagement project. Optimal program duration is also a consideration. Whatever the format, tracking persistence and completion outcomes can help directors to understand short- and long-term impacts of new student programming and to fund programs that work best.

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