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Open Forum Essays

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Institutional Variability in Honors Admissions Standards, Program Support Structures, and Student Characteristics, Persistence, and Program Completion
Andrew J. Cognard-Black, Patricia J. Smith, and April L. Dove
The National Collegiate Honors Council is an association of faculty, students, and others interested in honors education.

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CALL FOR PAPERS

The next issue of *JNCHC* (**deadline: March 1, 2018**) invites research essays on any topic of interest to the honors community.

The issue will also include a Forum focused on the theme “Honors and Social Justice.” We invite essays of roughly 1000-2000 words that consider this theme in a practical and/or theoretical context.

The lead essay for the Forum, which is posted on the NCHC website [http://www.nchchonors.org/uploaded/NCHC_FILES/Pubs/Thinking_Critically,_Acting_Justly.docx](http://www.nchchonors.org/uploaded/NCHC_FILES/Pubs/Thinking_Critically,_Acting_Justly.docx), is by Naomi Yavneh Klos of Loyola University New Orleans. In her essay, “Thinking Critically, Acting Justly,” Yavneh Klos asks readers to consider two questions: “first, how to engage our highest-ability and most motivated students in questions of justice; and second, how honors can be a place of access, equity, and excellence in higher education.” She describes the ways her program has wedded traditional and experiential educational goals with justice education to fulfill the Jesuit honors mission to “embrace diversity; foster reflection and discernment; promote social justice and preferential care for the poor and the vulnerable; and bring ‘intellectual talents into service of the world’s great needs.”’ Rejecting the notion that a student’s qualification for honors can easily be identified by test scores and high school GPA, she suggests ways that admissions policies and curriculum decisions can achieve equitable and inclusive excellence for the public good.

Contributions to the Forum may—but need not—respond to Yavneh Klos’s essay. Prospective authors are also encouraged to consider the issues raised by the NCHC monograph *Occupy Honors Education*, which is forthcoming in early November 2017.

Questions that Forum contributors might consider include: What kinds of honors admissions policies best serve the cause of inclusive excellence? Is the notion of “inclusive excellence” an oxymoron? Can virtue and social justice really be taught at all? How might honors faculty and administrators address the notion that they should teach practical skills and “book learning,” leaving matters of morality and justice to parents and religious groups? Is social justice a partisan issue, part of a left-wing agenda? While diversity in an honors humanities curriculum is common practice, how might the sciences or engineering or computer science achieve a goal of inclusivity?

Forum essays should focus on ideas, concepts, and/or opinions related to “Honors and Social Justice.”

Please send all submissions to Ada Long at adalong@uab.edu.
EDITORIAL POLICY

*Journal of the National Collegiate Honors Council* is a refereed periodical publishing scholarly articles on honors education. The journal uses a double-blind peer review process. Articles may include analyses of trends in teaching methodology, articles on interdisciplinary efforts, discussions of problems common to honors programs and colleges, items on the national higher education agenda, and presentations of emergent issues relevant to honors education. Submissions and inquiries should be directed to Ada Long at adalong@uab.edu.

DEADLINES

March 1 (for spring/summer issue); September 1 (for fall/winter issue)

SUBMISSION GUIDELINES

We accept material by email attachment in Word (not pdf). We do not accept material by fax or hard copy.

The documentation style can be whatever is appropriate to the author’s primary discipline or approach (MLA, APA, etc.), but please avoid footnotes. Internal citation to a list of references (bibliography) is strongly preferred, and the editor will revise all internal citations in accordance with MLA guidelines.

There are no minimum or maximum length requirements; the length should be dictated by the topic and its most effective presentation.

Accepted essays are edited for grammatical and typographical errors and for infelicities of style or presentation. Authors have ample opportunity to review and approve edited manuscripts before publication.

Submissions and inquiries should be directed to Ada Long at adalong@uab.edu or, if necessary, 850.927.3776.
Richard I. Scott—Rick to all his friends in the NCHC—was an honors administrator for three decades at the University of Central Arkansas (UCA) until his retirement this year as Dean and Professor of the Schedler Honors College. While building the honors program and then college at UCA, he was also building honors education worldwide through his service to local, regional, national, and international organizations. Throughout most of this time, he was continuing to contribute to research on hunger and food insecurity in his position as Professor of Sociology.

Rick began his academic career at the University of Nebraska, where he earned his PhD, before joining the sociology department at UCA in 1983. It took him only three years to move into the field of honors. Since then, he has published a half-dozen articles in JNCHC and HIP and has made well over twenty-five presentations at the annual NCHC conferences in addition to papers presented at Southern Regional Honors Council conferences and in the Netherlands. During this time, he has also served as program reviewer and consultant to honors programs and colleges around the country.

In 2010, Rick was elected vice president of the NCHC, subsequently serving as president-elect, president, and past president. As president, Rick inaugurated—among several other major agendas—a national census of
honors programs and colleges, which became the basis for his seminal research studies on the demography of honors, including not just NCHC members but non-members as well, providing and analyzing data that honors administrators can use to evaluate and support their programs or colleges.

Rick has remained dedicated to the NCHC beyond his tenure as an officer not only through his publications but also by serving as a co-chair of the Research Committee and a current member of the Assessment and Evaluation Committee. The value of his service has been recognized on his home campus, where in 2017 he received the inaugural UCA Award for Outstanding Commitment to Study Abroad, and by the NCHC, where he was selected as an NCHC Fellow and the inaugural recipient of the Sam Schuman Award for Excellence in Honors Education.

In appreciation of his past and continuing work in the service of honors, we proudly dedicate this issue of JNCHC to Rick Scott.
EDITOR’S INTRODUCTION
Ada Long
University of Alabama at Birmingham

Since its inception in the year 2000, the Journal of the National Collegiate Honors Council has adopted a theme for each issue, typically in a Forum inviting submissions from members on such topics as “Honors in the Digital Age” or “Honors Culture.” For the current issue, we experimented with an Open Forum aimed at collecting essays on topics that members find significant or controversial in the current climate of honors. We should have anticipated that we would receive fewer submissions than usual since most of us, given an infinity of options, need a prompt to get our thoughts started. The essays we include in this issue’s Open Forum, though few, are provocative in their subject matter and might provide directions for future essays and Forum topics.

The first essay in the Open Forum should spark both interest and concern as it describes a potentially dangerous predicament that any honors administrator or faculty member could encounter in our age of fake news, confrontational politics, and willful misunderstandings. Surely many among us have imagined with dread a 60 Minutes interviewer appearing at our office door with lights, cameras, and questions focused on our rationale for offering a course on the Koran or an admissions policy that is either too exclusive or inclusive. The essay “Teaching an Honors Seminar on #BlackLivesMatter in East Texas” describes just such an experience. The authors—Ervin Malakaj, Jeffrey L. Littlejohn, Kimberly Bell, Patrick J. Lewis, and Julia D. May—describe a course they offered last spring as part of the Difficult Dialogues honors seminar series at Sam Houston State University (SHSU). “The seminar considered the complex historical, economic, and cultural forces that produced the movement along with the various responses to it,” but by mid-semester it became “a target for fake news blogs and websites.” An intellectually rigorous seminar that combined scholarly analysis, critical thinking, and experiential components, the seminar was one that might be proudly offered in any honors curriculum, but soon it became the victim of a smear campaign, first locally and then nationally. Because the honors college at SHSU offers scholarships, headlines appeared like “Need money? Texas college will pay you to feel guilty about your whiteness” and “Disgrace on Campus.” Donors and alumni began calling the president of SHSU to express their shock and withdraw their support. Fortunately for the honors college, the administrators at all levels of SHSU were both savvy and supportive,
arranging news releases and interviews that caused the uproar to die down, but “the toxic discourse created by fake news outlets threatened the very foundation that provides students and faculty the venues in which such matters can be addressed,” venues that are essential to honors education everywhere. Caveat praeceptor!

Craig Kaplowitz of Judson University offers an excellent follow-up essay in “Helping with the ‘How’: A Role for Honors in Civic Education,” beginning with the opening sentence: “The current political moment in the United States puts an exclamation point on years of growing concern for our civic culture.” Kaplowitz argues for the momentous role of honors education when “purely tactical maneuvers substitute for honest debate and substantive process, where self-critique and healthy nuance are rare, and where means and ends are often confused.” In teaching students to apply the basic principles of academic research—accurate use of data and sources, understanding of methodologies, detailed analysis of evidence, honest consideration of conflicting arguments, fair and accurate interpretation of ideas—we can help them become not just better scholars but better citizens: “honors programs and colleges have distinct opportunities to help our students navigate and enhance our public space, thereby providing a vital service for them and for our communities.” The conditions that imperil a seminar on #BlackLivesMatter are precisely the reason we need to prepare our students to take their scholarship into the public arena.

Ken Mulliken of Southern Oregon University (SOU) also links scholarship with citizenship in “A Part Of… or Apart From: A Reflection from South Africa.” In one component of the Democracy Project, “a comprehensive international examination of democracy organized by the SOU Honors College,” a group of students, faculty, and community partners traveled to South Africa. This field trip was part of a series of international travel projects that have included trips to, for instance, India, Austria, and the Czech Republic as well as a series of student-led symposia. In their study of comparative democracies, they have both examined and experienced firsthand the commonality of the human experience and the importance of a sense of belonging: “A successful and sustainable democracy depends on all of us to be informed and take action; it requires seeing others ‘as a part of rather than apart from.’”

Part of recognizing the commonality of human experience is understanding anxiety, crisis, and despair in the people around us, an understanding that is especially important for honors educators as they identify and help students in trouble. In “Mental Health Needs in the Honors Community:
Beyond Good Intentions,” Maureen Kelleher of Northeastern University, Boston, argues that “we are uniquely situated in honors to expand our view beyond the individual to the larger social environment in which our students interact.” Given the interdisciplinarity of honors, its personal connections to students, and its wide range of institutional connections, honors educators have multiple resources not available to others on campus. These resources need to expand by engaging in “the national discourse on mental health.” Kelleher provides separate to-do lists for faculty and staff, students, and the NCHC in advancing this national discourse and addressing “mental health needs and the larger issue of wellbeing on college campuses.”

Kelleher’s essay—the last in the Open Forum—is an apt lead-in to the first of nine research essays in this issue of JNCHC: “Aided by Adderall: Illicit Use of ADHD Medications by College Students” by Amber D. Rolland and Patricia J. Smith of the University of Central Arkansas (UCA). Rolland and Smith investigate “the interplay between mental health issues (e.g., stress, anxiety, and depression), prevalence of and motivation for illicit use of ADHD medications, and enrollment in a program with high academic performance expectations, including honors programs, residential colleges, and scholarships.” Previous research has focused on the correlation between illicit use of ADHD medications and such factors as age, race, gender, athletics, Greek life, general anxiety, academic stress, and parental pressure. Rolland and Smith contribute a new correlation study that focused on 230 students in academically challenging programs at UCA. The authors report that “we anticipated that the prevalence rate of illicit use of ADHD medications would be significantly higher . . . but this expectation was not supported by the results of our study.” Rolland and Smith nevertheless stress the need for further research in this area as well as special attention to programs that address the unique qualities and needs of honors students.

The next research essay—“Honors Student Thriving: A Model of Academic, Psychological, and Social Wellbeing”—addresses the special needs of high-achieving students that Rolland and Smith described. Amanda Cuevas and Jennifer Bloom of Florida Atlantic University and Laurie A. Schreiner and Young Kim of Azusa Pacific University investigate “the pathways that predict a psychological sense of community, campus involvement, spirituality, student-faculty interaction, living on campus, certainty about a major, degree goals, and first choice of institution.” The goal of their study was to “better understand honors students’ levels of academic determination, engaged learning, positive perspective, diverse citizenship, and social connectedness.” The
authors developed a hypothetical model of honors student thriving, which they tested with Structural Equation Modeling (SEM) and Confirmatory Factor Analysis (CFA). One of their findings was that “the overall thriving levels of honors students are not significantly different from traditional students” but that honors students scored significantly lower in social connectedness. Based on their results, the authors identify the most significant pathways for honors student thriving as a psychological sense of community, campus involvement, student-faculty interaction, and living on campus. They conclude with four recommendations for helping honors students thrive.

Helping honors students thrive is also the focus of “Transformative Learning: Lessons from First-Semester Honors Narratives” by Kyler Knapp, Phame Camarena, and Holly Moore of Central Michigan University (CMU). The authors first describe transformational models related to the model they adopt. They then report on a qualitative study of transformational learning as reported by twenty-two first-semester honors freshmen in forty- to sixty-minute interviews. Based on key words and phrases that the freshmen used in describing what they found transformative, the researchers coded and analyzed the programming elements the students described, e.g., the Honors 100 class (especially the Personal Development Project), other honors classes, the honors community, honors culture, and the welcome event. The authors conclude that their results “demonstrate that, beyond strong end-of-course evaluations and persistence to the next semester, intentional programming based on transformative processes and goals can have a substantial impact on student outcomes at a deeper level.”

Also concerned with helping honors students thrive, Jeffrey P. Hause of Creighton University describes “Two Neglected Features of Honors Advising.” Previous research has pointed to some of the key roles that advisors play in creating a welcoming environment, building a relationship of trust with students, and helping them envision and plan their future. Hause contends that practicing attention and discerning a vocation are characteristics of good advising that deserve greater focus, especially in honors advising. By focusing on attention and vocation, he argues, honors advisors can mirror the pedagogies of the honors classroom in facilitating “students’ increased intellectual autonomy.” Drawing on philosophical traditions and practices, Hause parses in detail his concepts of attention and vocation, which—like the honors classroom—help students “avoid preconceptions, prejudices, and unwarranted assumptions” in working through their lives as well as their honors courses, inspiring self-knowledge as well as knowledge about the academic disciplines.
Rates of retention and completion of an honors program are one way of measuring student thriving, and considerable research has been devoted to correlating these rates with characteristics of honors students, program policies, and components of the honors experience. After reviewing this research, Joanna Gonsalves presents the results of a study measuring the impact of outdoor orientation on completion of an honors program in “Effects of Outdoor Orientation Program Participation on Honors Completion.” Her study “tracks outcomes for five cohorts of students who joined the Salem State University Honors Program from the fall of 2008 through the spring of 2013 (N = 278), building cohort profiles and determining program completion rates. The study focused on the correlation between participation in the outdoor orientation at Salem State and graduation rates. In the combined group of cohorts, the graduation rates for honors students was high (89% completed their degrees, and 67.6% completed the honors program), and the study revealed that the outdoor orientation was a predictor for honors program completion although not for completion of a degree. As Gonsalves indicates, the results of her study are “consistent with the honors literature that emphasizes the importance of community-building programming for honors student success.”

In addition to helping honors students thrive, honors administrators share the goal of benefiting non-honors students as well and certainly not harming them. The next research essay, “How the Implementation of Honors Sections Affects the Academic Performance of Non-Honors Students,” offers reassurance in that regard. One argument against honors is that taking the most academically gifted students out of the classroom works to the detriment of other students, but Art L. Spisak, Sam Van Horne, and Keri C. Hornbuckle show that “implementation of honors sections for selected core courses in the University of Iowa (UI) College of Engineering did not adversely affect non-honors engineering students taking those same core courses.” The introduction of engineering honors sections in 2015 allowed for determining “whether the academic outcomes of non-honors students prior to the first offering of honors engineering course sections differed from the academic outcomes of non-honors students after the implementation of the honors program.” In only one of five core courses did they find a statistically significant difference in final grades favorable to honors students, and they found a statistically significant difference in subsequent courses favorable to non-honors students. These results indicated that “the creation of honors sections of the core courses did not hurt the academic performance of the non-honors students.”
Beyond helping honors students thrive without having negative consequences for non-honors students, an important goal of most honors administrators is to improve the quality of education on their home campus and beyond. Addressing the role of honors in the broader context of higher education, Inge Otto and Chris de Kruif of Leiden University “focus on factors that promote or block the diffusion of innovations from Dutch honors programs to other components of the Dutch higher education system.” In their essay “Stimulating the Diffusion of Innovations in Honors Education: Three Factors,” the authors discuss a recent meeting of honors educators in the Netherlands and what these thirty-six experts identified as the three most important conditions for educational innovation in Dutch honors programs: “the need for a safe environment in the classroom,” “the need to establish communities of teachers,” and “the need for institutional support.” The authors discuss previous research on these three topics in relation to the broader context of the field of educational innovations in the Netherlands. Drawing on the honors educators’ comments about each topic as well as providing directions for future research, they conclude: “By considering the three factors that emerged from the expert meeting in light of research about innovation in higher education, organizational psychology, and business management, we were able to contextualize these factors and evaluate their relevance.” Their hope is that this work will influence both innovative education in the Netherlands and honors education elsewhere.

Admissions and enrollment management are areas that have elicited substantial research. “Moving from Forecast to Prediction: How Honors Programs Can Use Easily Accessible Predictive Analytics to Improve Enrollment Management” offers a new approach to enrollment management based not just on forecasting general enrollment using historical data but on predicting the enrollment of any one individual student. The authors—Joseph A. Cazier, Leslie Sargent Jones, Jennifer McGee, Mark Jacobs, Daniel Paprocki, and Rachel A. Sledge of Appalachian State University—suggest that honors administrators can use this predictive method to shape an incoming class that includes, for instance, students from multiple backgrounds. They illustrate the method with a hypothetical student, predicting her likelihood of accepting an honors offer based on her GPA, SAT, intended major, geographical location, gender, race, and socioeconomic status. Using this method, directors can calculate the “[c]umulative probabilities that students will accept enrollment offers based on academic and demographic factors” in order to “optimize their enrollment pools.” The authors write that their method is
“easily accessible to honors directors where a small amount of data collection and basic spreadsheet software allow them to capture most of the benefits without needing the skills of a data scientist.”

The final essay in this issue of JNCHC analyzes data collected in NCHC’s 2014 Admissions, Retention, and Completion Survey (ARC). Three authors—Andrew J. Cognard-Black of St. Mary’s College of Maryland, Patricia J. Smith of the University of Central Arkansas, and April L. Dove of Greenville Technical College—present their analysis in “Institutional Variability in Honors Admissions Standards, Program Support Structures, and Student Characteristics, Persistence, and Program Completion.” The authors focus on identifying “common practices in honors admissions as well as the national trends in standard measures of student persistence like second-year retention, honors program completion, and graduation rates,” and they “examine the assumption that too much variability in honors from school to school prevents us from identifying generally accepted practices and standards.” Among their many findings are that—while two-year colleges have lower retention rates than four-year institutions and have fewer honors-specific support structures like housing, study abroad, and priority registration—there is little statistical variability in these areas among the averages for research/doctoral universities, master’s universities, and baccalaureate colleges. The authors also found “more similarity than difference across programs and colleges in the common measures of admissions, retention, and completion.”
Teaching an Honors Seminar on #BlackLivesMatter in East Texas

Ervin Malakaj, Jeffrey L. Littlejohn, Kimberly Bell, Patrick J. Lewis, and Julia D. May
Sam Houston State University

In spring 2017, Ervin Malakaj (Assistant Professor of German) and Jeffrey L. Littlejohn (Professor of History) led a Difficult Dialogues seminar on #BlackLivesMatter for the Sam Houston State University (SHSU) Honors College. The seminar considered the complex historical, economic, and cultural forces that produced the movement along with the various responses to it. By mid-semester, however, the course had become a target for fake news blogs and websites. Critics of the #BlackLivesMatter movement attempted to portray the course as a propagandistic endeavor intended to force a left-wing ideology upon unwilling students who had reluctantly enrolled in the course in order to receive scholarship money from taxpayer funds. Media responses mischaracterized the institutional parameters governing the course as well as the course aims. Consequently, Malakaj (as the instructor of record), the SHSU Honors College, and university administrators were all contacted by various interest groups angered by the news. Donors threatened to withdraw donations to the university. Students who had been accepted for admission
and had declared that they would matriculate the following fall threatened to withdraw their initial intent to attend the university. At the same time, however, the course instructors and the university received a great deal of support.

We provide here an outline of the institutional parameters within which the course was offered, the pedagogical aims and content of the course, and an examination of the public and university response to the fake news story. Our goal is to offer a case study that will benefit honors colleges considering similar course programs as well as those having dealt with or anticipating negative public responses to sensitive programming.

HONORS INITIATIVES AT SHSU

The SHSU Honors College serves nearly 800 high-achieving and academically talented students, who come from a wide range of socioeconomic backgrounds. Nearly 40% are first-generation college students, and roughly 41% come from generally underrepresented populations. Its curriculum and requirements are standard: in addition to maintaining an institutional GPA of 3.25 and regularly participating in advisement, honors students are required to take eighteen hours of honors-only courses and six hours of upper-level seminars. Students are also required to participate in community service activities and to attend honors scholarly, social, and cultural events. Finally, students have the option to graduate with Highest Honors by completing an honors thesis and are strongly encouraged to participate in the annual Undergraduate Research Symposium. Thus, this program both adheres to the National Collegiate Honors Council’s standards for an honors college and fulfills the SHSU Honors College’s mission “to offer a uniquely broad and intellectually stimulating academic, cultural, and social experience that emphasizes undergraduate research and encourages personal and professional growth” (“Elliott T. Bowers Honors College at Sam Houston State University”).

At the core of the honors college’s mission and underlying all its initiatives is the desire to shape its students into active learners, critical thinkers, and engaged citizens. To these ends, select faculty, known for outstanding instruction and research, teach the honors courses and seminars. These courses privilege inquiry-based active learning over information-based passive learning. The honors college especially promotes critical, independent thinking and active learning in its interdisciplinary seminars. Team-taught by a number of faculty from different fields of study, the seminars target a specific political, cultural, scientific, or literary topic. The interdisciplinary nature of such seminars is, as Edward O. Wilson has explained, the most promising path to scientific
advancement, intellectual adventure, and human awareness. Ultimately, the SHSU Honors College strives to help its students become more articulate in expressing their ideas and opinions, more aware and respectful of the ideas of others, and more informed, involved members of their communities.

In the seminars, the SHSU Honors College can work outside the constraints of traditional departments. For example, all faculty members are required to have a certain number of classroom hours each semester (FTE hours) at SHSU; this makes team-teaching in most departments difficult because it complicates how the FTE hours are divided. Additionally, as most departments must be primarily concerned with covering classes required for their programs rather than providing electives, little room often remains for exploring topics that are not part of a department’s core. Likewise, adding or changing courses is a process that generally must pass through departmental committees for approval and also be approved at the university level if substantial changes or novel classes are proposed. This process can take multiple semesters, sometimes years, to complete. The honors college has the advantage, though, of being able to compensate faculty for their time outside of the normal FTE system and so can facilitate team-taught classes that are virtually impossible outside of the college.

**HONORS SEMINARS AT SHSU**

Faculty in the honors college launched the Difficult Dialogues seminar series in the fall of 2009. Modeled after a Ford Foundation initiative of the same name, the Dialogue seminars address sensitive subjects in a discussion format that is meant to foster open scholarly inquiry and intellectual rigor. Seminars engage students in constructive discussions of controversial content, and instructors encourage students to move beyond their preconceived ideological views to confront competing views and arguments.

Recently, the Pew Research Center has shown that our country is becoming increasingly partisan and entrenched in “red vs. blue” thinking (“Partisanship”). The Dialogues seminar series hopes to help close this gap. Never intending to force a student to change his or her mind on a topic, the seminars aim to explore complex, culture-war-related issues from multiple vantage points, using faculty experts from various disciplines. The courses use a seminar format with small class size, focus on discussion, class research projects, group work, and self-exploration. While the exact workings of any class vary by topic and faculty, participating faculty are encouraged to measure student engagement in innovative ways.
While SHSU honors students must take two seminars to graduate with honors, they select which ones they take (among usually six to eight offered per semester). Students’ motivation for taking one seminar over another is determined by their interest in the topics. The focus of many of the seminars changes from semester to semester; indeed, the course descriptions intentionally allow for flexibility in topic and approach so that classes can focus on issues currently in the news. For example, in the semester immediately following the Blue Bell ice cream recall of 2015 (a pretty big deal here in Texas!), the honors college ran a class titled “The Politics of Food.”

Other former Dialogues seminar topics have included “Science and Religion,” “Environmentalism,” “Race and Racism,” “Medical Ethics,” “Animal Rights,” and “Sex.” These are all complex topics that can be effectively examined in a seminar format with multiple faculty representing various specialties and viewpoints. The Dialogues seminars are clearly named so that the students are aware of the topics being taught. Honors students know that Dialogues seminars tackle difficult, often controversial topics and that their viewpoints will be challenged at some point, regardless of their position on a given topic. Everyone, faculty included, will be a little uncomfortable once in a while. The honors college sees it as its responsibility to offer these courses in view of its innovative institutional capacity to do so. The goals are to make sure students learn to evaluate their positions critically and to facilitate a deeper understanding of those who do not hold their views.

In the fall of 2016, the Black Lives Matter movement was a frequent topic in the mainstream news and on social media. Students were talking about the movement, but no one seemed to have a clear understanding of it. Moreover, few news outlets sufficiently accounted for the complexity of the movement, its aims, its place in the Black cultural history of the United States and beyond, and the structural inequality it protested. In short, it was the perfect topic for a Dialogues seminar. The course focus was timely, complex, interdisciplinary, broadly relevant to several majors, politically divisive, and relevant to the age demographic for most of our students. During a meeting in the early spring of 2016, Malakaj and Patrick Lewis (Associate Dean of the Honors College and Professor of Biological Sciences) decided that Black Lives Matter would be the topic for one Dialogues seminar in the spring 2017 semester.

BACKGROUND AND CONTENT OF BLM SEMINAR

The shooting of Michael Brown, an 18-year-old Black man, by Darren Wilson, a white police officer, in Ferguson, Missouri, on August 9, 2014,
galvanized local, national, and international protests against police brutality. Following Brown’s death, leading Black intellectuals situated the shooting within the broader histories of structural racism in the United States. Angela Y. Davis in *Freedom Is a Constant Struggle: Ferguson, Palestine, and the Foundations of a Movement* (2016) and Ta-Nehisi Coates in *Between the World and Me* (2015), for instance, reanimated old critiques of power systems rooted in prejudice. In the meantime, the founders of the #BlackLivesMatter movement (BLM)—Patrisse Cullors, Opal Tometi, and Alicia Garza—expanded an already substantial international following using various social media outlets during the outrage following Ferguson. According to the official website, BLM materialized in 2013, following the acquittal of George Zimmerman in the shooting of Trayvon Martin, and developed local chapters across North America in order “to build connections between Black people and our allies to fight anti-Black racism, to spark dialogue among Black people, and to facilitate the types of connections necessary to encourage social action and engagement” (“BlackLivesMatter”). BLM drew criticism from many different factions that claimed it did more harm than good, encouraging violence against the police and thereby further dividing people rather than uniting them. Naomi Lim, for instance, reported that Rudy Giuliani, former New York City mayor, called the movement “inherently racist.” The BLM course at SHSU sought to expose the complex social and economic histories behind an increasingly divisive movement.

Littlejohn, Malakaj, and Bernadette Pruitt (Associate Professor of History) conceptualized the course and collaborated with Siham Bouamer (Visiting Assistant Professor of French), Ching-In Chen (Assistant Professor of Poetry), and Jorge Varela (Associate Professor of Psychology), SHSU faculty who taught sessions during the course. In light of the public divide that was fueled by simplistic narratives about BLM’s aims, the instructors sought to help students develop a stronger sense of how to approach contested issues effectively and accurately. More importantly, they devised the course to help connect national and international discussions about systemic injustice to the local experiences of the students. To this end, the focus of the class, which consisted of students from various ethnic, racial, and ideological backgrounds, was to help students develop stronger speaking skills in debate-friendly environments. Students were expected to restate points made in assigned texts, comment on them, relate to them, and express ideas in various formats. For the latter, students performed, during an open mic held in an outdoor classroom on campus, poems of their own composing. Additionally, students
traced their own relationship to the topic, recording themselves addressing a set of questions about BLM before and after the course. In order to motivate students to participate in discussion and feel included, the instructors used weekly writing protocols in which students read different texts and noted their reactions as they thought critically about the readings.

SHSU is located in Huntsville, Texas, 75 miles north of the Houston metro area. Huntsville strongly identifies with its historic ties to General Sam Houston (1793–1863), the first and third President of the Republic of Texas, who retired there. The university received its name from him; monuments related to him and his family ornament the campus and town; and a museum bears his name: The Sam Houston Memorial Museum. The first day of the BLM course began with a trip to this museum, which, according to its website, maintains a “dedication to preserving the memory of Sam Houston (1793–1863) and his times” (“Dedicated to the Life and Times of General Sam Houston”). Once in the museum, students were asked to examine the exhibits with a focus on how they depicted the Black experience. Only one such example existed in the institution, which claims to give contemporary audiences access to the Huntsville and Walker County experiences during the age of Sam Houston. After a 30-minute tour of the museum, students met in small groups to examine a series of documents: census records from 1850 and 1860, which revealed that the majority of the population in the county was Black, and property records from 1860, which showed that Black bodies were the most valued commodity in the county. The lesson here was to illustrate the violent historic erasure of the Black experience in the town and, by extension, the county, an erasure that prevails to this day and shapes the lives of people of color.

This trip to The Sam Houston Memorial Museum positioned students early on to think critically about the historic position of the Black experience in relation to official public history. The trip also ushered students into the first unit of the course, titled “Historical Overview: Racism & Reactions to It,” in which students thought about the history of racial violence and injustice, considering the origins of Black history and vital discourses. To this end, students listened to lectures on ethnic and cultural differences in Black experiences throughout the vast continent of Africa. They also read the works of Carter G. Woodson, Barbara Jeanne Fields, and Annette Gordon-Reed in order to understand race as a construct before exploring the way race became a tool in the shaping of U.S. cultural, political, and economic history. Keeanga-Yamahtta Taylor’s groundbreaking 2016 study, From #Blacklivesmatter to
Black Liberation, accompanied readings from W.E.B. Du Bois's The Souls of Black Folk, connecting older Black intellectual traditions to American history after WWII in order to arrive at what Taylor calls the “culture of racism,” a thesis positing that “race and racism have not been exceptions” in the long history of progress in the aftermath of WWII; instead, according to Du Bois, “they have been the glue that holds the United States together” (Taylor 29).

Taylor’s text framed the sessions in the second unit as well, which was titled “Policing, Incarceration & Resistance.” It covered the history of policing in the U.S. in relation to the Black experience. In this unit, students watched and discussed Ava DuVernay’s 2016 documentary film 13th, which outlines the extensive ties of private corporations to the prison industrial complex. The unit coincided with Black History Month at SHSU, and students attended a number of events to help them connect course discussions to lectures in public settings, e.g., a week of lectures and film screenings on the Black Panther Party.

In the third unit, titled “Politics of Personal Expression,” students explored the political-personal writings of Ta-Nehisi Coates and Angela Y. Davis, paying particular attention to the national effects of racial injustice as it relates to broader questions of systemic inequality generated by post-industrial capitalism. Following these readings, students participated in poetry workshops with Ching-In Chen, in which they read poems about racialized systemic injustice by Ashaki M. Jackson from her 2016 chapbook Surveillance and in which, in writing their own poems, they were positioned to think creatively about injustice. Here, in line with the focus throughout the course, students could appreciate the complexity of seemingly simple matters related to questions of injustice. Considering how personal expression in the form of poetry can serve as resistance to oppressive movements helped students gain a stronger understanding of the impact of BLM on a broad public group, which was increasingly galvanized to speak truth to power.

The final course unit, “Mainstream/Social Media & Resistance Movements,” considered the impact of organizing strategies during the Civil Rights Movement, which depended on print and TV media, in comparison to the use of social media in strengthening and empowering individuals internationally to challenge injustice. Moreover, students considered how the public history of housing movements, captured in Chad Friedrichs’s 2011 documentary The Pruitt-Igoe Myth, has been shaped by people in power. Combined with Davis’s work, this film helped students discuss the conditions leading to uprisings and protests. Finally, students toured several historic African-American
neighborhoods in Huntsville that had been seized and effectively erased by local white institutions and leaders during the 1970s and 1980s. Two exceptional students in the course developed posters on these neighborhoods for the 10th Annual Undergraduate Research Symposium held at SHSU and hosted by the honors college.

THE FAKE NEWS STORY

At 10:46 pm on Sunday, March 5, 2017, Rob Shimshock, an education reporter for The Daily Caller—a news and opinion website founded by Tucker Carlson of Fox News and Neil Patel, former advisor to former Vice President Dick Cheney—wrote a blog post titled “College Honors Program Pays Students to Take ‘White Privilege’ and BLM Courses.” The blog post immediately focused on the BLM Dialogues seminar then being taught and cited a future course planned for fall 2017. The headline of the story, along with bits and pieces of factual information from the SHSU Honors College website, implied that SHSU provided $2,800 in scholarship funds and special academic advantages to students if they took these specific classes. The quotations the author used from the website were accurate, but Shimshock arranged them, along with his own interpretation, to produce information that was misleading. The following morning, The Blasting News picked up the story and posted a commentary with the headline “Need money? Texas college will pay you to feel guilty about your whiteness” (Bressi). The commentary led off with “In an attempt to promote ‘community engagement,’ Sam Houston State University in Huntsville, Texas, has developed an honors program that awards students a scholarship worth up to $2,800—along with several other perks—if they enroll in ‘white privilege’ and Black Lives Matter courses” (Bressi). The article went on to mock other courses offered through the honors college as well as give personal information about the professor teaching the seminars, such as his name, race, list of publications, and other courses he had taught.

The university obviously did not develop the honors college to award students thousands of dollars to take the two courses mentioned in the commentary. The college was established in 1987—long before social media, hashtags, the Black Lives Matter movement, or the current connotation of Whiteness in society were formed. While students admitted to the honors college receive scholarships, they earn the award based on outstanding academic achievement, not because they are being paid to take certain courses.

The website InfoWars picked up the commentary as well, using its own subheading: “College lavishes incentives in exchange for Marxist
indoctrination.” Shortly thereafter, an anchor for the nationally broadcast *Fox & Friends* morning TV news program showed a video of a Black Lives Matter protest in Minnesota in 2015 and stated that SHSU was “offering a scholarship to take classes on Black Lives Matter and white privilege.” The anchor went on to say that special academic advantages were granted to the students, once again implying that students were being rewarded if they took the two courses. *Fox & Friends* went on to post the news segment on its website, along with Rob Shimshock’s story from *The Daily Caller*, with the headline “Disgrace on Campus” over Shimshock’s main headline of “College Honors Program Pays Students to Take ‘White Privilege’ and BLM Courses” (Shimshock, *Fox News*).

Not one time had any of these “news” organizations reached out to the university to confirm information about the honors college, its courses, its academic requirements for students to enroll and remain in the program, or the reasons its students might have access to computer equipment or labs. Following the media debacle, the SHSU President’s Office, Alumni Relations Office, Provost’s Office, and main switchboard began receiving calls, with the majority coming from SHSU alumni to express their disappointment with the courses or to vent their anger. Almost all who contacted SHSU indicated that they wanted to terminate any connection they had with the university. Some emails lamented the fact that the university would permit such a course to be offered: “To hear that Berkeley, Yale, Harvard, and other liberal colleges were offering this course would not have surprised me. I am extremely disappointed that this course is not only being offered, but also providing funding to those who decided to take the course.” Other emails explicitly proclaimed that the university is not offering students a chance to succeed and instead offers a course that “is divisive and will cause more problems on your campus than you even understand.” More direct critics called for the university to be defunded by the state: “My prayer is that you lose taxpayer funding NOW. No indoctrination of our students. I rebuke you in Jesus’ name!”

It soon became clear that those contacting the university were especially upset about two points: that SHSU was offering seminars on the Black Lives Matter movement and understanding Whiteness and that the university was paying students to take the courses. SHSU’s issue management/crisis communication team determined that the news cycle and social media have a very short shelf life and contemplated ignoring the situation. However, unlike previous issues that the university has navigated, wherein people who had absolutely no affiliation with the university were the ones expressing outrage
on social media, this one had touched SHSU alumni. The university’s leaders felt that an attempt should be made to correct the misinformation. The first step involved posting a university statement on the provost’s website, denouncing false accusations about its courses. Provost Richard Eglsaer’s March 2017 message first and foremost sought to take a firm position to communicate that “we, at Sam Houston State University, are here to educate not indoctrinate” (“A Message”). Once this statement was in place, subsequent emails and callers were referred to the statement. Either because of the statement or because people moved on to other issues, calls began to slow down. In addition, the team used the prepared statement to answer, either by phone or by return email, specific questions that came up in subsequent correspondences. This method proved to be successful as some alumni responded positively. One email read, “Thank you so much for your response. It does answer my question, but it also made me think of more. Would you mind sending other topics that are offered as part of this program?”

While SHSU has chosen in the past simply to state the facts and clarify misconceptions in response to news stories, this time the issue management team felt that it was appropriate to appeal to the source of the misinformation for a correction. Emails were sent to Shimshock, The Blasting News, Fox & Friends, Fox Network, and other outlets that wrote on the matter; these communications pointed out the inaccuracies of their stories and, using the university’s prepared statement, gave them correct information. University administrators took a firm stance, stating that “your broadcast sent the erroneous message that our university pays students to take controversial courses on topics that you know are unpopular with your viewers. Even worse, your slant was to sensationalize the reporting with video footage of a demonstration that took place in Minnesota almost two years ago. We expect you to set the record straight and correct the misinformation you gave to your audiences” (March 2017). Though no retraction nor apology came from these organizations, their news cycle moved on.

What should be noted is that two area television stations, the local newspaper, and the university’s student-run newspaper took an interest not only in the media reports but also in the university’s response to them. SHSU has enjoyed a positive relationship with the area media for many years, a relationship that is based on cooperation and respect through experience in a variety of situations. The newspapers used information from their interviews with the university provost to write their articles, and the television stations sent reporters to campus to interview the university’s public information officer,
the dean of the honors college, and several students enrolled in the honors college, all of whom expressed dismay that the story had been erroneously reported. Moreover, Forbes Online posted an opinion piece by SHSU history professor Brian Domitrovic titled “Earth To Daily Caller: There Are Conservatives On Campus,” decrying the presumption that SHSU is a liberal haven indoctrinating innocent students, an accusation made in the initial Daily Caller post and repeated by others.

Within two days, the furor had died down. Except for a few incidental inquiries asking what the social media comments had been about—the university’s social media page was replete with comments fueled by the negative press the course received—no one later contacted the university to express outrage or demand an explanation.

**LESSONS LEARNED**

What remains important is that this fake news media debacle created a serious institutional issue for the instructors teaching the #BlackLivesMatter course, the honors college, and the university. While the instructors and the honors college anticipate—even invite—critique for the sake of deep conversation and understanding of pressing issues of our times, the toxic discourse created by fake news outlets threatened the very foundation that provides students and faculty the venues in which such matters can be addressed. Central to the resolution was the extensive collaboration among instructors, the honors college, the university public relations office, and university leaders. At a time when faculty and programs are increasingly “under fire not for statements they actually made, but for views ascribed to them by others,” as scholar Peter Schmidt states, a trusting relationship among university constituents is central to protect academic freedom and deep reflection. The SHSU Honors College takes pride in its rigorous Dialogues seminars and other programming designed to produce model citizens and sees the Dialogues seminar on BLM as vital to the success of this mission.

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Helping with the “How”:
A Role for Honors in Civic Education

Craig Kaplowitz
Judson University

The current political moment in the United States puts an exclamation point on years of growing concern for our civic culture. We have a president who neither understands nor cares for the processes and norms of the American system of government, a Congress that seems almost indifferent to the real issues of governing for the public good, a news cycle driven by flippant tweets, and a toxic social media environment. There is little current recognition that, in our system, how we debate the alternatives and arrive at policies is as important for our long-term civic enterprise as the resulting policies themselves. As far apart as we are about the desired ends, we are at risk of coming together in ignoring the importance of the proper means. For many of our students, this is the first presidential election, administration, and Congress in their awareness and will set their expectations about process and norms for public life. Our students have precious few examples of a healthy public environment and few models for how to partake in one, not simply in what they should accomplish but in how they should go about trying. In this context, honors programs and colleges have distinct opportunities
to help our students navigate and enhance our public space, thereby providing a vital service for them and for our communities.

One challenge for students is a lack of familiarity with the institutions and conventions of public life. We hear in the news about student failures to appreciate the processes and the virtues on which our system of self-government is built, such as students purportedly favoring repeal of the First Amendment. But media attention favors the flamboyant at the expense of the mundane, and careful studies of college-age attitudes about such matters are mixed. Subtler observations closer to home are what have me thinking about how students view and respond to current issues and public engagement. One fairly typical example occurs when I assign competing op-eds on an issue of current controversy. Under certain circumstances, students consistently interpret the opinion of an author exactly wrong. That is, they believe she opposes the very position that the op-ed is written to support. What are the circumstances? Within the op-ed, the author critiques an argument or person associated with her own position on the issue. Students reason that if the author supported this position, surely she would not criticize arguments in favor of it. To cite just one recent example, my students were convinced that Ross Douthat, a traditionalist Catholic columnist for the *New York Times*, favored same-sex marriage because he opened a column by dismissing three weak but often-used arguments defending traditional marriage. That the rest of his column argued the opposite eluded them. Whether a conservative author admitting some arguments for traditional views of marriage are weak, a liberal criticizing abuses of the social safety net, or one of countless other examples, students struggle to comprehend political self-critique.

While tempted to view these misattributions as the result of sloppy reading, I have seen such misunderstandings far more often about current, especially hot-button events than about academic issues that seem less connected to today’s sociopolitical controversies. I suspect the phenomenon results from assumptions about our political environment, where purely tactical maneuvers substitute for honest debate and substantive process, where self-critique and healthy nuance are rare, and where means and ends are often confused. Students who internalize these tendencies while becoming active in the public sphere are at greater risk of missing the weak spots in their own or others’ arguments and of failing to recognize and substantively address valid points from others. Among options to help students navigate this tendency, opportunities lie in the careful work that students do in their academic endeavors.
I have little difficulty getting my history majors to value the careful use of sources, attention to both sides of a historical argument, and thoughtful engagement with other arguments. They understand that method matters and that acknowledging and accounting for solid counterarguments result in a better research outcome. Likewise, my colleagues in biology have little difficulty getting students to recognize the importance of proper method in the lab; they know that a shortcut to get a certain result risks the entire project and undermines its purpose. Humility and appropriate process are vital components of effective research: always checking how my conclusions may not be correct, how my sources may be misleading me, how I may be cooking the books, whether my results are replicable, how I may need to adjust my conclusions to fit the evidence (and not the other way around), what good points I may glean from those with different conclusions, and how I might adapt my approach to fit them in. Students get this. But too often, when our materials converge more directly with current events and political issues, this care, humility, and process-focus fade into the background. Of course, political activism and civic engagement are not the same as a lab or studio or seminar, but attention to process and a concern for good methods to shape results can only enhance our political environment.

The problem is not, as perhaps it once was, a lack of student interest or opportunity to act in the public sphere. Despite hand-wringing over the future of our civic culture and complaints about millennials, we do see some encouraging trends. Students increasingly arrive at college expecting to become involved, if they are not already, in service and activism both on and off campus, and college student voting rates have gone up in recent years. For their part, colleges and universities have been ramping up programs to help students become engaged both in community service and in civic responsibilities like voting and campaigning for issues. Whether organizing such opportunities as service learning within an existing curriculum, centering them in an office of student life, or using some other approach, institutions of higher education are returning to their often stated but too often neglected role of developing students to be engaged citizens as well as effective leaders, skilled workers, and life-long learners. Studies of student engagement, tolerance, and political influence are documenting the success of these developments.

The data are encouraging but do not tell us everything. They tend to reveal the rates at which students are active in the civic process: how often they vote, work on a campaign, advocate on an issue, participate in an event,
or serve in a community organization. This information is helpful and important, and getting students to do something (anything?) in the civic sphere is a worthy goal, but it should not be the only goal. In addition to increasing how often students engage, we should also work to increase how well they engage by asking key questions: Are they sensitive to the process while pursuing desired outcomes? Do they seek the appropriate means or focus only on ends? Are they willing to learn while pursuing their vision of the common good, whether adjusting their objective or their approach to getting there? On this score the results are less clear. Given student interest and a renewed commitment among colleges and universities, we are at an opportune moment to raise the quality of student civic engagement by helping students apply the good processes they know from their disciplines to a civic environment sorely in need. In this project, honors programs and colleges are particularly well suited to help achieve the goal.

As colleges and universities encourage civic participation among students, we need to be intentional about helping students connect the processes they learn for good, sophisticated work in the classroom or lab to the ways they think about and act in civic space. Majors teach students the methods to follow in a discipline to increase their knowledge. Internships, experiential learning, and civic engagement programs encourage students to apply that knowledge to public contexts. We should also encourage students to apply what they have learned about good processes and principles to public contexts. They may do so intuitively, but we should push them to do so deliberately.

Honors programs and colleges have some particular advantages for this sort of project. While service learning is becoming more common, many colleges still have no institution-wide program, if the option is available at all. The honors emphasis on experiential and applied learning can create opportunities for students to apply the processes as well as the outcomes of their research to public issues. Capstones and senior projects are a fruitful place for this sort of work, but academic departments can be reluctant or unable to give students freedom to deviate from discipline- or profession-specific final products. The interdisciplinary nature of honors allows for the cross-pollination that can encourage application of disciplinary methods as well as knowledge to a problem in the civic sphere. Honors capstone projects can free students from the more specific focus of a major department and allow for experimentation, risk-taking, and non-traditional definitions of success. For campuses where civic engagement and service are driven through offices
of student life, an honors program or college—as one of the few places where academic affairs and student life intersect—can contribute academic grist to such efforts. In any of these cases, honors can implement a prototype that may be adopted by other departments and offices or by the campus as a whole once its efficacy has been demonstrated.

Many honors programs and colleges emphasize civic service and implement a variety of programs to this end, as recent issues of the *JNCHC* attest. At my institution the honors component for the senior capstone requires students to apply knowledge and skills from their major to an issue of the public good while consulting with a specific community organization or civic office to address its particular needs regarding that issue. The contributions they make generally stem from knowledge gained through their majors, which is a worthy and valuable result, but we could do more to encourage students to draw on their disciplinary methods and habits of mind, not just their knowledge, to enhance their involvement in the community and to view proper process as vital to a good outcome. For example, history majors recognize that they are in a conversation with their sources and each other. They seek ways to synthesize the arguments of two or more scholars in an interpretation of the past rather than simply declare one right and one wrong. I need to help them apply these same tendencies to an issue they feel strongly about in the public realm. When they go from the history seminar to the honors capstone and work on a public issue of immediate interest to them, I need to help them see if their preference for an outcome has led them into shortcuts in thinking through their position, dismissing their critics as wrong, or ignoring contrary evidence. They should see the value, or at least understand the coherence, of an opposing view and address it to build toward a more constructive result.

Encouraging our honors students in this way can have ripple effects. When they leave us to become leaders and influencers in their fields and communities, they will be more responsible, deliberate, and process-oriented in their political activity. They will more easily recognize process-ignoring tendencies when they encounter them in others and will have language to argue for a better way. They will be able to avoid the worst examples within their own position while dismantling the worst examples within the positions of others. Perhaps they can even join with some of their political opponents in affirming common standards of evidence for public debate. Toward these ends, honors programs and colleges can provide a vital service in helping students allow their high-quality academic work to inform their approach to
political issues. They may feel that too much is at stake in current politics to apply the careful, methodical approaches they use in the research for their majors. Precisely because so much is at stake, however, they must. We can help them.

**SUGGESTED READING**


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ckaplowitz@judsonu.edu.
“All of humankind originated in Africa,” our tour guide, Richard Randall, announced as he greeted us in Johannesburg, “so I want to welcome you home.” This reminder of our shared ancestry, as distant as it may be, set the theme for this year’s Democracy Project field experience in South Africa.

In the summer of 2017, fourteen students from Southern Oregon University (SOU) traveled to South Africa as part of SOU’s Democracy Project. Involving students, faculty members, and community partners, the Democracy Project (DP) is a comprehensive international examination of democracy organized by the SOU Honors College. To solve shared challenges of the twenty-first century, emerging student leaders need a solid understanding of conflict resolution and of how democracy is understood, implemented, and promoted around the world. The DP is consistent with the mission and vision statements of Southern Oregon University and the honors college as it supports “intellectual growth” and “responsible global citizenship.”

Some of the issues studied through the DP include the historical evolution of democracy, sovereignty, freedom, nationalism, citizenship, immigration,
patriotism, imperialism, colonialism, liberty, security, justice, and equality. DP participants examine criteria in the Democracy Index and articles in the United Nations’ Universal Declaration of Human Rights. They compare and contrast the United States Constitution and Bill of Rights with national constitutions around the world, keeping in mind questions such as “what is the proper role of government?” and “in a democracy, what is the appropriate balance between individual liberties and human rights?”

Our educational experience in South Africa is the fourth field trip of the DP. Expanding from the first field trip to Washington, D.C., previous international DP field trips have studied India, Switzerland, Austria, Germany, and the Czech Republic. Through conversations with journalists, professors, university students, and business leaders, these field trips have been organized so that students will better understand how democracy is structured and practiced on various jurisdictional levels.

Building on these international experiences, the DP has hosted annual symposiums at SOU that are facilitated and moderated by SOU Honors College Scholars. These symposia explore the threats and challenges to democracy in the twenty-first century and the degree to which the promotion of sustainable democracy is valuable and viable. The first symposium, “Crisis in Kashmir: Negotiating a Democratic Solution,” was hosted by the SOU Honors College in April 2016, and attended by 125 local high school students. SOU Honors College Scholars hosted the second symposium, “Seeking Refuge: The Syrian Crisis,” in April 2017, and over 350 high school students participated. The third symposium is planned for April 2018 and will focus on issues relating to African democracy.

Mark Twain is credited with two quotations that relate to the learning objectives of the DP. The first is “Travel is fatal to prejudice, bigotry, and narrow-mindedness.” This observation is directly applicable to democracy and conflict resolution today. At different times in history and in various locations around the world, people’s customs, language, cuisine, and clothing have contrasted sharply, but what makes history and international travel relevant to our lives today is the underlying commonality of humanity. As our South African tour guide noted, our ancestors all originated in Africa, if you trace our linguistic and genetic origins back far enough. No matter when one is born or where one is raised, we share several fundamental concerns. These concerns include love, marriage, family, employment, health, availability of food and fresh water, clothing, shelter, and freedom of personal expression. International travel reveals that we are more similar than we are different.
The second relevant quotation attributed to Mark Twain is “History doesn’t repeat itself, but it rhymes,” which is a recurring theme in our DP research. In Germany, the societal divisions evident during the period of Nazi rule in the 1930s and 1940s have been replaced by recent concerns about massive immigration from war-torn Syria. In India and Pakistan, religious disagreements that divide Hindus and Muslims date back to independence in 1947. In South Africa, over forty years of racial segregation under the system of apartheid have given way in recent decades to a period of “truth and reconciliation,” which has had mixed social results. Twain was right: history does not repeat itself, but the fundamental core of human relationships is remarkably similar regardless of time or location. Our DP research indicates that the health of a nation’s democracy and the likelihood of its long-term sustainability rest on one ultimate and essential question: do people see themselves more as “a part of, or apart from” others in society? This question seems simplistic on the surface, but the answer affects all subsequent decisions on both an individual and collective basis.

At some level, domestic politics and international relations will always be arenas of competing interests, but if we focus on goals in the Democracy Index and articles in the United Nations’ Universal Declaration of Human Rights, we can collectively accomplish more together than we can individually. To accomplish these goals, we each need to answer a wide range of questions both individually and collectively: What issues and problems are most urgent in our community, region, state, and nation? What bothers you and makes you frustrated or angry? What motivates you to take action? Is it homelessness, mental illness, child neglect, drugs, diseases, sex trafficking, water rights, or animal abuse? How about pollution, loss of biodiversity, global warming, income inequality, legal injustice, infant mortality, high school graduation rates, inadequate health care, high crime, lack of access to education, bigotry and prejudice, or racism? A multitude of issues cry out to be solved and require our thought, attention, and action. Ignorance of these issues or belief that one’s actions will not matter is an insufficient excuse for apathy. A successful and sustainable democracy depends on all of us to be informed and take action; it requires seeing others “as a part of rather than apart from.” Awareness, engagement, and collaborative action are the goals for the Democracy Project at Southern Oregon University.

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In addressing mental health needs in honors communities, I first need to explain that I am not a mental health practitioner; I am a sociologist. The types of issues that interest me are structural: what can we do to set up supportive environments that help all our students. We need to respond appropriately to individuals, but we also need also to look at the larger system (Bertram et al.; JED Foundation, “A Guide”; Atkins & Frazier).

For honors educators, the challenges that students face in their daily lives are an ongoing concern. We are all aware of the rising rates of undergraduate mental health issues (Locke et al.; Cook; Ross et al.; Towbes & Cohen). Our students regularly articulate “fears and anxieties and doubts about their abilities” (Tough) and tell us about barriers that impede their progress, but careful listening reveals concerns that range beyond individual performance anxieties. Students also address a “widespread presence of intrapersonal difficulties, social isolation, and stress” (Mitchell et al. 23). We need, therefore, to look beyond those students we perceive to be at risk and address the larger campus context (Kelleher).
Our regular efforts to respond to students in crisis may include connecting students to campus health care services, exploring disability service options, and reaching out for help (if appropriate) to residential life services, academic advisors, and individual faculty (Novotney). We also sometimes contact families. Although we are limited, sometimes severely so, by inadequate institutional resources, we are uniquely situated in honors to expand our view beyond the individual to the larger social environment in which our students interact. Honors educators use multiple resources during any given day and have thus become adept at seeing how our programs fit into both our campus communities and the larger national discourse on both honors and, more generally, higher education.

A critical advantage that honors has in these conversations is its interdisciplinarity. The fundamental principles of honors education make it responsive to difficult conversations. Also, our faculty are clearly linked to the day-to-day lives of students in important and meaningful ways and have helped us understand the changing profile of the classroom experience. As a result, we are aware that our students are sometimes reluctant to take advantage of resources; they fear being stigmatized by peers, professors, and university officials (Cook; Rosenthal & Wilson; Eisenberg et al.). Some faculty also experience their own “fear and uncertainty” or reluctance “to have students with mental disorders in their classrooms” (Caughill 2–3), creating significant barriers (O’Connor-Merrigan). Discussing these issues within our community helps to both neutralize stigma and normalize mental health concerns (Mitchell et al.; Sontag-Padilla et al.).

Many of our students now seem comfortable using the language of mental health concerns as they articulate stress and anxiety about not just academics but time-management, sleep, family relations, and future plans (New; Berman et al.; Wu; Britz & Papas). A step that many of us as honors administrators now need to take is becoming familiar with the national discourse on mental health. We each know how responses are framed by our program and on our campus, and we are aware that the strengths and weaknesses of these responses can be far-ranging, but fewer of us are aware of larger discussions. We need to know more.

Specific federal legislation has moved mental health discussions forward. Section 504 of the Rehabilitation Act laid out the rights of individuals with disabilities (U.S. Department of Justice), and the 1990 Americans with Disabilities Act guaranteed these rights (Collins & Mowbray, “Understanding”). We can access important resources like the National Alliance
on Mental Illness report College Students Speak: A Survey Report on Mental Health, which provides a good overview for grounding honors educators in the national discussion of campus mental health. Other resources include the JED Foundation and top campus mental health services such as the one at the University of Michigan. There also is a next step.

As interdisciplinary units, our less-siloed vision opens the door for us to frame responses to individual, programmatic, and campus wellbeing (Miller & Amar; Chaszar; Klein & Newell). When we speak about interdisciplinarity, we are usually talking about curriculum development, but interdisciplinarity also offers a lens to imagine strategies for using our multi-faceted resources. Here are some initial ideas and suggestions to move campus conversations forward:

**For Faculty and Staff:**

- Offer training opportunities for faculty and have informal conversations with them. Introduce them to campus resources such as health care and disability resources. Make them aware of federal legislation. Talk about the implications of an inclusive classroom culture (Arcus). Raise a discussion of trigger warnings (Brown). Heighten their awareness of national discussions and reaffirm your partnership with them in responding to the rapidly changing/challenging classroom climate (Coleman & Kotinek; Kadison and DiGeronimo; Nolan et al.). Understand what they can offer the conversation as individuals and as a collective.

- Think deeply about curriculum development. Assess the possibilities of developing a course focusing on mental health issues and/or integrating mental health conversations within current curriculum offerings. Infusing these conversations into the curriculum supports faculty and students in making connections between “academic content and real world college experience, and the implications for mental health” (Mitchell 22).

- Invite staff from various services on campus to formal and informal honors events where they can interact with our students, faculty, and staff. Such opportunities help familiarize or reacquaint all of us with our campus resources, including health and disability resources, and other units such as residential life and student groups. Also, many campuses currently have student mental health advocacy groups.
Consider what steps are taken by these groups to support students and where there is common ground or overlap.

- Understand the ins and outs of FERPA when dealing with individual crisis (Hlavac & Easterly).

- Be aware of Title IX and Title II mandates and their potential to affect your program (Title IX; Collins and Mowbray, “Higher Education”).

**For Students:**

- Use the opportunity offered by first-year seminars, which can incorporate discussions of issues related to campus stress such as test-taking and time-management (Cook; Shatkin & Diamond). Look at Coleman and Kotinek’s NCHC monograph *Setting the Table for Diversity*. Consider other types of conversations we should be having in these courses.

- Initiate or continue to build a faculty-student community by devising programming that allows for informal interaction between students and faculty. Such events humanize both groups and help build informal networks that are important resources for students at critical junctures.

- Have conversations with students, and listen to them. Figure out how they are responding to not only wellness and safety issues but gender, diversity, and inclusiveness concerns. Read their learning portfolios to discover what they are telling us about their lives; these reflective exchanges can open the door to what is on their minds (Zubizarreta).

- Know whom to call in an emergency and where to take students when they present you or your staff with behavior or comments that threaten their wellbeing.

- Access the 2016 NAMI/JED student guide *Starting the Conversation* (National Alliance on Mental Illness/JED Foundation).

**For NCHC**

- Develop a resource guide on mental health. Include in the guide examples of “best practices” for a variety of campus profiles including community colleges. Include resource materials discussing issues such as gender, race, and age as well as international and undocumented
students. Specialized profiles help us respond more effectively to our community’s needs.

- Pull together a set of syllabi from already existing honors courses on mental health for distribution to NCHC members, and describe ways to integrate a conversation on mental health into courses we are already offering.

Many of us are responding to student mental health issues with best intentions but not always with the most informed strategies. We need a core of “best practices” that honors programs and colleges can follow. We need to commit to principles supporting developmental appropriateness, an integrated knowledge base (think interdisciplinarity), and an understanding of sociocultural context. We need to push for an integrated response to individual and structural troubles through linking together our college community, supporting and or developing emergency and non-emergency protocols, and networking with other campuses. We need to make visible connections between the courses we offer, the lived lives of our students, and the implications for mental health. We need to become proactive in reaching out to our students and to engage in discussions of development, monitoring, and/or expansion of services to address mental health needs and the larger issue of wellbeing on college campuses.

The problems on your campus or mine lie beyond any individual student in crisis. By moving toward a student-centered campus, we can make our honors communities stronger and more resilient. The NCHC community can play a larger role in this process.

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Aided by Adderall: 
Illicit Use of ADHD Medications by 
College Students

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INTRODUCTION

“\[I\] don’t know that many kids that have done coke, none that have tried crack, and only a few that have dropped acid. I can’t even count all of the ones who’ve taken Adderall” (Stice). This statement made in an interview by a freshman art history major at the University of Maryland, College Park, in 2007 effectively highlights a still growing problem among undergraduate students in the United States: the nonmedical use of stimulant medications prescribed to treat Attention Deficit Hyperactivity Disorder (ADHD) as “study aids.” Even as early as 2004, up to twenty percent of college students had used Adderall or Ritalin, both drugs used to treat ADHD, according to a report released by the National Center on Addiction and Substance Abuse (Stice). This phenomenon of abusing prescription stimulant medications is
well-documented not only in research literature but also in numerous news articles.

A 2009 NPR article documented the increasingly prevalent use of ADHD medications by college students to help them study and included commentary from Martha J. Farah, director at the Center for Cognitive Neuroscience at the University of Pennsylvania, who described the behavior as “worrisome” due to the drugs’ serious side effects and the potential for addiction (Trudeau). In 2012 The New York Times published just a small fraction of the submissions they received after inviting students to share personal accounts of taking prescription medications for academic purposes, and almost all of them were written by high school students or recent graduates (Schwartz). In 2016, CBS News published a story titled “Adderall misuse rising among young adults,” making it clear that this problem has not lessened in the decade or so that has passed since publication of the 2007 article describing the growing trend of “young people taking prescription drug abuse to college” (Kraft; Stice).

Overwhelmingly the most common reasons given for the nonmedical use of ADHD medications involve academic studies as students use them to stay up all night to study (Arria, Caldeira et al. 162; Benson et al. 62; Garnier-Dykstra et al. 230; Cook 32; Herman et al. 15; Teter, McCabe, et al. 1501; Webb, Valasek, and North 30). This behavior has proved to be more prevalent among students attending colleges with the most competitive admission standards and academic environments (McCabe et al. 100; Webb, Valasek, and North 28). Additionally, certain dimensions of perfectionism are positively correlated with illicit use of prescription stimulants (Stoeber and Hotham 173). ADHD medication misuse has also been found to peak during periods of high academic stress, and students who engage in this behavior are significantly more likely to report higher levels of stress, test anxiety, and psychological distress as well as have more extensive histories of mental health disorders, including anxiety and depression (DeSantis, Webb, and Noar 317; Hanson et al. e62; Moore et al. 990; Burgard et al. 247; Bidwal et al. 538; Dussault and Weyantd 92; Thomas 10; Teter, Falone, et al. 294; Ford and Schroeder 32; Sattler and Wiegel 221; Sattler, Mehlkop, et al. 14; Messer 16).

Students participating in honors programs and colleges are often held to higher academic standards due to rigorous admission criteria and the GPA requirements for retention, which can lead to increased levels of stress (“Basic Characteristics of a Fully Developed Honors Program”). The high standards might suggest that honors students and high-achieving students are at greater
risk for abusing ADHD medications. However, research on the abuse of ADHD medications among honors and high-achieving students is lacking. Our study thus investigates the interplay between mental health issues (e.g., stress, anxiety, and depression), prevalence of and motivation for illicit use of ADHD medications, and enrollment in a program with high academic performance expectations, including honors programs, residential colleges, and scholarships.

**Attention Deficit Hyperactivity Disorder (ADHD) Diagnosis and Common Treatments**

According to the National Institute of Mental Health, ADHD is a brain disorder that interferes with functioning or development and is characterized by ongoing inattention and/or hyperactivity-impulsivity, which typically persists throughout one’s lifetime (“Attention Deficit Hyperactivity Disorder”; Stauf and Greydanus 71). ADHD diagnoses are rapidly rising in the U.S., where 11% of children aged 4 to 17 years old have been diagnosed (Blank 36). Stimulant medications used to treat ADHD include dextroamphetamine (Adderall and Adderall XR, Dexedrine, ProCentra, Zenzedi), methylphenidate (Concerta, Daytrana, Metadate CD and Metadate ER, Methylin and Methylin ER, Ritalin, Ritalin SR, Ritalin LA, Quillivant XR), lisdexamfetamine (Vyvanse), dexamfetamine (Focalin and Focalin XR), and amphetamine sulfate (Evekeo) (“Drug Treatments for ADHD”). The most easily recognizable are likely Adderall and Ritalin, which work to stimulate neurotransmitter activity in the central nervous system that results in increased alertness, reduced fatigue, and improved attention (“Adderall Prescribing Information”; “Ritalin and Ritalin-SR Prescribing Information”). These effects of ADHD prescription medications are the reason for their abuse by students who are not diagnosed with ADHD because the drugs enable them to focus better and stay up all night to study and complete assignments.

**Health Risks Associated with Misuse of ADHD Medications**

Aside from ethical considerations regarding whether the use of ADHD medications for academic purposes should be considered cheating, there are numerous health-related reasons to be concerned about students abusing these drugs. Due to their high potential for abuse, both methylphenidates (Ritalin) and dextroamphetamine-amphetamines (Adderall) are classified as schedule II substances in the Controlled Substances Act (Chen et al. e1).
Structurally, Adderall is extremely similar to methamphetamine, more commonly known simply as meth or crystal meth, differing only by a methyl group (one carbon atom bonded to three hydrogen atoms). A study published in 2012 revealed that intranasal self-administered methamphetamine and dextroamphetamine produced a similar dose-related profile of acute effects in humans, with the primary difference being that meth produced more prominent effects on some measures of mood and cardiovascular activity (Kirkpatrick et al. 786). Additionally, many cardiovascular risks and unpleasant side effects are associated with ADHD medications, including abdominal pain, appetite loss, weight loss, insomnia, headache, increased heart rate, nervousness, and anxiety (“Adderall Prescribing Information”; “Ritalin and Ritalin-SR Prescribing Information”). Cases of acute myocardial infarctions induced by mixing Adderall with alcohol have been reported (Sharma et al. 84). Even more worrisome is the consistent finding that students who abuse these medications know very little about the drugs or the potential health risks involved (DeSantis, Webb, and Noar 317; Owoeye 6).

Prevalence Rates of Illicit Use of ADHD Prescription Stimulant Medications

Much research has been conducted to assess the prevalence of illicit use of ADHD prescription medications by American undergraduate students. These studies rely primarily on self-reported data collected from survey respondents and occasionally on in-person interviews structured to varying degrees. In 2001 McCabe et al. administered a survey to a representative sample of 10,904 randomly selected American undergraduate students from 119 four-year universities to assess the nonmedical use of Ritalin, Dexedrine, and Adderall. Their analysis indicated the overall mean rates of lifetime, past-year, and past-month illicit use were 6.9%, 4.1%, and 2.1%, respectively (McCabe et al. 98), which equates to approximately 752 students having illicitly used these ADHD medications at least once in their lives. However, between individual universities, past-year rates varied as widely as 0% to 25%, thus demonstrating the importance of conducting this kind of study at a greater number of colleges to more reliably determine the prevalence of illicit use (McCabe et al. 99).

Researchers from the Center for Substance Abuse Research (CESAR) at the University of Maryland College Park published their findings from two separate surveys in 2008 showing that out of a sample of 1,208 first-year college students without ADHD diagnoses, 18.0% reported illicit use (Arria,
Caldeira, et al. 156). Benson et al. conducted a comprehensive review and meta-analysis of the existing literature and found the average lifetime rate for prescription stimulants to be 17% (Benson, Flory, and Humphreys 60). A systematic literature review of 21 studies representing 113,104 individuals found past-year illicit use rates ranging from 5% to 35% in college students (Wilens et al. 21). These findings speak to considerable variation in the prevalence of illicit use between individual institutions despite the general overall trend of increasing rates.

However, this variation is not that surprising and should in fact be expected. The characteristics of both the academic environment and the students differ widely between individual universities, and students are motivated to illicitly use ADHD prescription medications for different reasons. Thus, the drastic variation in the prevalence of this behavior, reported in the literature, makes sense. In general, though, research shows an overall increase in prevalence rates over time.

**Demographic Factors**

The scope of the existing literature has not been limited solely to the assessment of the overall prevalence of this behavior among college students as one large group; interest has also focused on identifying correlates of illicit use of ADHD medications. Specifically, studies have been done on prevalence rates for illicit use for subgroups defined by age, gender, and race. Research has consistently shown that males report illicit use at significantly higher rates than females (Hall et al. 169). A survey conducted among 1,216 undergraduate students at James Madison University, for instance, revealed significantly higher rates of illicit use among males than females (40.5% vs. 23.0%, \( p = 0.000 \)) (Dwyer 12). McCabe et al. found higher rates of use among males and also significantly higher instances of Caucasians reporting illicit use compared to other races. Their analysis revealed past-year and past-month rates for whites to be 4.9% and 2.5%, respectively. By comparison, only 1.6% of African-Americans and 1.3% of Asians reported illicitly using prescription stimulants during the past year, and past-month prevalence rates were 0.4% for African-Americans and 0.7% for Asians (McCabe et al. 99). Numerous other studies have supported these findings. Teter et al. reported that Caucasians were more than three times as likely as African-Americans and more than twice as likely as Asians to report illicit use within the past year (Teter, McCabe, et al. 1501).
**Extracurricular Involvement**

The relationship between illicit use and extracurricular involvement, such as membership in a Greek organization and participation on a varsity athletic team, has also been well-documented in the literature. In 2015, Gallucci and Martin administered a survey to 200 varsity athletes and 482 non-athletes and found varsity athletes to be significantly less likely to illicitly use prescription stimulant medications, with past-year rates of 16.6% for non-athletes compared to just 7.5% for athletes (47). However, the rate among these athletes was still within the range of illicit use found in the general college population.

An earlier survey conducted by Gallucci et al. in 2014 found that illicit users were more likely to be affiliated with a Greek organization (Gallucci et al. 186). This result has been found in numerous research projects at many different universities, including the 2005 study representing 10,904 undergraduate students from 119 colleges, the 2015 comprehensive review and meta-analysis, and the 2008 literature review of 21 studies representing 113,104 individuals (McCabe et al. 99; Benson et al. 62; Wilens et al. 21). Among college students in southern California, fraternity and sorority members were found to be more likely to report illicit use of Ritalin and/or Adderall in both the past year and past month (Shillington et al. 999). Dussault and Weyandt administered a survey to 1,033 undergraduate students from five universities in different regions of the U.S. specifically to determine differences in illicit use of prescription stimulants between fraternity/sorority members and those unaffiliated with Greek life, and they found higher rates reported by Greek students (91). More recently, involvement in Greek life was even found to negate the protective influence of religiosity on illicit use of prescription medications (Snipes et al. 93).

**Misuse by College Students with ADHD**

Research has shown a strong correlation between higher rates of reported illicit use of prescription stimulant medications and current prescription holders or those who have been diagnosed with ADHD. Illicit use by those with a prescription for ADHD stimulants may consist either of overusing one’s own medication or using another’s prescription for nonmedical purposes. In a study with a sample of 1,253 college students, 45 of whom had been diagnosed with ADHD, 26.7% (N = 12) of the students with ADHD reported having overused their own medication before, and 15.6% (N = 7) also admitted using another person’s medication for nonmedical purposes at
least once. In comparison, the overall rate of illicit use for the entire sample was just 18.0% (Arria, Caldeira, et al. 156).

**Mental Health**

Research has also shown positive correlations between illicit use of ADHD medications and a history of mental health disorders and issues. Illicit users have been shown to experience higher levels of perceived stress and extensive histories of both anxiety disorder and depression. In the study involving 589 students studying to be doctors, physician assistants, and pharmacists, where medical and physician assistant students were more likely to report illicit use, these same students were also more likely to report a history of anxiety disorder (12.1% vs. 18.6% vs. 5.9%, respectively) and major depressive order (9.4% vs. 8.1% vs. 3.3%, respectively) (Bidwal et al. 535). Additionally, the Perceived Stress Scale (PSS) scores for all three groups of students, which ranged from 21.9 to 23.3, were approximately twice as high as those reported for the general adult population (Bidwal et al. 535).

Dussault and Weyandt found that illicit use of prescription stimulants was associated with higher ratings of anxiety, stress, internal impulsivity, and internal restlessness (92). After controlling for differences with respect to both gender and Greek organization membership, they found a connection between those scoring higher on the Self-Reported Prescription Stimulant Use subscale and those scoring higher on the Stress and Anxiety subscales (Dussault and Weyandt 93). Thomas also reported that students who indicated illicit use also self-reported higher symptoms of anxiety, depression, and impulsivity (30).

Analysis of survey responses from 3,639 undergraduate students revealed that approximately 50% of those who admitted to being frequent illicit users also reported having a depressed mood. After controlling for other variables, the researchers found that the adjusted odds of depressed mood were more than two times greater for students who engaged in frequent monthly illicit use (Teter, Falone, et al. 294). The findings reported by Ford and Schroeder implicate general strain theory. The college students in their study who indicated feeling academic strain also reported higher levels of depression, and those who reported higher levels of depression were found to be more likely to admit to using prescription stimulants illicitly (Ford and Schroeder 26). Overall, the research clearly shows that students who illicitly use ADHD medications experience higher levels of mental health issues, stress, and anxiety. In contrast to the connections between different subgroups divided by
demographic factors and extracurricular involvement, these findings provide clearer insight into the reasoning behind these students’ choice to illicitly use ADHD medications.

**Peaks of Illicit Use During Periods of High Academic Stress**

Multiple studies using different methods have all arrived at the conclusion that students who illicitly use ADHD medications do so primarily in periods of high academic stress. DeSantis, Webb, and Noar reported in 2008 that the 34% of students who admitted to illicit use did so mainly during the week of final exams or during other periods throughout the academic year when they were experiencing high levels of academic stress. In administering surveys and conducting in-depth interviews, they also discovered that the first instance of illicit use for most students (N = 1,811) almost always occurred when students were feeling the most stressed and anxious because of school (DeSantis, Webb, and Noar 319).

Another research team conducted an innovative study in which they analyzed a grand total of 213,633 tweets containing the term “Adderall” from 132,099 unique accounts over a period of roughly six months from November 2011 to May 2012. During this time, the number of “Adderall” tweets peaked during typical college final exam schedules in both December and May (Hanson et al. e62). The researchers also found that “Adderall” tweets peaked during the middle of the academic week and declined on the weekends. The authors of the study tracked many other terms and information in these tweets and found that 60.7% (N = 2,335) of the 3,698 Twitter users with GPS data enabled included at least one student-related term, such as “homework,” “class,” “final,” “test”, “exam,” and “study.” One tweet read, “Adderall stockpile for finals” (Hanson et al. e62).

Perhaps the most compelling findings were reported by a team of researchers from both the chemistry and psychology departments at the University of Puget Sound located in Tacoma, Washington. Using the traditional method of analyzing self-reported data, they administered a survey to undergraduate students during the first week of the semester (N = 676), during midterms (N = 468), and during the week of final exams (N = 400) (Moore et al. 988). They also conducted a concurrent study of the wastewater from four residence halls on campus, with a known population of 476 undergraduate students, performing a quantitative chemical analysis for amphetamine and ritalinic acid, the metabolites of Adderall and Ritalin, respectively. There were significant differences in the self-reported data collected during the first
week and midterms, with the prevalence rate of illicit use of Adderall increasing from 0.8% to 3.2% of respondents and from 0.3% to 3.4% with respect to Ritalin (Moore et al. 989). These findings were corroborated by the chemical sample data, which contained significant differences in the levels of Adderall and Ritalin metabolites between the first week and midterms and between the first week and finals week. The researchers achieved these results by performing solid phase extraction and liquid chromatography-tandem mass spectrometry (LC-MS/MS) analysis, and samples were normalized with creatinine, a byproduct of muscle metabolism excreted by the kidneys, to account for variations in dilution and to provide an estimate of uncertainty (Burgard et al. 244). Amphetamine was found to be present at 74±51 nanograms (ng) per milligram (mg) of creatinine during the first week, and this level increased to 240±55 at midterms and to 110±50 during finals week. The presence of ritalinic acid increased more consistently from 36±63 to 170±67 to 310±63 (Moore et al. 990). Burgard repeated this experiment the following semester, this time increasing the number of sampling periods to include the week following midterms and the last week of class before final exams. The presence of both ADHD medication metabolites decreased between the week of midterms and the following week, from 120±51 to 110±50 and from 100±62 to 54±62 (all reported as ng of metabolite per mg of creatinine) for amphetamine and ritalinic acid, respectively. A particularly drastic increase was seen in the level of amphetamine between the last week of class and the week of final exams from 190±50 to 570±51 ng/mg creatinine (Burgard et al. 247). Thus, the trend of increased use of ADHD medications during periods of high academic stress has been clearly shown in the literature.

**Competitive College Admission Standards and Highly Competitive Academic Environments**

Further cementing the connection between illicit use of prescription stimulant medications and stress that results from the pressure to succeed academically is the finding from McCabe et al.’s nationally representative study that significantly higher rates of illicit use were found at colleges with more competitive admission standards (100). Robitaille and Collin assert that use of prescription stimulant medications among young adults “cannot be separated from the developing performance ethic” prevalent throughout our society that is becoming normative (357). Webb et al. also suggest that the cognitive enhancement effects afforded by these drugs lead to their “illicit use in more demanding academic environments” (28). In an article for the
South Atlantic Quarterly, Bousquet states that students illicitly use ADHD medications primarily to “keep up with . . . performance pressure in a high-stakes culture” and that these drugs are best suited to “the disciplinary and spectacular matrix of their lives, framed by performance culture and high-stakes assessment” (633).

The Ivy League college campuses have the most notoriously demanding academic environments. These prestigious universities consistently accept well below 10% of applicants each year, and the culture of competition does not end upon admission (P. Jacobs). The attempted suicide rate among students at Harvard is almost twice the national rate, and 35% of Princeton students reported that they developed mental health issues after coming to campus (Hatoff; Mazarakis). A New York Times reporter interviewed two dozen Columbia students in 2005 and reflected that “the prevailing ethos is that Adderall, the drug of choice these days, is a legitimate and even hip way to get through the rigors of a hectic academic and social life” (A. Jacobs). Several students commented on the influence of the cutthroat environment at Columbia on the illicit use of ADHD medications on campus. “The culture here actually encourages people to use stimulants,” one student claimed. Another student, who said he used to believe that studying harder was all that was necessary to do better in school before coming to Columbia, said, “The environment here is incredibly competitive. If you don’t take [stimulants], you’ll be at a disadvantage to everyone else” (A. Jacobs).

Primary Motivations for Illicit Use

The anecdotal evidence provided by these statements from Ivy League students combined with research establishing peak illicit use of prescription stimulants during periods of high academic stress points to academics as the primary motivator for students to engage in such behavior. The majority of illicit users in multiple studies have reported that they did not use stimulants prior to beginning college, that they do not take these drugs while classes are not in session, and that “improved attention/concentration” and “improved study habits” are their primary motivations for taking them (Arria, Caldeira, et al. 166; Benson et al. 62; Garnier-Dykstra et al.; Teter, McCabe, et al. 1501; Thomas 31; Webb et al. 30).

Kadison and DiGeronimo assert that the stress and anxiety resulting from the immense pressure to perform well and to complete assignments on time may lead college students to abuse drugs like Adderall in order to cope (116).
Students obsessed with getting high grades are more motivated to seek out means of accomplishing this goal without having to admit their failures, and drugs like Adderall are the perfect fit for students who are driven to maintain their identity as high-achieving (Kadison and DiGeronimo 116). Connecting this characterization of some high-achieving students as reluctant to seek help and determined to perform well is the evidence that students who illicitly use ADHD medications may, in fact, be self-medicating.

**Perfectionism and Parental Pressures**

High-achieving students with high standards and “self-critical perceptions of inadequacy in meeting performance expectations” have also been shown to experience higher levels of perceived stress, depression, and hopelessness, as revealed by a study involving two successive cohorts of honors students (Rice et al. 524). These kinds of students often are perfectionists, and various dimensions of perfectionism have been positively correlated with favoring the use of cognitive enhancers like ADHD medications. Stoeber and Hotham (2016) found that students with external pressures for perfectionism were more likely to see using these kinds of drugs as acceptable. In contrast, students who applied internal pressures for perfectionism were less likely to find use of “smart drugs” acceptable (Stoeber and Hotham 173).

**Academic Factors**

Given the findings associating increased illicit use with high levels of academic stress, competitive environments, high admission standards, and perfectionism, prevalent illicit use might also be expected with membership in a program that has high requirements for admission and continued enrollment, such as an honors program, and with award of an academic scholarship. The results of the study conducted at James Madison University, however, in which many students in the sample were enrolled in the honors program, failed to show that illicit use was more common among honors students as anticipated (Dwyer 14).

Bousquet suggests that “continuous assessment of scholarship recipients leads to usage” (633), a claim that is supported anecdotally by a University of Maryland, College Park, student who, when interviewed, stated, “I don’t know what I would do without [Adderall]. There’s no way I could have kept my scholarship if I didn’t use it” (Stice). These statements, the primary motivations reported by illicit users, and the known effects of increasing cognition,
memory, and concentration are paradoxically in direct contrast with the consistent, established correlation of illicit use with lower GPA.

**Social Perceptions of and Justifications for Illicit Use**

Research has also been conducted to assess the perception of the behavior and reasoning given for justification by illicit users. DeSantis et al. reported that most students who admitted to illicit use found procurement of the drugs to be stigma-free (DeSantis, Webb, and Noar 322). A later study conducted by DeSantis and Hane to assess justification found that students framed the use of prescription stimulants “as both physically harmless and morally acceptable.” They justified their illegal behavior through four different themes: 1) by comparing and contrasting with “party drugs,” 2) invoking the “all-things-in-moderation” argument, 3) claiming self-medication, and 4) minimizing the drugs as benign and socially acceptable (DeSantis and Hane 35). Judson and Langdon also reported that illicit users had a greater perception of the behavior as socially acceptable and were less concerned with the ethics and safety of use while also reporting more reasons to use and more instances of self-diagnosing an attention disorder compared to non-illicit users (101). Illicit use was shown to be higher among students who perceived the behavior to be common among friends and others on campus (Moore et al. 991; Reisinger, Rutledge, and Conklin 73). These findings indicate that social perceptions and norms are indeed influential on this illegal behavior.

**Summary of Literature**

Extensive research has been conducted investigating the prevalence of, contributing factors of, and motivations for illicit use of ADHD prescription stimulant medications. Findings correlating prevalent illicit use with competitive college admission standards and environments, certain dimensions of perfectionism, periods of high academic stress, and extensive histories of mental health disorders and issues, including test anxiety, psychological distress, anxiety disorder, and depression, are of particular interest for the purposes of the present study (McCabe et al. 100; Webb, Valasek, and North 28; Stoebber and Hothan 173; DeSantis, Webb, and Noar 317; Hanson et al. e62; Moore et al. 990; Burgard et al. 247; Bidwal et al. 535; Dussault and Weyandt 93; Thomas 30; Teter, Falone, et al. 294; Ford and Schroeder 26; Sattler and Wiegel 220; Sattler, Mehlkop et al. 14; Messer 16). Despite the wealth of reliable information associated with illicit use of ADHD medications available in the
literature, there is still a serious lack of research on the prevalence of this phenomenon among distinct undergraduate subpopulations, aside from Greek members and athletes. The wide variation in prevalence rates of illicit use between individual institutions clearly demonstrates that this phenomenon presents differently in college environments with unique student characteristics. Consequently, it seems likely that illicit use also fluctuates between subgroups of students on the same campus.

Illicit use among students who are high-achieving and/or held to higher academic expectations has not been well-studied. This type of student may include those enrolled in honors, those receiving academic scholarships, and those participating in residential colleges and programs. Honors and residential college students find themselves in highly competitive environments, and students receiving scholarships are evaluated on their academic performance on a regular basis. High-achieving students also typically experience much higher levels of pressure to achieve academic success and may develop unhealthy dimensions of perfectionism and other mental health disorders as a result (Cross and Cross 165). These factors can lead to heightened levels of academic stress indicative of increased potential for engaging in illicit use of ADHD medications. The present study thus investigates the association between mental health issues (e.g., stress, anxiety, and depression) and prevalence, frequency, and motivation for illicit use of ADHD medications among students held to above-average academic performance expectations, including academic scholarship recipients and honors and residential college students.

METHODS

Design

A 21-item survey was constructed in Qualtrics based on two surveys administered previously by separate research groups and on information available in the published literature (Dwyer 16; Moore et al. 988). Survey question topics included basic demographic information (age, ethnicity, and gender), academic information (class rank, cumulative GPA, major concentration college, enrollment in the honors college or another residential college or program at UCA, scholarship status, and housing arrangement), history of mental health (anxiety, depression, stress, and ADHD), frequency of illicit use of ADHD medications not prescribed to respondents themselves (admission of illicit use, occurrence of the first instance of illicit use, general
statement of frequency, and prevalence of illicit use within lifetime, past 12 months, past 30 days, and past 2 weeks), and motivation for such behavior. This study was approved by the Office of Research Compliance institutional review board at the University of Central Arkansas and was conducted at UCA during a 2-month period in November and December of 2015.

**Sample**

The final sample consisted of 230 UCA undergraduate students, with 70.9% female, 27.8% male, and 1.3% identifying as either nonbinary or gender-fluid. The sample consisted of 83.5% Caucasians, 6.1% African-Americans, 4.8% Hispanics, 5.5% Asian, and other racial categories. All four class ranks were fairly equally represented: 25.7% freshmen, 20.4% sophomores, 22.6% juniors, and 31.3% seniors. Survey respondents ranged in age from 18 to 32, with the mean being 20.5 and with 94.3% falling within the traditional college age range of 18 to 22 years old. No students under 18 years of age were allowed to take the survey, as 18 was the lowest value accepted in response to the question regarding age.

The mean cumulative GPA was 3.559, with 83.9% of survey respondents reporting a cumulative GPA greater than 3.000. Of the survey respondents, 14.8% were or had been enrolled in a residential college program, 58.7% were enrolled in the honors college, and 26.5% had never been a member of any residential college or program at UCA. Slightly more than three-quarters of the sample (76.5%) were scholarship recipients. There was approximately equal representation among housing arrangements, with 56.5% living on-campus (48.7% in a residence hall and 7.8% in an apartment) and 43.5% living off-campus (8.3% with family and 35.2% with friends or alone).

Slightly less than one-quarter (22.4%) of the sample had been diagnosed with anxiety disorder, with 9.6% currently taking prescribed medication and 12.7% not. In regard to depression, 8.8% reported having been diagnosed and currently taking prescribed medication, and 10.1% had been diagnosed but were not currently being treated (18.9% overall with a depression diagnosis). The mean self-reported stress level on a scale of 1 to 10, with 1 being the least stressful and 10 the most, during a typical semester was 6.75, with 78.1% of the sample reporting a stress level of 6 or higher. A small percentage of the sample (7.0%) had been diagnosed with ADHD, with 3.9% overall currently taking prescription medication and 3.1% not.

The sample was representative of the general UCA undergraduate population with respect to class rank and gender according to enrollment data for
the fall 2015 semester. However, Caucasians were overrepresented (83.5% vs. 69.6%) and African American students underrepresented (7.8% vs. 20.0%) in the sample. Additionally, among the six academic colleges, health & behavioral sciences and natural sciences & mathematics were overrepresented (47.0% vs. 29.1% and 24.3% vs. 13.1%, respectively), while undeclared students were underrepresented (1.3% vs. 22.0%) (“Institutional Research”).

**Statistical Analysis**

The initial analysis consisted of determining the overall prevalence rate for illicit use of ADHD medications as well as the effect of cumulative GPA, enrollment in the honors college or a residential college, scholarship status, and mental health history. Prevalence rates for illicit use among subgroups were calculated according to age, ethnicity, class rank, gender, cumulative GPA, college housing the major concentration, enrollment in the honors college or another residential college or program, housing arrangement, scholarship status, stress level, and mental health history. Within the group of respondents reporting illicit use, prevalence rates for general, lifetime, past-year, past-month, and past-two-weeks were determined as well as the timing of the first instance and motivations of illicit use. Chi-squared tests of independence were performed to test for differences in illicit use, cumulative GPA, enrollment in the honors college or a residential college, and mental health history by all of the aforementioned parameters. A $p$ level of 0.05 was used for each statistical test. The average cumulative GPA and reported stress level were also calculated for both illicit users and non-users in regard to diagnosis of anxiety disorder, depression, and/or ADHD; stress level; first instance of illicit use; motivations for illicit use; and prevalence rates of general, lifetime, past-year, past-month, and past-two-weeks illicit use.

**Research Questions**

1. What is the overall prevalence rate of illicit use of ADHD medications at UCA?

2. What is the relationship, if any, between mental health disorders and issues (e.g., anxiety, stress, depression, and ADHD) and illicit use?

3. Is there a significant difference in illicit use among learning community participants or scholarship recipients (i.e., those in the honors college, in the residential colleges, and/or receiving academic scholarships)
compared to students neither enrolled in a learning community nor receiving a scholarship?

4. Is there a correlation between GPA and illicit use?

5. What are the primary motivations for illicit use?

6. What factors are supported as predictive for illicit use from the survey responses?

Admission and Renewal Requirements for the Honors College

To be eligible for admission to the UCA Honors College, high school students must have a minimum cumulative high school GPA of 3.500 at the end of their seventh semester and must require no remediation based on ACT scores. The average GPA of students admitted, however, is a 3.90. No minimum composite ACT score is required, but the average score for students admitted is a 29.7. Additionally, applicants are evaluated based on class rank, a teacher recommendation letter, writing skills, and participation in a small group discussion (“Application Process”). The requirements for matriculating into the Honors Interdisciplinary Minor program at the end of the second semester of the sophomore year include 60 hours of completed course credit, a minimum overall GPA of 3.250, and a minimum GPA of 3.500 in all honors courses (“Matriculation Requirements”). All honors students are awarded an honors college scholarship (“Scholarship Information”).

Admission and Renewal Requirements for the Residential College Program

The Residential College Program at UCA is made up of five living and learning communities and one learning community of commuting students. These include the Health Promotion & Wellness (HPaW) Residential College in Baridon Hall; EDGE Residential College in Hughes Hall; The Stars Residential College in Short/Denney Hall; Science, Technology, Engineering & Mathematics (STEM) Residential College in Arkansas Hall; Entrepreneurship, Public Scholarship, Innovation, Community Engagement (EPIC) Residential College in Bear Hall; and Minton Commuter College in Old Main Hall (“Residential Colleges”). The retention and graduation rates are 12% and 10% higher, respectively, among students participating in the Residential College Program at UCA than among those who do not participate (“STEM Residential College”).
Admission and Renewal Requirements for Academic Scholarships

Six academic scholarships, defined by ACT/SAT scores within the last five years, are available to eligible entering freshmen at UCA. The minimum cumulative high school GPA for all these scholarships is 3.250 as of the sixth or seventh semester, and the award varies based on standardized test scores (“Academic Scholarships”). Students who receive one of these scholarships must enroll in a minimum of 12 credit hours each semester and earn a minimum of 9 credit hours at the end of each fall semester to meet renewal requirements. All scholarship students must earn a minimum of 27 credit hours during the first year, a minimum of 30 credit hours during each of the next three years, and either a 3.00 or 3.250 based on the scholarship category (“Academic Scholarships”).

RESULTS

Prevalence of Illicit Use of ADHD Medications by Student Characteristics

Approximately 18.0% (N = 41) of students reported lifetime illicit use of ADHD medications, 13.2% (N = 30) reported illicit use in the past year, 10.1% (N = 23) reported in the past month, and 8.3% (N = 19) within the past two weeks. Tables 1, 2, and 3 illustrate the differences in the prevalence in lifetime, past-year, past-month, and past-two-weeks illicit use among various subgroups defined by demographic, academic, and mental health characteristics.

As illustrated in Table 1, illicit use, regardless of timeframe, was most prevalent among undergraduate students younger in age, consistent with the findings of Kaye, Darke, and Torok (111). Illicit use was also most frequently reported by Hispanic students in contrast to consistent previous findings that illicit use is significantly higher among Caucasians (McCabe et al. 99; Wilens et al. 21). However, the sample for all races other than Caucasian was quite small in this study, and the percentage of Caucasian students reporting lifetime illicit use (18.8%) is consistent with that of the entire sample in this study (18.0%). With respect to gender, illicit use was most commonly reported by respondents who identified as either genderqueer or nonbinary although the sample size for this subgroup was only 3 students. Consistent with previous findings, a higher percentage of males reported illicit use than females (Hall et
<table>
<thead>
<tr>
<th>Student Demographic Characteristics</th>
<th>N</th>
<th>Lifetime Use %</th>
<th>Past Year Use %</th>
<th>Past Month Use %</th>
<th>Past Two Weeks Use %</th>
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<td><strong>Age</strong></td>
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<td></td>
<td></td>
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<tr>
<td>21</td>
<td>61</td>
<td>76.2</td>
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<td>9.8</td>
<td>9.8</td>
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<tr>
<td>22</td>
<td>24</td>
<td>18.2</td>
<td>8.3</td>
<td>8.3</td>
<td>8.3</td>
</tr>
<tr>
<td>23</td>
<td>6</td>
<td>4.3</td>
<td>16.7</td>
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<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>White (non-Hispanic)</td>
<td>192</td>
<td>18.8</td>
<td>13.5</td>
<td>9.9</td>
<td>8.3</td>
</tr>
<tr>
<td>Hispanic</td>
<td>11</td>
<td>27.3</td>
<td>27.3</td>
<td>27.3</td>
<td>18.2</td>
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<tr>
<td><strong>Gender</strong></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Female</td>
<td>163</td>
<td>15.3</td>
<td>10.4</td>
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<tr>
<td>Male</td>
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<td>On-campus in a residence hall</td>
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<td>5.4</td>
</tr>
<tr>
<td>On-campus in an apartment</td>
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<td>16.7</td>
<td>16.7</td>
<td>16.7</td>
<td>11.1</td>
</tr>
<tr>
<td>Off-campus with family</td>
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<td>15.8</td>
<td>5.3</td>
<td>5.3</td>
<td>5.3</td>
</tr>
<tr>
<td>Off-campus with friends or alone</td>
<td>81</td>
<td>27.2</td>
<td>19.8</td>
<td>12.3</td>
<td>12.3</td>
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</table>
In regard to housing, illicit use prevalence rates were much higher among students living off-campus alone or with friends than among students with any other arrangement, consistent with a previous finding that illicit use was higher among students living in personal residences as opposed to residence halls (Clegg-Kraynok et al. 599).

As illustrated in Table 2, the prevalence rate of illicit use generally increased with class rank, a higher percentage of upperclassmen (juniors and seniors) reporting illicit use than underclassmen (freshmen and sophomores), consistent with previous findings (Dwyer 12; Gallucci, Usdan, et al. 186; Kaye, Darke, and Torok 113). Although findings reported previously in the literature consistently correlate more frequent illicit use with lower GPA, illicit use prevalence rates fluctuated with respect to GPA in this study (Garnier-Dykstra et al. 230; McCabe et al. 99; Shillington et al. 999). Of the six colleges at UCA, illicit use within all timeframes considered was more frequently reported by students majoring in a field of study housed within the business college. The prevalence rate of illicit use was consistent across all timeframes considered for college of education students. Of students with a declared major, only those in fine arts & communication did not report any illicit use within the past month or past two weeks. The majority of natural sciences & mathematics students reported illicit use within the past year. The prevalence rate of illicit use during the past year and past month did not differ much among the health & behavioral sciences students.

The prevalence rates of illicit use among honors college students were consistent with those of the entire sample, with 17.0% (N = 23) of honors students reporting lifetime illicit use. Results from a previous study also failed to show that honors students engaged in illicit use more frequently than other students (Dwyer 14). Prevalence of illicit use was quite high among students in certain residential colleges (HPaW and EDGE), but the combined sample size for both of these populations was only 8 students in this study. Compared to honors students, residential college students (14.7%) reported less prevalent rates of lifetime illicit use. Additionally, the prevalence rate of illicit use across all four timeframes for students not enrolled either in the honors college or a residential college was higher than the overall average prevalence rates for the entire sample. The same is true of students not receiving an academic scholarship from UCA although the prevalence rates of illicit use among scholarship recipients was generally consistent with those of the entire sample.
<table>
<thead>
<tr>
<th>Student Academic Characteristics</th>
<th>N</th>
<th>Lifetime Use %</th>
<th>Past Year Use %</th>
<th>Past Month Use %</th>
<th>Past Two Weeks Use %</th>
</tr>
</thead>
<tbody>
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<td>Class Rank</td>
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<td>Freshman</td>
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<td>3.7</td>
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</tr>
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<td>HPAW</td>
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<td>50.0</td>
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<td>33.3</td>
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<td>EDGE</td>
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<td>9.1</td>
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<td>The Stars</td>
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<td>0.0</td>
<td>0.0</td>
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</tr>
<tr>
<td>STEM</td>
<td>11</td>
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<td>0.0</td>
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</tr>
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<td>EPIC</td>
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<td>50.0</td>
<td>50.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Minton</td>
<td>1</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Honors College</td>
<td>135</td>
<td>17.0</td>
<td>13.3</td>
<td>9.6</td>
<td>7.4</td>
</tr>
<tr>
<td>Not in Honors or Residential</td>
<td>61</td>
<td>21.3</td>
<td>14.8</td>
<td>13.1</td>
<td>11.5</td>
</tr>
<tr>
<td>Scholarship Status</td>
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<tr>
<td>Recipient</td>
<td>176</td>
<td>16.5</td>
<td>11.9</td>
<td>9.1</td>
<td>7.4</td>
</tr>
<tr>
<td>Not a recipient</td>
<td>54</td>
<td>22.2</td>
<td>16.7</td>
<td>13.0</td>
<td>11.1</td>
</tr>
</tbody>
</table>
As illustrated in Table 3, illicit use across all four timeframes was more frequently reported by students who had been diagnosed with either anxiety or depression but were not currently taking prescribed medications to treat these mental health disorders. With respect to ADHD, the prevalence rate of lifetime illicit use was approximately equal among students who had been diagnosed with ADHD (44.4% of ADHD students with a current prescription compared to 42.9% of ADHD students not currently taking prescribed medications) and much higher than the rate of lifetime illicit use among

### Table 3. Prevalence of Illicit Use of ADHD Medications by Student Mental Health Characteristics

<table>
<thead>
<tr>
<th>Student Mental Health Characteristics</th>
<th>N</th>
<th>Lifetime Use %</th>
<th>Past Year Use %</th>
<th>Past Month Use %</th>
<th>Past Two Weeks Use %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diagnosis/current prescription</td>
<td>22</td>
<td>18.2</td>
<td>18.2</td>
<td>13.6</td>
<td>13.6</td>
</tr>
<tr>
<td>Diagnosis/no current prescription</td>
<td>29</td>
<td>34.5</td>
<td>24.1</td>
<td>17.2</td>
<td>17.2</td>
</tr>
<tr>
<td>No diagnosis</td>
<td>177</td>
<td>15.3</td>
<td>10.7</td>
<td>8.5</td>
<td>6.2</td>
</tr>
<tr>
<td>Depression</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diagnosis/current prescription</td>
<td>20</td>
<td>25.0</td>
<td>20.0</td>
<td>15.0</td>
<td>15.0</td>
</tr>
<tr>
<td>Diagnosis/no current prescription</td>
<td>23</td>
<td>43.5</td>
<td>34.8</td>
<td>30.4</td>
<td>26.1</td>
</tr>
<tr>
<td>No diagnosis</td>
<td>185</td>
<td>14.1</td>
<td>9.7</td>
<td>7.0</td>
<td>5.4</td>
</tr>
<tr>
<td>Stress Level</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>4</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>2</td>
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<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>20.0</td>
<td>20.0</td>
<td>20.0</td>
<td>20.0</td>
</tr>
<tr>
<td>4</td>
<td>15</td>
<td>26.7</td>
<td>6.7</td>
<td>6.7</td>
<td>6.7</td>
</tr>
<tr>
<td>5</td>
<td>24</td>
<td>20.8</td>
<td>12.5</td>
<td>12.5</td>
<td>8.3</td>
</tr>
<tr>
<td>6</td>
<td>32</td>
<td>12.5</td>
<td>12.5</td>
<td>9.4</td>
<td>9.4</td>
</tr>
<tr>
<td>7</td>
<td>64</td>
<td>17.2</td>
<td>9.4</td>
<td>7.8</td>
<td>7.8</td>
</tr>
<tr>
<td>8</td>
<td>53</td>
<td>13.2</td>
<td>13.2</td>
<td>5.7</td>
<td>3.8</td>
</tr>
<tr>
<td>9</td>
<td>19</td>
<td>31.6</td>
<td>26.3</td>
<td>12.1</td>
<td>15.8</td>
</tr>
<tr>
<td>10</td>
<td>10</td>
<td>30.0</td>
<td>30.0</td>
<td>30.0</td>
<td>20.0</td>
</tr>
<tr>
<td>ADHD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diagnosis/current prescription</td>
<td>9</td>
<td>44.4</td>
<td>22.2</td>
<td>0.0</td>
<td>11.1</td>
</tr>
<tr>
<td>Diagnosis/no current prescription</td>
<td>7</td>
<td>42.9</td>
<td>14.3</td>
<td>14.3</td>
<td>0.0</td>
</tr>
<tr>
<td>No diagnosis</td>
<td>212</td>
<td>16</td>
<td>12.7</td>
<td>10.4</td>
<td>8.5</td>
</tr>
</tbody>
</table>
students who had never been diagnosed with ADHD. These results support previous findings associating more prevalent illicit use with a diagnosis of ADHD (Webb, Valasek, and North 27; Gallucci, Usdan, et al 184; Judson and Langdon 100). In general, students who had been diagnosed with any of the three mental health disorders considered (anxiety, depression, and ADHD), regardless of current prescription status, more commonly reported illicit use than those students without diagnoses. These results are consistent with previous findings associating more frequent illicit use among students with more extensive histories of anxiety disorder and depression (Bidwal et al. 535). Prevalence of illicit use fluctuated with respect to average perceived stress level experienced during a typical college semester (scale of 1–10), but lifetime illicit use was by far most commonly reported by students who indicated an average stress level of 9 (31.6%) or 10 (30.0%). Students who reported the lowest average stress levels (1 or 2) did not indicate any illicit use at all. These findings are generally consistent with the results of previous studies associating illicit use with higher ratings of stress (Bidwal et al. 535; Dussault and Weyandt 93).

**Frequency, Timing, and Motivation for Lifetime Illicit Use**

The general frequency of illicit use, timing of the first instance of illicit use with respect to education level, and motivations for illicit use reported by the lifetime illicit users (N = 41) in the sample are illustrated in Table 4. The majority of survey respondents who admitted to having illicitly used ADHD medications at least once during their lifetime (41.5%) generally did so at least once per semester, with close to one-third (29.3%) reporting that they engaged in illicit use at least once per month. None of the lifetime illicit users reported a general frequency of illicit use of at least once per day. More than half of illicit users (61.0%) indicated that they had not engaged in this behavior until after they were in college, with the remainder of illicit users (36.6%) having first illicitly used ADHD medications while still in high school. This finding is consistent with the results of a previous study in which the majority of illicit users indicated that they had not used stimulant medications before college (Thomas 31).

Of the fourteen provided motivations for illicit use, the top three most commonly reported by illicit users were to improve concentration (85.4%), to do better in school (68.3%), and to increase alertness (56.1%). Each of these is related to academic performance, either directly or indirectly, echoing findings reported in the literature that have consistently associated
motivations regarding the effects of ADHD medications, such as improving concentration and increasing alertness, with students wanting to stay up all night or stay focused while studying or working on assignments. Thus, these results are consistent with the primary motivation for illicit use being related to academics as documented in previous studies (Arria, Caldeira, et al. 162; Benson, Flory, and Humphreys 62; Garnier-Dykstra et al. 230; Bossaer et al. 969; DeSantis, Webb, and Noar 318; Teter, McCabe, et al. 1501; Webb, Valasek, and North 30). Slightly less than one-quarter of illicit users (22.0%) reported a motive related to curiosity (“to see what it was like”). None of the lifetime illicit users selected either of the two provided responses comparing the safety and potential for addiction of ADHD medications and “street

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>N</th>
<th>% of Lifetime Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>General frequency of illicit use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>At least once per year</td>
<td>6</td>
<td>14.6</td>
</tr>
<tr>
<td>At least once per semester</td>
<td>17</td>
<td>41.5</td>
</tr>
<tr>
<td>At least once per month</td>
<td>12</td>
<td>29.3</td>
</tr>
<tr>
<td>At least once per week</td>
<td>2</td>
<td>4.9</td>
</tr>
<tr>
<td>First instance of illicit use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>College</td>
<td>25</td>
<td>61.0</td>
</tr>
<tr>
<td>High school</td>
<td>15</td>
<td>36.6</td>
</tr>
<tr>
<td>Motivations for illicit use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To improve concentration</td>
<td>35</td>
<td>85.4</td>
</tr>
<tr>
<td>To do better in school</td>
<td>28</td>
<td>68.3</td>
</tr>
<tr>
<td>To increase alertness</td>
<td>23</td>
<td>56.1</td>
</tr>
<tr>
<td>To see what it was like</td>
<td>9</td>
<td>22.0</td>
</tr>
<tr>
<td>To get high</td>
<td>4</td>
<td>9.8</td>
</tr>
<tr>
<td>To feel better</td>
<td>4</td>
<td>9.8</td>
</tr>
<tr>
<td>To help lose weight</td>
<td>3</td>
<td>7.3</td>
</tr>
<tr>
<td>To escape from reality</td>
<td>3</td>
<td>7.3</td>
</tr>
<tr>
<td>To counter the effects of other drugs</td>
<td>2</td>
<td>4.9</td>
</tr>
<tr>
<td>To self-medicate</td>
<td>2</td>
<td>4.9</td>
</tr>
<tr>
<td>Because of a personal/emotional problem</td>
<td>2</td>
<td>4.9</td>
</tr>
<tr>
<td>Because of an addiction</td>
<td>1</td>
<td>2.4</td>
</tr>
</tbody>
</table>
drugs" as motivations for illicit use ("because ADHD medications seem safer than street drugs" and "because ADHD medications seem less addictive than street drugs"); this result is seemingly in contrast to findings from a previous study that reported comparing and contrasting ADHD medications with "party drugs" as the primary theme of justification among illicit users (DeSantis and Hane 35).

**Correlates of Lifetime, Past-Year, Past-Month, and Past-Two-Weeks Illicit Use**

Chi-squared tests of goodness of fit and independence performed on survey response data revealed several significant correlates ($p < 0.05$) of illicit use of ADHD medications within lifetime, past-year, past-month, and past-two-weeks timeframes, as illustrated in Table 5. Lifetime illicit use was significantly higher among students who were living off-campus with friends or alone, who had been diagnosed with either anxiety or depression but were not currently taking prescribed medications to treat these disorders, and who had been diagnosed with ADHD and were current prescription holders. Furthermore, having been diagnosed with either anxiety, depression, or ADHD was significantly correlated with lifetime illicit use, regardless of current prescription status. The relationship between diagnosis of either depression or ADHD and lifetime illicit use was even stronger when considered in this way, as evidenced by the smaller $p$-values associated with these diagnoses.

The prevalence of illicit use within the past year was significantly higher among students who reported an average stress level of 9 or 10. With respect to depression diagnosis and prescription status, past-year illicit use was significantly more common among students who had been diagnosed with depression but were not currently taking prescription medications to treat depression. As with lifetime illicit use, this correlation was stronger when only depression diagnosis status was considered, with the prevalence rate of past-year illicit use being significantly higher among students who had been diagnosed with depression. Likewise, when prescription status was not taken into account, a significantly higher percentage of students who had been diagnosed with anxiety disorder reported illicit use within the past year compared to students without an anxiety disorder diagnosis.

Additional findings not shown include that past-month illicit use was significantly more prevalent among students who were majoring in a field of study housed within the business college, who had been diagnosed with depression but were not current prescription holders (or who had been
diagnosed with depression compared to those who had not, without factoring in prescription status), or who reported an average stress level of 9 or 10.

Furthermore, illicit use of ADHD medications occurring within the past two weeks was significantly higher among students who had a cumulative GPA falling within the range of 3.001–3.250, who were majoring in a field of study housed within the business college, who had been diagnosed with depression but were not currently taking prescribed medication, or who

**Table 5. Correlates of Lifetime Illicit Use**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>N</th>
<th>Illicit Use %</th>
<th>X² P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Housing Arrangement</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>On-campus in a residence hall</td>
<td>112</td>
<td>11.6</td>
<td></td>
</tr>
<tr>
<td>On-campus in an apartment</td>
<td>18</td>
<td>16.7</td>
<td></td>
</tr>
<tr>
<td>Off-campus with family</td>
<td>19</td>
<td>15.8</td>
<td></td>
</tr>
<tr>
<td>Off-campus with friends or alone</td>
<td>81</td>
<td>27.2</td>
<td></td>
</tr>
<tr>
<td><strong>Anxiety Prescription Status</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diagnosis/current prescription</td>
<td>22</td>
<td>18.2</td>
<td></td>
</tr>
<tr>
<td>Diagnosis/no current prescription</td>
<td>29</td>
<td>34.5</td>
<td>0.044 0</td>
</tr>
<tr>
<td>No diagnosis</td>
<td>177</td>
<td>15.3</td>
<td></td>
</tr>
<tr>
<td><strong>Depression Prescription Status</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diagnosis/current prescription</td>
<td>20</td>
<td>25.0</td>
<td>0.001 7</td>
</tr>
<tr>
<td>Diagnosis/no current prescription</td>
<td>23</td>
<td>43.5</td>
<td></td>
</tr>
<tr>
<td>No diagnosis</td>
<td>185</td>
<td>14.1</td>
<td></td>
</tr>
<tr>
<td><strong>ADHD Prescription Status</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diagnosis/current prescription</td>
<td>9</td>
<td>44.4</td>
<td></td>
</tr>
<tr>
<td>Diagnosis/no current prescription</td>
<td>7</td>
<td>42.9</td>
<td>0.020 7</td>
</tr>
<tr>
<td>No diagnosis</td>
<td>212</td>
<td>16.0</td>
<td></td>
</tr>
<tr>
<td><strong>Anxiety Diagnosis Status</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diagnosis</td>
<td>51</td>
<td>27.5</td>
<td>0.045 7</td>
</tr>
<tr>
<td>No diagnosis</td>
<td>177</td>
<td>15.3</td>
<td></td>
</tr>
<tr>
<td><strong>Depression Diagnosis Status</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diagnosis</td>
<td>43</td>
<td>34.9</td>
<td>0.001 4</td>
</tr>
<tr>
<td>No diagnosis</td>
<td>185</td>
<td>14.1</td>
<td></td>
</tr>
<tr>
<td><strong>ADHD Diagnosis Status</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diagnosis</td>
<td>16</td>
<td>43.8</td>
<td>0.005 4</td>
</tr>
<tr>
<td>No diagnosis</td>
<td>212</td>
<td>16.0</td>
<td></td>
</tr>
</tbody>
</table>
had been diagnosed with either anxiety disorder or depression when current prescription status was not taken into account. There was also a significant difference in illicit use within the past two weeks regarding gender, with the highest prevalence among students who did not identify as either female or male (genderqueer or nonbinary). However, only 3 students in the entire sample identified as something other than female or male. There is likely still a significant difference in past-two-weeks illicit use with respect to gender, though, as a chi-squared test yields a \( p \)-value of less than 0.05 if responses from only students identifying with either side of the gender binary are considered. Illicit use within the past two weeks was also significantly higher among males.

While there is a lack of associations reported between either housing arrangement or college housing, the major field of study, and illicit use in the literature, in general the results reported in Table 5 are consistent with the findings of published studies. These results echo the well-documented significant correlations between higher rates of illicit use and having a history of mental health disorders and issues (such as anxiety, depression, and stress), being diagnosed with ADHD, having a relatively “low” GPA, and being a male (Bidwal et al. 535; Dussault and Weyandt 93; Webb, Valasek, and North 27; Gallucci, Usdan, et al. 185; Judson and Langdon 100; Garnier-Dykstra et al. 230; McCabe et al. 101; Shillington et al. 999; Hall et al. 169; Dwyer 14). Being diagnosed with either depression or anxiety was significantly correlated to more prevalent illicit use over their lifetime, within the past year, and within the past two weeks, but not within the past month.

**Correlation of Lifetime Illicit Use with Multiple Mental Health Disorder Diagnoses**

The effect of being diagnosed with multiple mental health disorders (anxiety, depression, and ADHD) on lifetime illicit use is illustrated in Table 6. As shown, the prevalence rate of lifetime illicit use increases with the number

<table>
<thead>
<tr>
<th>Number of Diagnoses</th>
<th>N</th>
<th>Illicit Use %</th>
<th>( X^2 ) P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>No diagnoses</td>
<td>158</td>
<td>13.3</td>
<td></td>
</tr>
<tr>
<td>1 diagnosis</td>
<td>37</td>
<td>21.6</td>
<td></td>
</tr>
<tr>
<td>2 diagnoses</td>
<td>26</td>
<td>30.8</td>
<td></td>
</tr>
<tr>
<td>All 3 diagnoses</td>
<td>7</td>
<td>57.1</td>
<td>0.0049</td>
</tr>
</tbody>
</table>

**Table 6. Correlation of Lifetime Illicit Use with Multiple Mental Health Disorder Diagnoses.**
of diagnoses of mental health disorders. Survey respondents who indicated that they had been diagnosed with anxiety disorder, depression, and ADHD were significantly more likely to have engaged in illicit use of ADHD medications at least once during their lifetime, consistent with results reported in the literature (Bidwal et al. 535; Dussault and Weyandt 93; Webb, Valasek, and North 27; Gallucci, Usdan, et al. 184; Judson and Langdon 100).

DISCUSSION

The present study found that the population of UCA undergraduate students reporting lifetime illicit use of ADHD medications was 18.0%, past-year illicit use was 13.2%, past-month was 10.1%, and past-two-weeks was 8.3%. Illicit use was higher among certain types of students, in particular those of traditional college age (18–22), Hispanic and Black students, males, students living off-campus alone or with friends, upperclassmen, business students, students not enrolled in a residential college or the honors college, students not receiving an academic scholarship, students perceiving their typical semester to be more stressful, and students diagnosed with anxiety, depression, and/or ADHD.

Of those students indicating illicit use, the majority reported that they generally engaged in illicit use at least once per semester or at least once per month, that they had not illicitly used ADHD medications until they were in college, and that they did so to improve concentration, to do better in school, and/or to increase alertness. Illicit use, regardless of timeframe, was significantly higher among students who had been diagnosed with depression but were not currently taking prescribed medications to treat it. Being diagnosed with anxiety disorder was also significantly correlated with higher prevalence rates of illicit use during lifetime, the past year, and the past two weeks. Additionally, lifetime illicit use was significantly more frequent among students living off-campus with friends or alone and among students with ADHD. Students reporting an average stress level during a typical semester of 9 or 10 (on a scale of 1–10) also reported significantly higher levels of illicit use within the past year and past month. Business students reported a significantly higher rate of illicit use within the past month and the past two weeks. Finally, males and students with a cumulative GPA falling within the range of 3.001–3.250 reported significantly higher rates of illicit use within the past two weeks.

Prevalence rates of lifetime illicit use increased significantly with increasing numbers of diagnoses of mental health disorders and issues (anxiety
disorder, depression, and ADHD). Being diagnosed with one of the three mental health disorders considered in this study was also significantly correlated to being diagnosed with each of the other two. Additionally, diagnoses of each of the three disorders were significantly more common among students not participating in a residential college or the honors college. Students who reported that they had been diagnosed with anxiety disorder were significantly more likely to be female and to not be in the honors college. Students reporting an average stress level of 9 or 10 had a significantly higher prevalence rate of both anxiety disorder and depression diagnosis. The prevalence of an ADHD diagnosis was significantly higher among seniors, students with relatively lower GPAs, students not in the honors college, students living off-campus, and students not receiving an academic scholarship.

More frequent illicit use has been consistently associated with high levels of academic stress, more competitive college admission standards and environments, certain dimensions of perfectionism, parental pressure, and motivations related to enhanced academic performance. Students enrolled in honors colleges or programs and students receiving academic scholarships are subjected to higher academic standards than their peers in order to remain competitive and/or to continue receiving their scholarship. Personal anecdotal evidence also suggests that these types of students are more likely to be involved in many extracurricular activities, to choose more difficult classes and major fields of study, and to feel considerable pressure to be perfect, either internally through comparison with their fellow high-achieving peers or externally from their parents. Thus, we anticipated that the prevalence rate of illicit use of ADHD medications would be significantly higher among students enrolled in the honors college or a residential college and among students receiving an academic scholarship from UCA, but this expectation was not supported by the results of our study.

Participating in a living-learning community such as the honors college or the residential colleges may possibly serve as a protective factor against illicit use of ADHD medications. Honors and residential college students typically live together, affording them easy access to peers having similar experiences, to faculty members and resident masters, and to other resources. This type of environment may provide a better support network for students who are having trouble coping with their hectic schedules. However, because research has shown illicit use to be strongly correlated with having friends who also engage in this behavior and with seeing this behavior as normative, these types of college communities have a high potential for widespread ADHD medication abuse.
Given the strong association between illicit use and mental health disorders, the desire to improve academic performance, and the use of ADHD psychostimulants, it is important to assess the prevalence of this problem within individual communities on college campuses. The characteristics and motivations of students who illicitly use ADHD medications must be understood before any sort of preventive strategy can be implemented, and rampant illicit use may be a sign of larger mental health issues at play within student populations.

**Research Limitations**

The sample used in the present study was lacking in adequate representation of all races other than Caucasian, students identifying as male or nonbinary/genderqueer, students majoring in a field of study not housed within the college of health & behavioral sciences, undeclared students, residential college students, students not enrolled in the honors college, and students not receiving an academic scholarship at UCA. While the sample was generally representative of the UCA Honors College population, a more representative non-honors and/or non-scholarship control sample is needed for better comparison to assess whether illicit use of ADHD medications is more prevalent among high-achieving students. Additionally, the survey used in conjunction with this study was administered late in the fall 2015 semester, after the honors college had already implemented a peer counseling program in addition to the long-running mentor program. Providing this type of support network among peers may have played a protective role against illicit use of ADHD medications, but any potential effect cannot be measured.

The effect of participating in a living-learning community could have been better assessed had the survey included items to gauge respondents’ knowledge of peer use and perceptions of illicit use of ADHD medications as normative, safe, and/or morally and ethically acceptable. Moreover, the prevalence of academic motivation for engaging in illicit use could have been more directly evaluated by including measures to determine whether illicit users felt that the ADHD medications had a significant effect on their academic performance, either through improved GPA and/or test scores or a strengthened ability to concentrate and study.
FUTURE RESEARCH AND FINAL CONCLUSIONS

The literature has consistently reported and supported differences in illicit use of ADHD medications among college students as determined by race, gender, age, class rank, GPA, participation in Greek life, knowledge of peer use, competitiveness of admission standards and high-stakes college environments, academic and non-academic motivations, stress and academic pressure, and history of mental health disorders and issues. However, despite all the significant correlates of illicit use that have been found many times over, there is still a serious lack of research on the prevalence of this behavior among small, specialized subpopulations. Given the wide fluctuation in the prevalence rates of illicit use among individual institutions in different geographic locations and over time, basing strategies of intervention and prevention on the general college population is insufficient. While the literature ties more frequent illicit use to academic stress, highly competitive college environments, and certain dimensions of perfectionism, it needs to include studies of the prevalence of this behavior among high-achieving students.

Students in honors colleges or programs are typically “the best of the best” from their high schools, and many experience a shock once they arrive at college and realize they are surrounded by hundreds of other high-achieving students just like them. This situation typically leaves students two options: either learn to cope with not being the star student or use any means necessary to remain competitive with their peers. Often these kinds of students did not have to put forth great effort in order to excel academically in high school, and consequently their study habits and time-management skills can be undeveloped. Honors students may be more involved in extracurricular activities and organizations; be ambitious in their course load and career plans; feel parental pressure to be perfect; and experience test anxiety at levels higher than the non-honors undergraduate population. Research has also shown that “gifted individuals” are at a unique risk for developing mental health disorders such as unhealthy perfectionism, anxiety, depression, and suicidality because of “chronic, heightened expectations from others for performance” (Cross and Cross 165). The distinct experiences of gifted and high-achieving students give rise to their unique counseling needs, marking them as an undergraduate subpopulation potentially at high risk for illicit use and hence of interest and relevance to this field of research.

Further research should assess the prevalence rates, contributing and predictive factors, acceptance, and motivations for the nonmedical use of
ADHD prescription medications among American undergraduate students who are high-achieving and/or held to high academic expectations, such as honors students, scholarship recipients, and residential college/program participants. Additionally, honors directors should consider special programs for students that focus on helping students reduce anxiety, better manage their time, and find ways to reduce stress. The campus housing and residence life offices and the counseling center can be effective partners in delivering such programs. In addition to one-time programs to address these issues, mentor programs and peer coach programs have had significant success in creating environments that encourage students to approach designated student leaders with their issues, thereby increasing the chances of receiving intervention.

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Honors Student Thriving: A Model of Academic, Psychological, and Social Wellbeing

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Although academic success in honors programs is easily quantified, student thriving has not been previously measured. Honors students are often recruited to raise the academic profiles of their institutions (Carlson; Hebel) and so tend to excel academically in ways that can be measured by grades and graduation rates. Little is empirically known, however, about their holistic success and wellbeing while in college (Boazman; Moon; Slavin, Coladarci, & Pratt; Walker). Because they are no more immune than other students to psychological and social impediments, they may be succeeding but not thriving in their college experience.

Thriving—defined as academic, psychological, and interpersonal wellbeing and engagement (Schreiner, “Thriving: Expanding”)—is a recent concept that expands the traditional approach of measuring college student success, which has historically been measured by such cognitive measures as GPA.
Thriving measures malleable psychosocial factors—i.e., academic determination, engaged learning, positive perspective, diverse citizenship, and social connectedness—that influence student behavior and contribute to such key success outcomes as persistence and GPA. When college students thrive, they are fully engaged academically, psychologically, and socially; in essence, they are getting the most out of college.

The main purpose of the present study was to develop a pictorial model of honors student thriving by investigating the pathways that predict a psychological sense of community, campus involvement, spirituality, student-faculty interaction, living on campus, certainty about a major, degree goals, and first choice of institution. This study further aimed to better understand honors students’ levels of academic determination, engaged learning, positive perspective, diverse citizenship, and social connectedness. Better understanding how honors students thrive can enable honors administrators, faculty, and staff to engage students in more productive and meaningful ways.

We first provide readers with an overview of the pertinent research on honors students’ characteristics and thriving as a conceptual framework and then guide readers through the quantitative development and meaning of an emerging model of honors student thriving based on a national sample of honors students. Finally, we offer recommendations to honors educators about helping students thrive.

**LITERATURE REVIEW**

Honors students often display a unique constellation of characteristics that propel them to succeed in college and life. However, these characteristics may also cause stressors that place students at risk as they encounter the challenging learning environments to which they are drawn (Klein). Academic, psychological, and social characteristics may thus both promote and inhibit honors students’ success.

**Academic Characteristics**

Scholars and practitioners have described honors students as engaged in their own learning (Barnes); motivated and internally driven to succeed academically (Hammond, McBee, & Hebert; Robinson); high in academic self-concepts (Rinn); and aspiring to graduate or professional study (Bradshaw, Espinosa, & Hausman; Satterfield). In addition, honors students tend to have a strong work ethic (Smith & Zhang) and are committed to their
studies (Rau & Durand). Most students opt to participate in honors programs because they consider the learning environment to be an ideal match for their academic drive, learning preferences, and educational expectations (Chancey). Students enrolled in honors programs tend to seek academic recognition, believe in their ability to academically perform, look to develop a competitive edge in their careers, and embrace challenge (Robbins). Their curiosity, imagination, and creativity (Freyman; Giazzoni & Hilberg), along with a love of learning (Giazzoni & Hilberg) and higher-order thinking (Robinson), are often what distinguish honors students from their peers.

Despite these characteristics, Freyman warns that some honors students, especially those who bring in substantial amounts of AP credit, may be so concerned about grades and career preparation that they may avoid taking risks to expand their learning. Consequently, some honors students may strategically remain surface-level learners rather than engage in deep learning (Tagg, *The Learning Paradigm* and “Why Learn?”). Furthermore, some may experience such academic challenges as poor time management or writing skills (Longo) or may easily experience boredom (Robinson), which can impede their engagement in learning. Because honors students may also be less inclined to ask for help (Badenhausen), they may be at risk for greater academic, psychological, and emotional struggle. Some students may struggle psychologically as they discover they are not the only top performers as they had been in high school (Rinn).

**Psychological Characteristics**

Characteristics of honors students such as perfectionism, multipotentiality, and indecision can manifest in ways that either promote or impede their psychological wellbeing (Walker) and success. For example, some evidence suggests that honors students who perceive greater academic obstacles can experience anxiety and feel that they have little control over their lives; as a result, they are less likely to build positive relationships with others, feel they have a purpose in life, and accept the negative and positive qualities about themselves (Walker). Perfectionism, a common characteristic of honors students, ranges on a scale from adaptive to maladaptive (Burns & Evans). Although adaptive perfectionism can drive academic performance (Schuler), maladaptive perfectionism has been connected to headaches, eating disorders, substance abuse, depression, anxiety, and suicide (Flett & Hewitt); they may also have trouble choosing a major or career path, which could lead them to drop out of college (Greene, “Gifted Adrift”).
The struggle to identify career goals is not only a characteristic of perfectionism but also a psychological challenge for many honors students because of their multipotentiality, or the variety of interests in which they have the potential to excel (Carduner, Padak, & Reynolds). Consequently, some undecided honors students may be overwhelmed by their options. Such students often avoid seeking guidance they need to narrow their major and career interests (Carduner, Padak, & Reynolds); some may not know how to ask for help and others may avoid getting help because they see it as a threat to their self-concept, feeling that it “calls their very identity into question” (Badenhausen 28).

The mental health of their students is a growing concern among honors educators (Owens & Giazzoni). Given the growing college student mental health crisis in the United States (ACHA), a better understanding of the psychological characteristics and behaviors of honors students is warranted to best help them thrive.

**Interpersonal Characteristics**

Although honors students’ interpersonal characteristics have not been investigated thoroughly, several findings are highlighted in the literature. Moon found that honors students are more likely to engage with students having different religious, political, and personal beliefs than non-honors students. Honors students are often drawn to the honors environment because they perceive they will belong, make connections with other students who share similar academic motivations and curiosity, and discuss diverse issues (Soldner et al.). Within the honors environment, students often develop positive social relations with peers (Decker; Moon; Soldner et al.; Wawrzynski, Madden, & Jensen) and faculty (Cossentino). However, some honors students have trouble developing relationships with peers beyond the classroom (Owens & Giazzoni). This difficulty particularly occurs among those who perceive greater academic obstacles (Walker).

**CONCEPTUAL FRAMEWORK**

Thriving is a construct that is situated at the intersection of positive psychology and higher education (Schreiner, “Thriving in College”), building on Bean and Eaton’s psychological model of college student retention as well as Keyes and Haidt’s concept of flourishing. Bean and Eaton posit that students bring a set of psychological characteristics that shape their college
experiences and influence their subsequent academic engagement, social integration, and persistence in college. Keyes and Haidt describe flourishing adults as those who experience emotional vitality and positive functioning even when encountering crises or disappointments. Flourishing people are filled with positive emotions, display resiliency in the face of challenges, develop positive relationships, are engaged as productive citizens, and seek to make a difference in others’ lives (Keyes; Keyes & Haidt).

As the conceptual framework for our study, thriving consists of the psychosocial factors that researchers have found impact the college student experience and contribute to student success (Habley, Bloom, & Robbins). Psychosocial factors are noncognitive attributes such as personality traits, attitudes, and behaviors. Prior research has found that such psychosocial factors as self-efficacy, academic motivation and discipline, commitment to college, and social connection influence student persistence, GPA, and graduation (Robbins, Allen, et al.; Robbins, Lauver, et al.; Robbins, Oh, et al.). Because psychosocial factors are malleable (Robbins, Lauver, et al.), they can be influenced through interventions.

Building on this research, Schreiner (“The ‘Thriving Quotient’” and “From Surviving”) developed a concept of thriving that is predicated on malleable psychosocial factors, which include motivational and psychological processes that shape student behavior and subsequent outcomes such as persistence to degree, satisfaction, and GPA (Schreiner, Kalinkewicz, et al.). In “From Surviving to Thriving During Transitions,” Schreiner conceptualizes thriving as academic, psychological, and social wellbeing, describing thriving college students as those who

are engaged in their own learning; are determined to succeed academically; grow personally; develop positive relationships with peers, faculty, and others; build connections within the community and are committed to making a difference; and establish ways of seeing themselves that enable them to gain maximum benefit from both the college experience and life after college. (4)

**Five Factors of Thriving**

Thriving is comprised of five factors: engaged learning, academic determination, positive perspective, diverse citizenship, and social connectedness (Schreiner, McIntosh, et al.). *Engaged learning* measures students’ levels of energy and meaningful processing during the learning experience. Engaged learners experience greater satisfaction with college and persistence to
graduation (Schreiner & Louis), as well as higher GPAs and greater institutional fit (Schreiner, Pothoven, et al.).

*Academic determination* describes students’ use of such academic strategies as hope (Snyder), investment of effort (Robbins, Lauver, et al.), self-regulated learning (Pintrich, “The Role” and “A Conceptual Framework”), and environmental mastery (Ryff) that lead to higher GPAs and a greater likelihood of learning gains and persistence to graduation (Schreiner, “From Surviving”).

*Positive perspective* is an optimistic view of both current and future experiences (Schreiner, “The ‘Thriving Quotient’”). Thriving college students tend to possess what Seligman (Authentic) refers to as an optimistic explanatory style, which enables them to reframe negative events as temporary setbacks that can be overcome with renewed effort or different strategies. This explanatory style leads to resilience in meeting challenges and has been correlated to student success outcomes like better adjustment to college (Brissette, Scheier, & Carver) and greater psychological wellbeing (Burris et al.).

*Diverse citizenship* includes interest and appreciation of differences in others as well as commitment to making the world a better place through social change (Schreiner, “The ‘Thriving Quotient’” and “Thriving in Community”). Higher levels of diverse citizenship have been correlated with a stronger intent to persist in college (Schreiner, Pothoven, et al.).

Finally, *social connectedness* refers to students’ desire to develop and maintain positive and meaningful relations with others (Schreiner, “The “Thriving Quotient””). Healthy relationships and social support promote psychological wellbeing (Diener, Oishi, & Lucas; Seligman, *Flourish*) and influence student persistence (Allen et al.).

**Pathways and Predictors of College Student Thriving**

The existing literature shows that the pathways and predictors that contribute to college student thriving vary across different student groups, including first-year students (Nelson & Vetter; Schreiner, Kitomary, & Seppelt), graduate students (Petridis & Schreiner), sophomores (Schreiner, Slavin Miller, et al.), transfer students (McIntosh & Nelson), and students of color (McIntosh; Schreiner, Edens, & McIntosh; Schreiner, Kammer, et al.; Schreiner, Kitomary, & Seppelt; Schreiner, Vetter, et al.). Following this pattern, we anticipate that the pathways and predictors that contribute to honors student thriving will also be unique.

Pathways are the relationships between campus experiences and student characteristics that either directly or indirectly contribute to the variation in
college student thriving. For example, students may select a particular college as their first choice, leading to increased certainty about a major, leading to greater student-faculty interaction, leading to a stronger psychological sense of community, and contributing to a variation of thriving. Predictors are the key variables in the structural model: psychological sense of community, spirituality, student-faculty interaction, campus involvement, major certainty, entry characteristics, and institutional characteristics.

**Psychological sense of community.** In all thriving studies, a psychological sense of community (PSC) makes the greatest contribution to thriving levels of college students. PSC is defined as the sense that members of a community experience when they discern that they belong, matter, and are valued and connected with others (McMillan & Chavis; Schreiner, “Thriving in College”). In 1995, Lounsbury & DeNeui created a psychological sense of community scale to measure PSC among college students that has been incorporated into the Thriving Quotient™ used in our study. Elkins, Forrester, & Noel-Elkins found that institutional involvement significantly increased college students’ sense of community and that a sense of belonging specifically influence students’ institutional commitment (Hausmann, Ye, et al.) and intentions to persist (Hausmann, Schofield, & Woods; Hausmann, Ye, et al.). Pritchard and Wilson posited that honors students are “no more likely to stay in school” than non-honors students without needed social support (19). Thus, given existing research, PSC is expected to significantly contribute to the thriving levels of honors students.

**Spirituality.** Over the last decade, scholars have turned greater attention to exploring the role of spirituality in the lives of college students (Astin, Astin, & Lindholm; Braskamp, Trautvetter, & Ward; Chickering, Dalton, & Stamm; Parks; Rockenbach & Mayhew). Most notably, Astin, Astin, & Lindholm’s hallmark longitudinal study examining the spiritual growth of over 100,000 college students found, among other factors, that college student spiritual development increases from freshman through junior year. Although scholars have not agreed on one definition, spirituality generally refers to students’ understanding of their life’s meaning and purpose in the world and how they are connected to others (Astin, Astin, & Lindholm; Lindholm, “Methodological”; Nash & Murray; Parks). Spirituality research shows correlations between the spiritual growth of college students and such success outcomes as thriving (McIntosh; Schreiner, Kammer, et al.), learning gains, satisfaction with the college experience, and deep learning (Astin, Astin, & Lindholm; Kuh & Gonyea), and an increased optimism that fosters psychological well-being (Koening, King, & Carson).
The late Sam Schuman, a distinguished leader within the National Collegiate Honors Council, noted, “While at college [students] are learning how to live their lives not just as intellectual creatures, but as whole, integrated human beings, with minds, spirits, and bodies” (5). Schuman contended that cultivating honors students’ spirits will also develop their intellects. Similarly, Astin, Astin, & Lindholm found that spiritual cultivation through service learning, study abroad, and interdisciplinary courses contributes to better grades, enhanced intellectual self-esteem, and higher educational aspirations. Consequently, spirituality is expected to contribute to the variation of honors student thriving in this study.

**Student-faculty interaction.** Research reveals that students who interact with faculty achieve higher GPAs (Kim & Sax) and greater satisfaction and learning gains (Kuh & Hu; Lundberg & Schreiner), persistence to degree (Astin, “Student Involvement”; Elkins, Forrester, & Noel-Elkins; Tinto), educational aspirations (Kim & Sax; Lohr), and academic, psychological, and personal growth (Strong). Furthermore, student-faculty interaction fosters a sense of community among students (Astin, *What Matters*; Cheng), and classroom discussions about meaning and purpose in life foster students’ spiritual growth (Astin, Astin, & Lindholm; Nash & Murray). Given that student-faculty interaction is a staple of honors education, it is anticipated to be a predictor of honors student thriving.

**Campus involvement.** An abundance of research has been published since Astin’s 1984 hallmark publication of “Student Involvement: A Development Theory for Higher Education,” which showed that campus involvement relates to engagement, persistence, a sense of belonging, and satisfaction with the college experience (Berger & Milem; Braxton, Hirschy, & McClendon; Kuh, Kinzie, et al.; Mayhew et al.; Reason; Strayhorn; Tinto; Wolf-Wendel, Ward, & Kinzie). Although studies have shown the correlation between campus involvement and persistence to degree, Emerick found a curvilinear relationship between a student’s grade point average and the number of roles in extracurricular activities in which the student engages. In other words, students earned higher GPAs when they were involved at manageable levels compared to those students who were either under- or over-involved. Scholars have documented honors students’ active involvement in a range of campus activities (Moon; Ory & Braskamp; Otero; Satterfield), including leadership positions (Cossentino). In a dissertation study, Cossentino found that honors students who were actively involved not only developed leadership, communication, and relationship-building skills but also were satisfied
with student life. Campus involvement is expected to be a predictor variable in honors student thriving.

**Major certainty.** Choosing a major is often a challenging experience for college students (Carduner, Padak, & Reynolds), and honors students frequently experience multipotentiality (Greene, “Gifted Adrift” and “Helping Build Lives”) or the ability to pursue myriad career options successfully, which can paralyze honors students (Gordon). Nevertheless, scholars have found that major certainty predicts intent to persist and reenrollment (Luke; Mayhew et al.). Furthermore, Chambliss & Takacs reported that students often were motivated to pursue a major introduced to them by a caring faculty member in an introductory course. Given the environment in which honors students learn and interact with faculty and honors advisors, major certainty is thought to be a predictor of honors student thriving.

**Entry and institutional characteristics.** Students enter college with myriad characteristics that have been demonstrated in the literature to have a positive impact on student success outcomes, including gender (Campbell & Fuqua), race and first-generation status (Pryor & Hurtado), and first-choice institution (Noel-Levitz). Among additional characteristics that served as control variables in this study are GPA, major certainty, and degree goal given that honors students generally earn higher GPAs than their counterparts (Marriner; Shushok, *Educating*) and tend to pursue graduate and professional education (Astin, “Student Involvement” 1984 and 1999; Sulaiman & Mohezar). Furthermore, living on campus contributes to honors students’ campus involvement (Wawrzynski, Madden, & Jensen), career goals (Shushok, “Student Outcomes”), interaction with faculty (Inkelas & Weisman), and sense of belonging (Campbell; Warwrzynski, Madden, & Jensen). Finally, Gansemertopf and Schuh found that institutional selectivity contributed to graduation and retention rates. Given that honors programs and colleges typically extend admissions to the highest achievers, we hypothesize that institutional selectivity will indirectly contribute to honors student thriving in this study.

To address identified gaps in the literature and to expand current literature on honors student wellbeing and thriving, the following research questions guided this study:

a. To what extent does a model of college student thriving fit a national sample of honors students? and

b. To what extent do campus involvement, spirituality, student-faculty interaction, and a psychological sense of community contribute to
honors student thriving during a semester, after controlling for demographic characteristics and pre-existing levels of thriving?

**METHOD**

The present study explored the relationships between a psychological sense of community, spirituality, student-faculty interaction, and campus involvement in college students participating in honors colleges or programs. Specifically, the study examined how these relationships contribute to the variation in honors student thriving at the end of an academic semester. Structural equation modeling (SEM), a confirmatory statistical technique, was employed as it allows researchers to simultaneously test multiple regression equations and explore direct, indirect, and total effects of variables within a proposed model (Byrne).

Based on an empirical review of the literature as well as the national baseline model of thriving (Schreiner, Kalinkewicz, et al.), a hypothesized path model was developed as depicted in Figure 1. The observed variables (i.e., those that can be directly measured) within this study are indicated by rectangles, whereas latent variables (i.e., constructs of observed variables) are depicted by ovals. Control variables include demographic variables and institutional characteristics as shown in the far-left column of the model.

**Figure 1. Hypothesized Path Model**
Instrument

The five constructs of thriving are measured through the Thriving Quotient (TQ), a valid and reliable instrument consisting of twenty-four items that investigate the aspects of college student experience empirically determined to be most predictive of academic success (Schreiner, “The “Thriving Quotient: A New Vision”; “From Surviving to Thriving”; “Thriving in College”). Confirmatory factor analysis indicates that thriving is a second-order factor consisting of the five scales described above ($\chi^2_{(114)} = 1093.83, p < .001, \text{CFI} = .954; \text{RMSEA} = .054$ with 90% confidence intervals from .052 to .058; Schreiner, Kalinkewicz et al.).

Participants and Procedures

After obtaining Institutional Review Board approval, we sent a recruiting email to the National Collegiate Honors Council (NCHC) listserv to solicit participation. Interested campus contacts then completed an institutional profile and intent to participate form. We sent an initial survey (i.e., Time 1) to these institutions in the early fall of 2013; this online survey was an honors student version of the Thriving Quotient™ instrument (Schreiner, 2013; survey available upon request). In mid-November 2013, we sent a shorter follow-up survey (i.e., Time 2) to the students who completed the survey during Time 1 and provided their email addresses. Time 1 yielded a 25% response rate, while 64% of participants completed the survey at Time 2. Final study participants included 945 undergraduate students enrolled during the fall 2013 semester from eleven honors programs across the United States, representing a variety of private and public institutions with differing Carnegie classifications. Table 1 outlines the demographic characteristics of the sample while Tables 2 and 3 demonstrate the institutional characteristics of the sample.

RESULTS

Using AMOS software, we created a visual diagram of the hypothesized model and employed Structural Equation Modeling (SEM) to test a proposed model of honors student thriving. How well a specified dataset fits the hypothesized model (see Figure 1) is determined by measuring goodness of fit statistics (Brown; Byrne). Statisticians recommend that the root mean square of approximation (RMSEA) (Browne & Cudeck) and comparative fit index (CFI) (Bentler) additionally be used to fully evaluate the model for
goodness-of-fit. The RMSEA index measures fit between the hypothesized model and the population to which it is being compared while the CFI

**TABLE 1. DEMOGRAPHIC CHARACTERISTICS OF PARTICIPANTS MEASURED AT TIME 1 (N = 945)**

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Class Level:</strong></td>
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</tr>
<tr>
<td>first-year</td>
<td>316</td>
<td>33.4%</td>
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<tr>
<td>sophomore</td>
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</tr>
<tr>
<td>junior</td>
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</tr>
<tr>
<td>senior</td>
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<td>23.4%</td>
</tr>
<tr>
<td>other (e.g., fifth-year senior)</td>
<td>15</td>
<td>1.6%</td>
</tr>
<tr>
<td>First Gen</td>
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<td>10.9%</td>
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<tr>
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<td>bachelor’s degree</td>
<td>163</td>
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<tr>
<td>teaching credential</td>
<td>21</td>
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<td>master’s degree</td>
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<tr>
<td>doctorate</td>
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<tr>
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<td><strong>Female</strong></td>
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<td>White (Caucasian)</td>
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<tr>
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<tr>
<td>mostly A’s and B’s</td>
<td>124</td>
<td>13.1%</td>
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<tr>
<td>mostly B’s</td>
<td>8</td>
<td>0.8%</td>
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<tr>
<td><strong>Institutional Selectivity:</strong></td>
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<td>open to all with high school diploma or equivalent</td>
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<td>13.1%</td>
</tr>
<tr>
<td>majority of students admitted from top 50% of high school graduating class</td>
<td>117</td>
<td>12.4%</td>
</tr>
<tr>
<td>majority of students admitted from top 25% of high school graduating class</td>
<td>324</td>
<td>34.3%</td>
</tr>
<tr>
<td>majority of students admitted from top 10% of high school graduating class</td>
<td>380</td>
<td>40.2%</td>
</tr>
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</table>
compares the model with the null model, which assumes that no correlations exist among variables within the model (Byrne). RMSEA values range between 0 (indicating exact fit) to 1 (suggesting poor fit); values with .06 or lower indicate good fit (Hu & Bentler). CFI values also range from 0 (indicating poor fit) to 1 (indicating perfect fit); scholars recommend a value close to .95 be used to determine good fit (Hu & Bentler). However, CFI values below .95 should be evaluated with RMSEA values to determine acceptable model fit.

**Table 2. Institutional Characteristics of Participating Institutions (N = 11)**

<table>
<thead>
<tr>
<th>Institutional Variable</th>
<th>Institution</th>
<th>Honors Program</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Undergraduate FTE</td>
<td>14,079.00</td>
<td>12,559.24</td>
</tr>
<tr>
<td>Percentage of Caucasians</td>
<td>61.42</td>
<td>33.23</td>
</tr>
<tr>
<td>Percentage of Females</td>
<td>54.20</td>
<td>6.45</td>
</tr>
<tr>
<td>Percentage Living on Campus</td>
<td>34.30</td>
<td>22.47</td>
</tr>
<tr>
<td>Average SAT/ACT Score</td>
<td>24.09</td>
<td>1.50</td>
</tr>
<tr>
<td>Average High School GPA</td>
<td>3.37</td>
<td>0.30</td>
</tr>
<tr>
<td>Admissions Selectivity:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avg/Min GPA</td>
<td>2.68</td>
<td>0.79</td>
</tr>
<tr>
<td>Avg/Min SAT/ACT Score</td>
<td>23.05</td>
<td>3.95</td>
</tr>
</tbody>
</table>

**Note:** Data based on information provided as not all institutions provided responses to each item.

**Table 3. Carnegie Classification of Participating Institutions (N = 11)**

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associate’s-Public Suburban-serving Multicampus</td>
<td>1</td>
<td>9%</td>
</tr>
<tr>
<td>Master’s Colleges and Universities (medium programs)</td>
<td>3</td>
<td>27%</td>
</tr>
<tr>
<td>Master’s Colleges and Universities (larger programs)</td>
<td>2</td>
<td>18%</td>
</tr>
<tr>
<td>Doctorate-granting Research Universities (high research activity)</td>
<td>1</td>
<td>9%</td>
</tr>
<tr>
<td>Doctorate-granting Research Universities (very high research activity)</td>
<td>3</td>
<td>27%</td>
</tr>
<tr>
<td>Theological seminaries, Bible colleges, and other faith-related institutions</td>
<td>1</td>
<td>9%</td>
</tr>
<tr>
<td>Public</td>
<td>8</td>
<td>72%</td>
</tr>
<tr>
<td>Private</td>
<td>3</td>
<td>27%</td>
</tr>
</tbody>
</table>
Confirmatory Factor Analysis

We conducted Confirmatory Factor Analysis (CFA) on all latent variables or those depicted by an oval (e.g., initial thriving sum, PSC, student-faculty interaction, and post-thriving sum) in the proposed model (Byrne). CFA indicates how and if latent variables fit statistically within a model (Brown; Byrne). The final fit statistics of all latent variables in the model are listed in Table 4.

Although we originally proposed spirituality as a latent variable in the hypothesized model, the CFA model for spirituality demonstrated poor fit despite a series of statistical adjustments. Therefore, we created a new observed variable, designated by a rectangle, for spirituality that is comprised of three items: “My spiritual or religious beliefs provide me with a sense of strength when life is difficult,” “I gain spiritual strength by trusting in a higher power beyond myself,” and “My spiritual or religious beliefs are the foundation of my approach to life.” After performing principal component analysis (PCA), spirituality maintained strong reliability at $\alpha = .97$.

Honors Model

Because a test of the hypothesized structural honors model indicated poor fit ($\chi^2(383) = 3391.803; p = .000; CFI = .660$) despite adjustments based on modification indices, we developed an alternative structural model of the pathways to honors student thriving. In this model, we removed the initial thriving variable given the short time gap (only ten weeks) between the initial and post-thriving administrations of the survey instrument as well as the high correlations between the initial thriving sum and post-thriving sum variables. We also removed demographic and institutional variables with low variance (i.e., gender, generation status, high school grades, institutional selectivity, and race/ethnicity) and applied additional modification indices to further improve the fit, resulting in a new structural model of honors student thriving.

Table 4. CFA Final Goodness of Fit Statistics for Latent Constructs

<table>
<thead>
<tr>
<th>Latent Construct</th>
<th>CMIN ($\chi^2$)</th>
<th>df</th>
<th>p</th>
<th>CFI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Thriving Sum</td>
<td>7.253</td>
<td>4</td>
<td>.123</td>
<td>.995</td>
<td>.029</td>
</tr>
<tr>
<td>PSC</td>
<td>8.659</td>
<td>2</td>
<td>.014</td>
<td>.995</td>
<td>.059</td>
</tr>
<tr>
<td>Student-Faculty Interaction</td>
<td>15.648</td>
<td>6</td>
<td>.016</td>
<td>.995</td>
<td>.041</td>
</tr>
<tr>
<td>Post Thriving Sum</td>
<td>8.194</td>
<td>4</td>
<td>.085</td>
<td>.994</td>
<td>.033</td>
</tr>
</tbody>
</table>
that has a relatively acceptable level of fit to the total sample ($\chi^2_{(173)} = 711.721; p < .000; \text{CFI} = .895; \text{and RMSEA} = .057$). The model explains 60% of the variance in honors students’ thriving levels at the end of the fall 2013 semester. Figure 2 shows the pictorial representation of the model that indicates the specific pathways to honors student thriving, and Table 5 captures the total, direct, and indirect effects of the variables within the model. The next section explains the model in more detail, including factors that contributed directly and indirectly to thriving.

**Figure 2. Structural Regression Honors Student Thriving Alternative Model**

**Table 5. Standardized Indirect, Direct, and Total Effects on Honors Student Thriving**

<table>
<thead>
<tr>
<th>Exogenous Variable</th>
<th>Direct</th>
<th>Indirect</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSC</td>
<td>.631</td>
<td>.000</td>
<td>.631</td>
</tr>
<tr>
<td>Campus Involvement</td>
<td>.231</td>
<td>.179</td>
<td>.409</td>
</tr>
<tr>
<td>Student-faculty Interaction</td>
<td>.099</td>
<td>.107</td>
<td>.206</td>
</tr>
<tr>
<td>Spirituality</td>
<td>.170</td>
<td>.000</td>
<td>.170</td>
</tr>
<tr>
<td>Majorsure</td>
<td>.000</td>
<td>.086</td>
<td>.086</td>
</tr>
<tr>
<td>On Campus</td>
<td>.000</td>
<td>.026</td>
<td>.026</td>
</tr>
<tr>
<td>Degree Goal</td>
<td>.000</td>
<td>.022</td>
<td>.022</td>
</tr>
<tr>
<td>First Choice</td>
<td>.000</td>
<td>.135</td>
<td>.135</td>
</tr>
</tbody>
</table>
DISCUSSION:
AN EMERGING PICTURE OF HONORS STUDENT THRIVING

A picture of honors student thriving begins to emerge from our study. We now explore honors student thriving levels as well as pathways to honors student thriving and how to shape them.

Honors Student Thriving Levels

The results of our study indicate that the overall thriving levels of honors students are not significantly different from traditional students ($M = 4.59$, $SD = .55$ for honors students, $M = 4.61$, $SD = .67$ for traditional students). However, an examination of the scale scores of honors students’ thriving revealed that honors students are not consistently thriving in all areas and that their levels of Social Connectedness are not only significantly lower than their other scale scores but also are lower than the levels reported by traditional students.

Honors students reported the highest levels of thriving on the Academic Determination scale, which measures goal-setting, self-regulation of learning, investment of effort, management of time and resources, and leveraging one’s strengths to address academic challenges (Schreiner, “Thriving: Expanding”). On this scale, honors students differed most significantly from their peers. Honors students reported that they were confident they would reach their educational goals, knew how to apply their strengths to achieve academic success, and found ways to complete uninteresting assignments with excellence. However, they reported lower levels of being able to manage all the demands of college life. This finding reflects the observations of many honors educators (Cossentino; Moon; Satterfield) that honors students often take on challenging academic loads while simultaneously being involved in many campus activities. Consequently, honors students may feel overextended and overwhelmed with their many responsibilities. Because honors students often possess a strong work ethic and academic drive, it may be easy to assume that all is well with them (Dougherty; Harding); however, the remaining results show otherwise.

Honors students reported levels of engaged learning and diverse citizenship that were higher than seen in their peers, but the effect sizes were small. Schreiner & Louis define engaged learning as an investment of students’ time and energy in which students are present, actively involved, and highly engaged in their own learning. Engaged learners apply what they are learning...
in other classes and spheres of their lives (Schreiner, “The ‘Thriving Quo-
tient’” and “Thriving in College”). Honors students were most likely to agree
with the following two items on the engaged learning scale: (a) they felt they
were learning things that were personally worthwhile to them, and (b) they
found themselves thinking about what they were learning within and outside
of class.

However, honors students were less likely to agree that they could find
ways to apply what they were learning in class to other aspects of their lives
or that they felt energized by what they were learning in most of their classes.
These findings are congruent with previous studies that indicate that honors
students have a propensity for boredom (Slavin) and for focusing on grade
attainment to reach academic goals, such as gaining admission to the best
graduate and professional schools, rather than deep learning (Freyman).

Diverse citizenship is a desire to make a difference in others’ lives, the
community, and the world (Schreiner, “The ‘Thriving Quotient’” and “Thriv-
ing in College”), and honors students are often described as desiring to be
difference-makers (Otero; Piehl). Honors students scored moderately high
on the Diverse Citizenship scale and reported higher levels of Diverse Citi-
zension than their peers, but the effect size was small. This sample of honors
students agreed that it was important for them to make a difference in their
community; however, they were less likely to agree that they spent time mak-
ing a difference in others’ lives.

The Positive Perspective scores of honors students were no different
than those of their peers, both scores being moderate. The Positive Perspec-
tive scale measures students’ levels of optimism; those who score high view
their future with confidence, expect good things to happen to them, and
can reframe negative events into positive learning experiences (Schreiner,
“Thriving in College”). Although honors practitioners have described hon-
or students as optimistic (Klein; Otero), honors students in this study were
no more optimistic than other students. Honors students’ perfectionistic
tendencies (Speirs Neumeister, “Interpreting” and “Understanding”) may
impede their positive perspective and actually increase tendencies for anxi-
ety and depression (Flett & Hewitt) when not well-managed. Given some
honors students’ inclination toward stress, anxiety, and other mental health
issues, cultivating strategies to develop a positive perspective may aid their
psychological wellbeing. Researchers have found that an optimistic outlook
can lower depression and stress (Brissett et al.; Burris et al.) as well as lead to
increased psychological adjustment to college (Brissett et al.).
Honors students scored markedly lower on the Social Connectedness scale than on any other thriving scale. In “Thriving in College,” Schreiner defined Social Connectedness as “having good friends, being in relationship with others who listen to them, and feeling connected to others so that one is not lonely” (43). Although Social Connectedness scores are also the lowest scores in the traditional samples of college students (Schreiner, Kalinkewicz, et al.), honors students’ scores were significantly lower than their peers’, in contrast to the other scales in which honors students scored the same or higher than their peers. Honors students also displayed the greatest amount of variance on this scale, meaning that students’ perceptions differed more from one another on this scale than on any other. Responses to an open-ended item on the Thriving Quotient survey presented a wide range of responses to why honors students might not socially connect, including struggles with belonging and self-identity issues; personal issues rather than limited opportunities to socially connect through university programming; interpersonal conflicts with roommates or significant others; not feeling a sense of community within the residence hall; and focusing primarily on academics because of pressure to achieve a certain GPA to maintain scholarships. Therefore, Social Connectedness may be an area that needs to be developed more in some students than in others. Given that 38% of the sample were also first-year students during their first semester in college, they also may not have had enough time to forge friendships. Nonetheless, this aspect of honors students’ wellbeing deserves future attention because scholars have found that positive social connections correlate with retention and success (Chambliss & Takacs; Robbins et al.) as well as honors students’ perceptions of their own academic success (Walker).

**Pathways to Thriving in Honors Students**

Our findings suggest that the pathways to thriving are different for honors students than for samples of traditional college students. Although the measurement model of honors student thriving is the same as the national baseline model (Schreiner, Kalinkewicz, et al.), i.e., conceptualization of thriving remains the same across these samples, the structural model did not fit the honors student sample collected in this study. The primary reason for this difference lies in the demographic characteristics of the honors students in this sample, who were more homogenous than the national sample of traditional students; they were predominantly White and female, with less than 11% identifying as first-generation students. Furthermore, high school
grades contributed little to the model because high grades are a prerequisite to entrance to the selective learning environments of an honors program or college.

The second way the structural model differed for honors students is that campus involvement contributed more powerfully to the variation of thriving among honors students than the traditional sample of undergraduates. In the honors model, campus involvement directly contributed to thriving whereas it only indirectly contributed in the sample of traditional college students (Schreiner, Kalinkewicz, et al.). Honors students at all class levels reported higher levels of involvement in campus leadership activities, student organizations, and community service than the traditional sample, and this involvement was a more significant pathway to their thriving in college. Subsequently, honors students who were involved in campus activities perceived a significantly stronger sense of community on campus and reported higher levels of spirituality than students in the baseline model.

These data seem to reflect that, as established in the literature, campus involvement fosters college students’ sense of community (Elkins et al.; NSSE; Strayhorn). Through campus activities, honors students connect and collaborate with others on campus, including peers, faculty, and other campus personnel, which can foster feelings of belonging and membership. Through their contributions, they feel that they matter, that they are valued, and that they are part of a community that is greater than themselves. (Please note that campus involvement broadly captured engagement in university activities, which likely included honors activities, but the instrument did not measure specific involvement in honors activities.)

Furthermore, campus involvement is significantly related to honors students’ spirituality and levels of thriving. As a reminder, spirituality includes three items: “My spiritual or religious beliefs provide me with a sense of strength when life is difficult”; “I gain spiritual strength by trusting in a higher power beyond myself,” and “My spiritual or religious beliefs are the foundation of my approach to life.” Scholars have found that engagement in co-curricular activities and engagement with peers can influence college students’ spirituality, consequently improving GPA, educational aspirations, and satisfaction with the college experience (Astin, Astin, and Lindholm; Braskamp et al.; Dalton, “Career”). Similarly, honors students who participated in student organizations and community service reported higher levels of spirituality and overall levels of thriving in this study. Consequently, the relationship between spirituality and honors student thriving is worthy of continued attention.
Third, student-faculty interaction did not contribute as strongly to the variation in honors student thriving as it did in the baseline model (Schreiner, Kalinkewicz, et al.). Although student-faculty interaction is a critical component of the honors student model, honors students did not report interactions with faculty as frequently as the sample of traditional undergraduate students, which is surprising given that student-faculty interaction is a hallmark of honors education (NCHC). This finding may be a consequence of several factors, including that honors students may not perceive the need to interact with faculty as much as other students. Honors classes generally are smaller than traditional classes, often allowing for greater student-faculty interaction within the classroom (NCHC) and thus reducing the need for students to meet with faculty outside of the classroom. Honors students are also busy and, given all that they juggle, may not choose to make the time to meet with faculty. Student-faculty interaction contributed slightly less to honors students’ sense of community than in the traditional college model. Consequently, honors students who do not connect as frequently with faculty may be abdicating a key opportunity to heighten their sense of community and take full advantage of a pathway to help them thrive in college.

The fourth way the pathways to thriving differed for honors students was that living on campus directly contributed to honors students’ sense of community whereas it only indirectly contributed to a psychological sense of community through campus involvement in the baseline model. This finding may be a consequence of a large percentage of honors students in honors living-learning communities, which are specifically designed to bolster a sense of community (Moon; Soldner et al.; Wawrzynski et al.).

Finally, students’ level of certainty about their major contributed less to honors students’ PSC than in the baseline model. In our sample, 80% of honors students reported being sure or very sure of their major, closely mirroring the percentage of traditional undergraduates. Like graduate students who establish their sense of community more through affiliation with their graduate program than their campus (Petridis & Schreiner), major certainty possibly contributes less to the variation in honors students’ sense of community on campus because their primary affiliations and identity are through the honors program or college rather than through a particular major.

**Shaping Honors Student Thriving**

A key way to shape honors student thriving may be through the pathways that contribute most significantly to their variation in thriving scores. These pathways are categorized into campus experiences and student characteristics.
Campus Experiences

According to our findings, honors students’ thriving is fostered primarily through their college experiences. Campus experiences include a psychological sense of community (PSC), campus involvement, student-faculty interaction, and living on campus.

Psychological sense of community. Campus experiences collectively influence honors students’ perception of their psychological sense of community (PSC), which is the most significant contributor to the variation in their levels of thriving. PSC is the perception that one matters, belongs, is connected, and makes a difference within a given community (McMillan & Chavis); experiencing a strong sense of community on campus propels college students’ institutional commitment and persistence (Hausmann et al.). Honors students in our study reported levels of PSC that were significantly greater than what their peers reported, with nearly 81% reporting that they felt proud of their institution, almost 78% reporting that they felt they belonged, nearly 69% agreeing that being a student at their institution filled an important need in their lives, and almost 60% reporting a strong sense of community on their campus.

According to these findings, this sample of honors students experienced a strong psychological sense of community themselves but did not perceive as strong a sense of community for the campus as a whole. Perhaps this result reflects the fact that many honors students participate in honors colleges or programs that are intentionally designed to foster a sense of community (Austin; Wawrzynski et al.). Honors students are often drawn to a learning environment where they expect to fit in with colleagues who share similar values, goals, and interests (Clauss; Ford; Giazzoni & Hilberg; Hammond et al.; Shushok, “Student Outcomes”). Because PSC seems to be the fuel for honors student thriving, students who do not perceive a strong PSC could be at risk for potential departure from the institution (Pritchard & Wilson).

Campus involvement. Another direct contributor to the variance in honors student thriving and indirect contributor through PSC is campus involvement. This pathway to thriving is more powerful for honors students than for their peers. In 1999, Astin defined campus involvement as “energy” (518) that students expend by engaging in activities and organizations on campus. Involvement in campus activities generally, rather than in any specific type of activity including honors, seems to matter most to honors student thriving. Honors students reported greater levels of involvement on campus than did their peers and were more likely to be involved in student...
organizations (55%), campus events and activities (37%), leadership of student organizations (32%), and community service (28%). This greater campus involvement among honors students is well-supported by the literature (Cossentino; Moon; Satterfield).

Campus involvement contributes to honors student thriving in meaningful ways: they engage more deeply in their learning; hone problem solving skills; boost their self-confidence in their abilities to apply their strengths, reach their goals, and effectively juggle the competing demands of college life; experience opportunities to make a difference and build their confidence in knowing that they can make a difference; see life more positively and optimistically; and socially connect and collaborate with others on campus. Furthermore, experiences that engage interaction with others helps to bolster honors students’ PSC. Involvement in activities on a college or university campus has been demonstrated to foster college students’ sense of community (Braskamp et al.; Elkins et al.; NSSE; Strayhorn). Consequently, the more that honors students engage in activities on their respective campuses, the greater their perceptions of PSC within a community in which they are learning and developing as leaders and scholars.

**Student-faculty interaction.** Contrary to expectations, student-faculty interaction did not contribute as powerfully in the variance of honors student thriving as it does for other types of students. Additionally, our sample of honors students reported interacting with faculty less frequently than their traditional peers did. Although more than half reported frequently emailing, texting, or Facebooking faculty, only a third reported frequently meeting with their faculty during office hours, discussing career and graduate school plans, or socializing outside of class, and less than a fourth reported frequently meeting with their academic or faculty advisor. Although this finding may reflect a characteristic of this current Millennial generation, in which technology is their preferred mode of communication (Jonas-Dwyer & Pospisil), honors students who interacted more frequently with faculty in person reported higher levels of PSC and thriving. These students also reported higher levels of social connectedness, suggesting that through their interaction with faculty they experienced social support that enabled them to engage more in college life and to feel that they mattered and were part of the campus community.

**Living on campus.** The final pathway to thriving is living on campus, primarily contributing to PSC, which then indirectly contributed to thriving. Most honors students who lived on campus reported higher levels of PSC and felt that they belonged, perceived a strong sense of community on
campus, and were proud of the institution they were attending. Other scholars have also found that living on campus positively contributed to honors students’ sense of belonging (Campbell; Wawrzynski et al.).

**Student Characteristics**

Honors students’ thriving is also shaped by distinct behaviors or decision-making processes that contribute to the variation in thriving. These characteristics include spirituality, major certainty, degree goal, and first choice.

**Spirituality.** Honors students were significantly less spiritual ($M = 4.12$) than the national sample ($M = 4.75$) (Schreiner, Kalinkewicz, et al.) and demonstrated the greatest variation in their responses of all their scores in this study ($SD = 1.74$). However, those students who reported high levels of spirituality were more likely to thrive. High-spirituality honors students found their spiritual or religious beliefs to be a source of strength when they perceived life as difficult and to serve as a driver in the pursuit of academic goals and deep engagement in learning; they experienced the world with greater optimism, and served their communities at higher levels than those students for whom spirituality was not as critical. Scholars have found that students’ faith serves as “an anchor for students’ engagement in their learning and their overall success” in a sequential, explanatory, mixed-methods study of students at faith-based institutions (Derrico, Tharp, & Schreiner, 16–17). Furthermore, researchers have shown the relationship between spirituality and maintaining equanimity (Astin, Astin, and Lindholm; Dalton, “The Place of Spirituality”; Derrico, Tharp, & Schreiner). Although most students in our study attended public institutions, our findings suggest that some honors students consider their spiritual nature a critical key to their success. Scholars in the last decade have advocated for cultivating the role of spirituality in college student success (Astin, Astin, and Lindholm; Braskamp, et al.; Chickering, et al.; Lindholm, “Methodological”; Nash & Murray; Parks; Rockenbach & Meyhew). Similarly, Schuman called for the cultivation of not only honors students’ intellects but their spirits as well.

**Major certainty.** How sure students were about their major indirectly contributed to the variance in thriving through PSC and student-faculty interaction variables. In this sample, 80% of honors students were sure or very sure of their major. Those who were sure experienced higher levels of a sense of community, interacted more with faculty outside of class, and were more satisfied with those interactions, which in turn fueled their academic
determination and engaged learning. Thus, major certainty contributes to thriving because it correlates with more frequent and rewarding interactions with faculty and a stronger sense of community.

**Degree goal and first choice of institution.** Also contributing indirectly to the variation in honors student thriving is students’ degree aspirations and whether they are enrolled in their first-choice institution. Honors students who indicated goals of pursuing graduate or professional school interacted with faculty more frequently, which contributed to their level of thriving. In our study, over 80% of honors students intended to pursue an advanced degree compared to only 66% in the national sample (Schreiner, Kalinkewicz, et al.). Students who were in their first-choice institution were significantly more likely to thrive because of their greater sense of community on campus. Admission to the honors program may have been a motivator for selecting the institution as their first choice. Chancey has noted that honors students may perceive that participating in an honors program is more prestigious and thus a better academic fit for them. Research on a psychological sense of community on campus has indicated that when PSC is fostered, the institution can become the right fit even if initially it was not a student’s first choice, and students can subsequently thrive in that environment (Schreiner, “Thriving: Expanding”).

In sum, our results indicate key pathways to helping honors students thrive and confirm what other scholars have reported: that what appears to matter most to student success and wellbeing is what happens to students while they are in college (Mayhew et al.). Honors students who thrive are primarily those who establish a strong sense of community on campus through their involvement with faculty and in campus life. Those who are sure of their major, intend to pursue an advanced degree, rely on their spirituality as source of meaning and strength, and/or are enrolled at their first-choice institution are also more likely to thrive.

**LIMITATIONS**

Although our study provides an initial picture of honors student thriving, several limitations are worth noting. First, despite the diversity of institutions and Carnegie institutional classifications represented, the student sample was comprised mostly of first-year White females. Consequently, this sample limits a fuller understanding of how thriving occurs among all honors students, including males and students of color, across the span of the college experience. Second, because of the short amount of time (approximately ten weeks)
between each administration of the Thriving Quotient survey, no significant change between initial and post-thriving was evident. A longer longitudinal study might have provided additional insights into changes in honors student thriving. Third, the study design is correlational in nature, which inherently limits conclusions about causation.

RECOMMENDATIONS FOR PRACTICE

Given the findings of our study, we propose several key recommendations for faculty and other educators. The findings of the study may assist stewards and champions of honors education to establish an environment on their campuses in which honors students can thrive and make the most of their college experience.

Recommendation 1: Support Honors Students’ Mental and Social Wellbeing

Our findings revealed that many honors students struggle with balancing priorities and managing their time and stress levels. Because many honors students are focused on earning a high GPA to gain admission to a top graduate or professional school, they sometimes sacrifice their physical and mental wellbeing in pursuit of their academic endeavors. Mental health issues, including anxiety and depression, are all too common among this generation of college students (Gruttadaro & Crudo). Honors faculty and staff need to establish proactive relationships with the campus counseling center liaison to offer honors student programming focused on proactive, positive, psychology-based prevention and outreach rather than relying solely on treatment once a disorder is manifested (Schreiner, Hulme, et al.; Wolff, Barclay, & Buning). Part of this outreach may include training sessions for honors faculty, staff, and peer mentors as well as preventive programming to enhance honors students’ wellbeing.

Recommendation 2: Encourage Honors Students to Get Selectively Involved

Because honors students tend to be easily overwhelmed by the demands of college life and often take on too much, helping them intentionally select activities that align with their interests, goals, and values can be helpful (Schreiner, Slavin Miller, et al.). Furthermore, Dalton suggested in “Career and Calling” that students “link head and heart” (22), meaning that students
should be encouraged to engage in activities that connect to their sense of purpose or calling. Faculty may also assist students by developing collaborative class projects that enable them to engage with other members of the campus or local community (Nash & Murray) and encouraging them to participate in activities that will be reported on a co-curricular transcript (Montijo), which can be used in advising appointments and referenced in employment interviews.

**Recommendation 3: Engage Faculty in Appreciative Advising with Honors Students**

Although student-faculty interaction may not have contributed as strongly as one might anticipate to the variation in the model of honors student thriving, we contend that faculty do critically contribute to honors student thriving. Not only do faculty have the privilege of helping honors students learn about course content or develop academic acumen, but they also have the potential to foster students’ learning about themselves (Nash & Murray; Parks). Through interactions outside the classroom, such as advising, honors students can interact meaningfully with faculty. One high-impact advising practice is Appreciative Advising, characterized by intentionally affirming and cultivating the best within students (Bloom, Hutson, & He); through application of this theory-to-practice framework, faculty can help students identify their strengths, passions, interests, and goals, using the conversation to connect students to opportunities such as undergraduate research, study abroad, internships, graduate and professional school, or career options while tying these activities to their purpose or calling. Our findings indicate that honors students may not be taking full advantage of personal engagement with faculty, frequently opting to communicate virtually instead. Faculty can develop strategies such as intentionally conversing with students before or after class or requiring that students meet with them in person during the semester to encourage positive student-faculty interaction and to nurture thriving.

**Recommendation 4: Leverage Spirituality as a Potential Pathway to Thriving**

Sam Schuman argued that honors students’ spirits should not be neglected if one of the main charges of honors education is to develop the next generation of social leaders. Within our study, spirituality proved to be a powerful predictor of every aspect of honors student thriving. Although
the cultivation of honors students’ spiritual lives has largely been ignored (Schuman), research overwhelmingly supports the benefits of acknowledging students’ spiritual lives (Astin, Astin, & Lindholm; Braskamp et al.; Dalton, “Integrating Spirit” and “The Place of Spirituality”; McIntosh; Parks; Rockenbach & Mayhew). Among honors students, spirituality can be intentionally leveraged in the residence halls, the classroom, the campus, and outside communities. For example, an honors living-learning community can adopt the theme of spirituality as a topic of conversation in which students exchange their ideas and approaches on how their spiritual lives influence their college experiences and help them discover their meaning and purpose (Lindholm, “Methodological Overview”; Nash & Murray). Faculty may also engage in conversations within the classroom about meaning and purpose and how students can connect the course content to their future goals (Nash & Murray). In “Career and Calling,” Dalton explained: “College students who are able to continue their spiritual development in college and to integrate their deepest beliefs and passions with career and life plans are able to make the transition from college to work and life in community satisfyingly and successfully” (23–24).

Finally, using Parks’s “hearth, table, and commons” mentoring model (201), members of the campus community can intentionally design programming to foster the spiritual lives of students. The hearth is a place for reflection and conversation; therefore, designated spaces on campus such as library reading rooms or community living rooms may be designated as spiritual development zones where students can be encouraged to reflect, pray, or meditate. The table is a place for people to eat and commune, so faculty and administrators may sponsor brownbag lunches or potluck dinners in their homes to encourage conversations about meaning and purpose. Finally, the commons is a space where people frequently convene; within such spaces, conversation starters might be displayed to encourage students to discuss spiritual matters.

CONCLUSION

The findings of our study illuminated pathways to honors student thriving. Our recommendations are offered as a starting point to assist educators in acknowledging honors students as whole beings for whom intentional college experiences and programming may help pave the way to make the most of their college years and not just to survive but to thrive.
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Transformative Learning: Lessons from First-Semester Honors Narratives

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INTRODUCTION

Although the National Collegiate Honors Council has clearly articulated the common characteristics of “fully developed” honors programs and colleges, these elements describe the structures and processes that frame honors education but do not directly describe the intended honors outcomes for student learners (Spurrier). Implicitly, however, the intended outcomes of distinct curricula, smaller course sizes, honors living communities, international programming, capstone or thesis requirements, and any number of other innovative forms of pedagogy are qualitatively different from faster degree completion, better jobs, or higher recognition at graduation. When intentionally directed, honors education promotes the full transformation of the student (Mihelich, Storrs, & Pellet).

Both the potential and challenges inherent in promoting transformative learning have a long and rich tradition in the scholarship of pedagogy, with different theorists prioritizing distinct features of the process and
targeting different outcomes. Dewey, Freire, and Mezirow (in *Transformative Dimensions*), for instance, each argue—independent of the specifics of their models—that transformation is best accomplished when it is the explicit goal and attention is given to facilitating key learning processes. While honors programs may be well positioned to support these learning processes and while transformation may be an implicit goal of honors education, few honors mission statements frame learning goals in these terms (Bartelds, Drayer, & Wolfensberger; Camarena & Pauley).

Working from the premise that honors education is well-situated to make transformative learning a higher-order goal in an era of debates about learning outcomes and metrics of change (e.g., Digby), we examine the personal transformation experiences of first-semester honors students and explore how the intentional processes integrated into these experiences played a role in that transformation. To put this work in context, we first describe the transformative learning models and identify the intentional structures built into the first-semester honors experience.

**Transformative Learning Theory**

Mezirow originally developed his transformative learning theory from observation of adult learners returning to pursue higher education (*Education*). He suggested that adult learners might face challenges in adjusting to the demands of learning in the college classroom and experience “disorienting dilemmas” as they worked to integrate classroom learning with out-of-class demands. Scholars have found the theory also useful for studying emerging adults in higher education contexts (e.g., Doucet et al.). Like Mezirow’s adult learners, traditional college students adjusting to college-level coursework for the first time are encountering significant disruption caused by normative life events experienced during young adulthood. Since both adult learners and traditional college students are facing disorienting dilemmas in and out of the classroom, the other essential elements of the process of transformative learning—including real-world experiences, critical reflection, and critical discourse—should be similar for both (Mezirow, *Education* and “Transformative Learning”).

From this model, a key challenge for educators working to facilitate transformative outcomes is to intentionally connect learning in the classroom with structures to support the real-world, out-of-classroom disruptions that occur during young adulthood, including changes in close relationships (Keup) and expectations for university life that differ from reality (Kreig). Rather than
just providing information for students, the transformative learning model encourages disruption in the classroom through the integration of critical thought on ideas that reveal difficult truths applicable to the individual’s life. For example, educators can assist students in challenging social constructions of taken-for-granted ideas, embracing identity moratorium and the value of questioning personal meaning and purpose. By providing experiential opportunities that are intentionally structured to confront uncritically assimilated assumptions and expectations, instructors can help students develop the ability to think more critically about ideas presented in the classroom, about themselves, and about their place in the world (Dewey; Taylor & Cranton).

While engaging in real-world experiences is crucial, it must be paired with critical reflection and discourse in order to foster transformative learning (King). First, students should be actively involved in a process of critical reflection that includes examining, questioning, and revising perceptions and values that are relevant to their disequilibrium and lived experiences (Taylor & Cranton). Educators can structure their curricula to support students in this process, and they can also promote critical dialogue among students about the issues with which they are wrestling. Discourse is an important component of transformative learning as it enables students to test ideas with others and to understand that they are not alone in the process (Mezirow, *Education*). The power of discourse extends beyond the classroom as students engage in conversations with family, partners, and others who may encourage or discourage their transformative learning process.

Disorienting dilemmas, real-world experiences, critical reflection, and critical discourse give students the tools to shift their frames of reference and ultimately experience transformative outcomes (Mezirow, “Transformative Learning”). Building on the transformative learning theory of Mezirow and others, Taylor and Cranton summarize three domains in which transformative outcomes occur. The first is the understanding that universal truths may not exist and that humans construct meaning based on perceptions and experiences. Individuals who are transformed examine those perceptions more critically and reevaluate their notions about absolute truth and knowledge. Second, transformation can result in the realization that one is one’s own person, autonomous and capable of making personal decisions, and in recognition of one’s potential for growth and development. A third transformative outcome is being more critical of society and challenging systems of racism, economic inequity, and other social inequalities in an effort to change them. This outcome includes the realization that dominant ideology is not natural or
inevitable, and it can lead to a new desire to make a positive difference (Taylor & Cranton).

As these outcomes indicate, transformative learning is a theory about deep learning that goes beyond the content and knowledge of the typical classroom and results in the development of the whole person (Laird et al.). The learning goals conveyed in the three domains are consistent with what developmental theorists suggest is happening during this stage of a student’s development: maturing intellectually into more complex and critical thinkers (Perry), addressing the central crisis of identity vs. role confusion (Erikson), developing competence and autonomy, and forming new interpersonal relationships (Chickering). However, educators seeking to develop an appropriate structure for transformation need to realize that it can be an uncomfortable and risky experience for students at different levels of readiness for the process (Cranton; King).

The Honors Program at Central Michigan University

Central Michigan University (CMU) is a rural, residential university with approximately 27,000 students. The CMU Honors Program’s mission statement was designed to identify what honors education will provide (unique educational opportunities and experiences) while also stating its goals: “challenging students to aim higher and to achieve more academically, personally, and professionally for the greater good of our disciplines, our society, and our world.” The core values of the program provide the expectations for what honors learning should promote: a commitment to critical thought, scholarly inquiry, and creative expression; respect and appreciation for diverse peoples and ideas in a global society; establishment of high and meaningful standards for integrity and personal aspirations; and becoming an active citizen and prioritizing service for the greater good through both personal and professional paths.

All the primary honors structures in place to support this mission have been developed from best practices suggested in both the NCHC and First-Year Experience (FYE) literature and have been refined with assessment data, program review, and an external NCHC review. Key required components for all first-semester students include a summer orientation and reading assignment, a welcome dinner before the start of the semester, an honors orientation class, a small first-year honors seminar, and an honors residence hall. Each of these elements has been infused with processes that promote
transformative learning outcomes; and these processes and goals are made explicit to students from the start.

The summer reading assignment, for example, challenges students’ assumptions about the goals of honors education and indicates the need to make personal meaning of honors rather than accepting their unquestioned understanding of academic achievement. This reading leads into the welcome event, where students are introduced to critical thinking concepts and asked to wrestle with a discussion on epistemology, the nature of intellectual truths, and the role of privilege and power in shaping students’ paths to honors. From small group discussions about who will volunteer to complete the class without ever seeing their grades on assignments (the No Grade Plan) to the introduction of the Personal Development Project (PDP), which dares students to stretch while seeking new life experiences in their campus community (Camarena, Lung, & Saltarelli; Camarena, Argall, Kloha, Shepard, & Stoll), the welcome dinner discussions and “Director’s first lecture” create disorientation and introduce conceptual tools for students to make meaning of the disruptions that occur in their transition to college. In HON 100 the following week, students are encouraged to embrace identity crisis and moratorium as goals more important than maintaining a 4.0 GPA. Across the rest of the semester, readings, reflections, and classroom activities in HON 100 challenge students to think about how honors core values might have personal meaning in ways that are different from the habitual thoughts most high-achieving students bring to the college classroom in their first semester. Because all first-year students are in the same HON 100 classroom and engaged in the same discussions, they share a common reference point for out-of-class dialogue.

To further foster critical reflection on issues relevant to students’ lives, each of the first-year seminars taken as an HON 100 co-requisite is focused around a different complex, real-world issue with an emphasis on critical exploration and not on finding a single correct solution. Because all first-year students are required to live in the same residence hall, discussions from HON 100 and the first-year seminars are brought back to students’ meals and rooms where some students coordinate PDP explorations with hall-mates who are members of their HON 100 small groups. Because sophomores in the hall have already been through this same honors experience, with many serving as HON 100 TAs, they are excited to promote ongoing dialogue and support their peers’ explorations. Across all these activities and associated readings and lectures, first-semester students are writing reflections that
document what they have been doing experientially while also making personal meaning about how these in- and out-of-class lessons provide new tools for enlightenment and empowerment.

**The Current Study**

Although a strong and growing body of literature addresses the transition to college, the majority of this work focuses on retention and persistence for those facing challenges while relatively little work focuses on those thriving in their new context (e.g., Holliday; Robinson). Our specific focus is students who are positively transformed during their first semester in college. While the processes linked to transformative learning might be applicable to all students’ first-year experience, we examine the application of intentional programming efforts in an honors setting as reflected in students’ reported experiences in honors.

Because transformative learning is primarily an internal experience of making meaning, a narrative approach was adopted for this project. A key premise of narrative research in the social science tradition is that the stories people tell about their lived experiences, while they might not always be factually true, are valid reflections of how individuals make meaning of their subjective experiences (Polkinghorne). Collecting and analyzing students’ stories, therefore, provides a glimpse into the interior experience of transformation; what led to their transformation and what was transformed are left up to students to define in their own words.

**Research Goals**

The primary purpose of the current study was to explore the nature and process of transformation as described by students in their stories of first-semester experiences and to compare these processes to those outlined in transformative learning models in order to examine the degree to which they correlate. The secondary goal was to investigate how honors students spontaneously described the role of honors programming that had been put into place with the goal of promoting transformative outcomes. This process-oriented assessment is useful in highlighting which of the strategic elements of the program are perceived to be most effective by students who believe they have been transformed.
**METHOD**

**Participants**

Participants for this study were selected using a nomination procedure targeting students who were “transformed by [their] experiences during [their] first semester at CMU.” All 155 first-year honors students received an email invitation from the honors program inviting them to participate if they believed they had been transformed while all honors program professional staff and HON 100 teaching assistants were simultaneously asked to offer names of students they believed met this criterion. Transformation was purposely not defined in this invitation, but all of the nominated students were given additional information and invited to participate.

This process of nomination by self, TA, and honors program staff yielded a total of 41 potential students for the study. Of these, 22 students agreed to participate in interviews: 27% were self-nominated, and 73% were nominated by others, with little overlap between the two sets of nominations. This process builds on Doucet et al.’s 2013 study by triangulating the sample and giving students an extra opportunity to reflect on whether they had, in fact, been transformed during the first semester even if they had not previously thought of their experience in these terms.

Consistent with the demographic characteristics of the first-year honors cohort, participants were 18–19 years old (X=18.45), 77% female (55% campus wide), and 82% Caucasian (76% campus wide). Additionally, 59% reported being from rural communities, and two identified as first-generation college students (~20% of the first-year honors class identify as first-generation).

**Procedures**

Students agreed to participate through a pre-screening online questionnaire that included additional information about the project, and then one of two trained student interviewers contacted each student to schedule a one-on-one interview. All the student interviewers had previously served as undergraduate teaching assistants for HON 100, and they were assigned students to interview with whom they had not worked personally.

The interviews were semi-structured and designed to provide participants with an opportunity to tell their personal stories without interference from the interviewer. (See Appendix for the full interview protocol.) After opening
sections to gather background data, students were prompted with: “Starting at the beginning from when you first came to CMU until now, please tell us the story of how you have been transformed across your first semester here at CMU.” Interviewers were instructed to avoid directed questions during this section of the interview and instead to rely on active listening prompts to encourage additional details on events, activities, and feelings. After this opening section, the participants were given a series of follow-up questions to check for information that may not have been clear in their open narrative. Sample follow-up questions included: “What about you specifically has been transformed?” “Why do you think you may have been transformed to a greater degree than others?” and “What recommendations do you have for the Honors Program as a result of your experiences?”

Interviews generally ranged in length from forty to sixty minutes although a small number of interviews exceeded an hour. To address Institutional Review Board policies, interviews were not audio-recorded; however, the interviewers were trained to take careful notes and to include quotations of central phrases in the students’ own words. In addition to taking thorough notes throughout the interviews, the interviewers were tasked with writing a narrative summary of participants’ stories shortly after the interviews were completed. Both the notes and the summary narratives were used in the data analysis.

Analysis

At the most basic level, a content analysis identified how often students specifically referred to elements of the honors program as part of their transformative experience. Categories for this analysis were generated from the data, and labels were tested in discussions with the research team. After final categories had been created, two independent raters coded all of the responses that noted anything honors-related. The kappa for participant references to categories of the honors program was .85, suggesting that these categories were easily distinguishable within the data although the narrative prompt about transformation did not specifically ask about honors.

At a higher conceptual level, the full data set was subject to a more interpretive analysis that identified the types of narrative themes emerging within each interview regarding students’ transformative processes and outcomes and comparing them with the transformative learning models that were a guiding framework for this study. In a grounded theory approach to data reduction (Strauss), a series of memos and codes were used to categorize
types of experiences reported in the interviews. Beginning with quotations from the interviews and in vivo phrases from the narratives, each member of the research team developed tentative codes that were then tested in group meeting discussions to enhance validity and ensure the dependability of the coding process (Polkinghorne). This iterative process of interviewing, coding, and discussion proceeded until members of the team agreed that final categories were clear and valid representations of the data.

For this holistic level of analysis, the coding began at the level of individual events and experiences, with codes being developed for key elements of the plots in the personal stories (Polkinghorne) and with special attention to what, according to students, was being transformed and what the process of transformation was like. During this process of comparison, codes across multiple participants began to cluster into categories, with refinements and revisions continuing until all of the data had been coded. As a final stage in this analysis, each student narrative was grouped with others where core elements clustered into overlapping but distinguishable overall stories of transformation.

RESULTS

Honors as Context for Transformation

The identification of honors structures and activities in the content analysis of students’ narratives of transformation is especially significant because the narrative prompt and the interviewers themselves did not initially mention or ask about honors so that references to honors would be spontaneous in student reports. In fact, the content analysis of honors experience was begun as a secondary part of the analysis only after it was clear that all the students were making consistent and direct reference to honors programming structures in their stories of transformation. Because the content analysis has more concrete outcomes and sets the context for what students said were the triggers for transformation, these results are presented first. Rather than presenting the identified codes in order of frequency, we grouped together the categories identified with related items as they would have emerged in the data coding decision tree (Table 1).

Of the participants, 14% talked about the honors welcome event. This activity was significant because it was designed to serve as the formal introduction to HON 100 and to all the pieces of the honors experience: the “Director’s first lecture,” where transformative learning concepts were
Introduced and put into action; small TA groups in HON 100 for extra guidance and peer support; and the personal development project that would be formally posted before the first HON 100 class.

Consistent with this introduction, participants’ stories noted the HON 100 class as a whole, the director’s lectures, the PDP, and the TA and TA groups. The special significance of the PDP as a challenge-by-choice experiential project was indicated by its identification in 68% of the stories. Whether students referenced the value of the project overall or the impact of a specific activity completed for the project, this assignment was the single most noted catalyst for transformation in the class. Overall, across these specific codes, 87% of student narratives made explicit reference to HON 100 in some fashion, with most stories including codes across multiple categories and connecting HON 100 to other elements of students’ narratives of transformation.

Beyond HON 100, 68% of the stories mentioned other honors courses, including the critical thinking first-year seminars and departmental honors sections. Closely connected to in-class experiences, students noted interactions with the honors faculty and staff outside of the classroom 18% of the time.

References to the honors community appeared in 37% of the students’ narratives. These comments included both descriptions of experiences with

**Table 1. Percentage of Honors Students Identifying Dimension of Honors in Narratives**

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Percent of Students</th>
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</thead>
<tbody>
<tr>
<td>Welcome Event</td>
<td>14%</td>
</tr>
<tr>
<td>Any HON 100 Dimension</td>
<td>87%</td>
</tr>
<tr>
<td>HON 100 (dimensions not specified)</td>
<td>64%</td>
</tr>
<tr>
<td>PDP</td>
<td>68%</td>
</tr>
<tr>
<td>Director Lectures</td>
<td>23%</td>
</tr>
<tr>
<td>TA &amp; TA Group</td>
<td>23%</td>
</tr>
<tr>
<td>Honors Classes (First-Year Critical Thinking Seminars and Departmental Honors)</td>
<td>68%</td>
</tr>
<tr>
<td>Honors Faculty</td>
<td>18%</td>
</tr>
<tr>
<td>Honors Community</td>
<td>37%</td>
</tr>
<tr>
<td>Honors Residence Hall</td>
<td>68%</td>
</tr>
<tr>
<td>Honors Experience (dimension not specified)</td>
<td>73%</td>
</tr>
</tbody>
</table>
specific honors student organizations and more general references to the honors community as a whole. Students more frequently mentioned the role of the social world within the honors residence hall, with 68% talking about the significance of this context for their transformation. Comments again made reference both to specific relationships and activities in the hall and to perceptions of the hall’s “special” character overall.

Finally, although most student narratives were explicit about specific dimensions of honors activities and resources in their stories of transformation, 73% of the students interviewed also made more general reference to honors culture or the “honors experience.” Although the codes were noted within each narrative as a separate item, it quickly became apparent that the codes were interdependent. For example, learning to embrace identity moratorium was described as a reference to HON 100 content, the PDP assignment, and supportive discussions in the residence hall.

**The Nature of Transformation**

From the start, the primary goal of this study was to explore how transformative learning models were reflected in students’ stories and how students made meaning of both transformative experiences and outcomes, whether related to honors or not. Although transformative learning principles were key to the development of pedagogic strategies and were part of the priming prior to analysis, specific questions about elements of these theoretical models were not directly tested. Rather, the grounded theory methods used for this section of the narrative analysis required the researchers to let the themes emerge on their own in the words and plots described by the students themselves. The analysis distinguished key elements of each story’s plot and yielded eight major narrative themes across all twenty-two students (see Table 2).

Consistent with the pattern of findings in the content analysis, repeated specific references to honors emerged as a central element of most students’ stories even though the goal of the analysis was not to feature honors. Although the eight themes that emerged from the data reflected elements of the transformative learning model, they did not replicate or group in the same way. The themes were independent enough that they could be identified, but they overlapped with each other and clustered around interwoven threads of challenge and push combined with relationships and support.
The Role of Challenge and Push

Many of the major narrative themes clustered around the idea of being challenged and pushed both by normative college adjustments and by expectations and activities from honors. As captured in Theme 3, 64% of students indicated that their initial transition to a new environment was a challenge and acted as a catalyst for change. For example, Student #1 was from an all-girls, private, faith-based high school and explained that she felt shocked when she had to adjust from a regimented schedule with uniforms and close social control to an environment with a great deal of freedom and encouragement to explore. Others were challenged when their expectations for the environment did not match reality in either academic demands or social integration and said that this mismatch pushed them to make adjustments leading to personal change.

In addition to being exposed to a new environment generally, Theme 7 reflects the special opportunity for growth that came from exposure to and interactions with others from diverse groups and backgrounds. For example, Student #4 described coming from a more privileged background in an

<table>
<thead>
<tr>
<th>Major Narrative Themes</th>
<th>Percent of Students</th>
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<tbody>
<tr>
<td>1. Encouragement to explore direction &amp; embrace change led to shifting priorities &amp; purpose in life</td>
<td>68%</td>
</tr>
<tr>
<td>2. Freedom from constraints prompted students to explore values &amp; pursue passions in process of developing independent identity</td>
<td>68%</td>
</tr>
<tr>
<td>3. Transition to new environment &amp; different expectations created contrast &amp; sparked change</td>
<td>64%</td>
</tr>
<tr>
<td>4. Confidence, competence, and comfort with self increased through overcoming challenges and forming support networks</td>
<td>50%</td>
</tr>
<tr>
<td>5. Relationships provided support, facilitated self-confidence &amp; acceptance, &amp; encouraged involvement</td>
<td>36%</td>
</tr>
<tr>
<td>6. Push to branch out and try new things stimulated greater openness to explore ideas &amp; stretch self</td>
<td>32%</td>
</tr>
<tr>
<td>7. Exposure to new people &amp; ideas facilitated new awareness of diversity &amp; privilege in society</td>
<td>32%</td>
</tr>
<tr>
<td>8. Director lectures promoted movement away from dualism to engage critical thought &amp; think about purpose of education</td>
<td>32%</td>
</tr>
</tbody>
</table>
affluent suburban community and found herself thinking about the extent of her privilege for the first time, and Student #2 said that her first-year honors seminar got her to think about inequality in new ways, inspired her to work on diversity initiatives within honors, and challenged her to alter dramatically her career and life goals. Rather than pointing to a class, Student #9 said that going vegan for two weeks and attending *Rocky Horror Picture Show* as part of her PDP encouraged her to be more open-minded about people who were different from her; she grew to appreciate that the world was bigger and much more diverse than she had imagined in her rural hometown.

As shown in Theme 8, lectures in HON 100 pushed students to consider new ideas and promoted a movement away from dualism to engage in critical thought. The very first lecture of the course at the welcome event was disorienting for some students, such as Student #13 who described feeling “shell-shocked” and a little “intimidated” and who left asking questions like “What’s my place?” Student #13 said that, as the course continued, lectures “gave [him] a different lens to look at lots of important issues.” The lectures gave him not only a new way of viewing the world but also the concepts to help make sense of his changing cognition. As he explained, “Honors has given me new tools to critically think and move away from dualism . . . just knowing about and being exposed to the concept helps.”

In parallel with being challenged to consider new ideas, nearly a third (32%) of participants reported being pushed to branch out and explore in their new campus community, stimulating greater openness to stretching themselves. Student #14 said that his exploration of different campus religious groups gave him new perspectives on faith, while participating in intramural sports changed his thoughts about competition. Student #11 effectively summarized the impact of engaging in challenging real-world experiences that helped her realize that she “could step up to the challenge and overcome it successfully.” In many of these cases, the students acknowledged that without the challenges being presented to them they would not have been so likely to stretch themselves and would have lost the catalyst for their transformation.

More holistically, Theme 2 indicates that students felt challenged to explore who they were and whom they wanted to become. Students talked about feeling a sense of freedom from constraints and expectations that helped them begin working toward their own identity instead of the one given to them back home. Student #10 explained, “Unlike my small town, nobody knows me here and with so many opportunities I can do whatever I want to do without judgment or pressure.” Student #18 echoed this sentiment,
saying, “HON 100 was enlightening because of the freedom it gave me. I realize I can do whatever, there were so many opportunities, and I can look at my values and decide what I want.” For these students, the new environment combined with class discussions about the development of self, identity, and meaning gave them permission to explore their passions and develop their independent selves.

As students wrestled with questions about who they were, independent of others, and what their values were, many of them also grappled with conceptions of their future selves and what they wanted to do with their lives, as reflected in the 68% of participants who reported in Theme 1 that the encouragement to explore direction and embrace change led to shifting priorities and purpose in life. For example, Student #6 said that both the passing of her grandfather and being in the honors program contributed to her first-semester transformation by helping her to question her motivations and to reevaluate her priorities. She explained, “My view on life changed and I started asking myself, ‘Am I doing what I want with my life?’” She decided that she needed to adjust her life values and consequently changed her major and career goals. Other students also made changes in their majors after receiving encouragement to reconsider priorities. For example, Student #8 reported that because of HON 100, “I had a sort of epiphany that I didn’t really want to do the career I was pursuing” and embraced the fact that she would need to change majors, working toward new goals she had never considered in high school. As she explained, though, this transformation was about more than majors because she was also reconsidering her religious tradition, had decided to become vegetarian as part of her PDP, and was determined to place more emphasis on learning and less on working for the grade. As she summarized, “I went from being completely focused on the A to concentrating on what I was learning and getting better as an individual.”

The Significance of Relationships and Support

Even as students reported being pushed and challenged in a variety of ways, they repeatedly emphasized that relationships and support were vital to their process of transformation. Student #9 said that honors “taught me to be proud of my academic drive” and that it “pushed and challenged me to be a better person because I’m surrounded by people who care.” Student #1 also stressed the importance of support, explaining, “I would not be nearly as involved at CMU without the constant pushing from honors . . . it’s nice to have a community of people to push me,” adding that “support is a big
thing for me” and that with the support of the honors community, there are “a lot more experiences that I am going to have.” While these students bring challenge and support together, others more prominently featured the importance of relationships and support as part of the process of transformation.

Some students described the importance of family relationships in moving away to college and reflected on the delicate balance of a desire for both support and autonomy. For example, Student #3 explained that she was struggling with maintaining the support of her “helicopter parents” while being her own person. She was particularly concerned about how they would react to a change in her religious identity, which she had not yet shared with them. Similarly, Student #15 discussed her sense of guilt as she was forging her new identity and independence since she knew that it would hurt her mother not to be needed in the same way.

While evolving relationships with parents were important, the main way that participants received support was through forming new relationships with peers and belonging to a community. Student #22 was initially afraid of building relationships, but when reflecting on his first semester, he said, “I feel confident in the fact that I don’t know what I’m doing, and that’s okay because I have a group of people I can talk to.” Other students noted that relationships formed in the honors community encouraged them to be involved in new opportunities that prompted growth. Student #12 said of the honors hall that “we are all in this together” and that he would “be a completely different person” if he didn’t have the support and encouragement of his hallmates to “try new things with me.” The role that these social relationships play in both challenge and support appears in Student #10’s story where she describes nightlong conversations about HON 100 lectures with other honors students in the residence hall. She explained that it was “so cool to be surrounded by people with so many different opinions” and to be able to disagree and debate while feeling supported by these new friends in the hall.

Successfully meeting challenges and forming support networks not only promoted students’ involvement in new opportunities and openness to exploring ideas, but it also facilitated increased self-confidence, competence, and comfort with self (Theme 4). Student #7 said that the biggest transformation she experienced was how comfortable she had become with herself and the person she was becoming: “I used to be my own worst critic, but now I am not as hard on myself and I have realized I don’t need someone with me holding my hand all the time.” For Student #7, being confident and comfortable was integral to her transformation as she was coming from a high school
experience where she had been bullied. She identified the role of these new supportive relationships in overcoming the “low self-confidence” that had initially followed her to college.

**Narrative Types**

Our narrative analysis indicated that most themes were present in many of the stories. Some, like the increase in acceptance and self-confidence, occurred in some form in almost all of the stories and were interwoven with other elements of the narrative plot. The research team’s discussions of how themes across stories were similar and different (constant comparative method) prompted a higher-level review to assess whether the full stories of student transformation could be grouped according to major story plot. This higher-level analysis of narrative type found that, although the stories overlapped in several dimensions, the core elements clustered into three distinguishable groups of transformative experiences: developing an independent identity, interpersonal relationships as foundations, and shifting paths and purpose in life. The titles of these narrative types were refined further based on their central focus: Self, Self and Other, and Self and World. A representative summary story, abstracted from a student’s full narrative and followed by a brief discussion to elaborate the core theme, illustrates each narrative type.

**“Self”: Developing an Independent Identity**

Student #11 used to feel that her small community defined her, but now she is breaking away and developing as her own individual, becoming more confident in herself in the process. She feels that she has more of a path for her life as a result of changing her major and exploring opportunities that she never previously considered, but she is also keeping her options open and figuring out what she wants independently of what others think. Her rural background, paired with honors courses and community support, has helped open her eyes to the many issues facing society and has expanded her view on the world and her place in it.

This group of stories is built around the transformation of self experienced through the development of autonomy and an independent identity. Participants described being freed from the constraints placed on them by the expectations of others, including their friends, family, and community, which
prompted a struggle to become their true selves. For the students in this group (41% of participants), the struggle to become their true selves involved the exploration and development of their own values, passions, and beliefs.

“Self and Other”:
*Interpersonal Relationships as Foundations*

Student #7 had a difficult transition to college because of preexisting mental health conditions that made it difficult for her to meet new people and do things on her own; but when she became involved in the honors residence hall, she gained confidence in herself and realized that she was capable of more than she ever thought possible. Building new relationships, especially in the honors community, was the key to developing independence and becoming comfortable with herself, leading her to worry less about what other people thought and to focus on what she wants. She used to have doubts about pursuing her chosen career, but now she is choosing to pursue her interest without second-guessing.

For Student #7 and the other students in this group (23% of participants), the central focus of their stories was the role of relationships as part of both the process and the outcome of transformation. Students were either transformed directly, as a result of forming new interpersonal connections, or indirectly, as a result of having transformative experiences that resulted from building these new relationships. Relationships allowed for exploration and were the foundation for increased feelings of self-confidence and competence, leading to a feedback loop of self-confidence and competence: increased self-confidence promoted new social relationships, reinforcing the process of self-transformation.

“Self and World”:
*Shifting Paths and Purpose in Life*

As a first-generation college student, Student #2 found that the transition and first semester were a big shock and did not go as planned. With the help of resources and knowledge from honors, she sought out involvements and experiences that were transformative. She developed a new awareness and appreciation for diversity, privilege, and inequality along with a realization that she had the power to make a difference in the world. As a result of increasing confidence
and feelings of capability in the face of uncertainty, she has become passionate about serving others and working to promote social justice; she has completely changed her career and life goals to focus less on money and success and more on fulfilling her newfound purpose to help others.

Core elements of Student #2’s story and other narratives in this category (36% of participants) reflect the emergence of a broadened perspective on the world as participants realized a new sense of their place and potential. From recognition of new opportunities for careers and life paths to an increased awareness of diversity and inequality, these students found themselves reexamining how they thought both about themselves and about the bigger world around them. The differences between their home environments and their new experiences as honors students in college created significant disruption that required new meanings and plans.

DISCUSSION

Our study began with two distinct but interrelated goals: the primary goal was to explore students’ experiences of transformation as they related to transformative learning models, and the secondary goal was to assess the elements of an honors program’s intentional efforts to promote transformative learning. Although the data coding procedures were designed so that a different member of the research team was leading each task with independent results anticipated, students’ narratives combined descriptions of the “honors experience” with the processes and outcomes of transformation to a high degree. Consequently, final coding and sample quotations needed to be integrated in the final presentation of results to avoid repetition. In qualitative research terms, this convergence of themes adds evidence for the validity of the major codes and themes.

Transformational Learning Lessons

While the purpose of this study was not to test any one model of transformative learning, one of the aims was to examine how transformative processes—including disorienting dilemmas, real-world experiences, critical reflection, and critical discourse common to these models—might be reflected in stories of transformation. The results suggest that disorienting dilemmas in a variety of forms were directly reflected in the narratives but that the students made meaning of their experiences in terms of “challenge”
and “push” rather than disorientation. Consistent with student development models, students reported being challenged upon transitioning to college, living in a new environment, encountering diverse people, and confronting new ideas and ways of thinking. Consistent with the language and assignments of the CMU honors curriculum, they also reported being pushed to think non-dualistically, to branch out and engage in new experiences, embrace identity moratorium, and seek their paths and purpose in life even as they worked toward more traditional achievement goals.

The transformative models’ emphasis on real-world experiences was also reflected in the narratives. Rather than addressing standard academic material, students were more likely to mention the PDP challenge-by-choice project or to reference an activity from the project that pushed them out of their comfort zone. Going vegetarian for a month, joining the No Grade Plan, or dressing up to attend the campus-sponsored Rocky Horror Picture Show with peers from the hall is not part of the standard curriculum; but providing a class structure to encourage personal challenge outside of the classroom by engaging in such activities helped students to stretch limits and open minds. Even more standard college experiences, like exploring student clubs or attending campus lectures, were enhanced because students acknowledged they might not have done them without the push of the program or course requirement.

While disorienting dilemmas and real-world experiences were essential elements of the process of transformation in the narratives, the concept of critical discourse was less explicit in the way the students made meaning of their experiences and was therefore not directly reflected in the major narrative themes. Students referred instead to the significance of relationships and support in their transformations; they especially noted the role of the honors residence hall in the formation of new relationships that supported their transition and facilitated greater engagement with campus life both socially and academically. Although students framed their experiences in terms of relationships rather than dialogue, their descriptions reveal that critical discourse was happening and was facilitated by the combination of shared coursework and shared residence.

Critical reflection was also a less apparent process in the way the narratives were framed, but it was taking place in all HON 100 reflective writing pieces as well as the “writing to learn” assignments in all first-year seminars. Because we conducted a grounded theory analysis of themes that emerged from the data and not a test of a model, the concept of critical reflection was
probably collapsed or embedded in other themes about new ways of thinking and shifts in priorities and goals. Students also might have taken for granted the critical reflection piece because they were regularly required to debate ideas and to write formal reflections in essays, reports, journals, and creative pieces.

In addition to transformative learning processes, Taylor and Cranton have summarized ways that transformative outcomes might be organized, including deeper understanding of the social construction of knowledge and truth, development of autonomous identities and personal choices for life, and enlightenment about inequality with empowerment to promote social justice. These outcomes are similar to the three overlapping groups of transformative experiences identified in the final stage of analysis, but important differences are worthy of future research.

The development of an individual identity revealed in our study is closely related to the Taylor and Cranton's focus on emancipation from constraints that hold people back from discovering their true selves and developing an autonomous identity. Similarly, shifting paths and purpose in life was a narrative category closely related to the idea of becoming more critical of society as students come to recognize inequality. Narratives belonging to this category described a broadened view of the world and of students' position in that world, including new ideas, paths, and purposes in life, that often included a greater awareness of diversity and a newfound desire to challenge societal systems of oppression and to work for justice.

Despite clear similarities between our students' outcomes and the transformative models, Taylor and Cranton's notion of developing intellectually and critically examining notions of absolute truth did not emerge as a separate outcome. Since the opening lecture of the welcome event includes activities related to critical thinking and challenges students to move beyond dualistic thinking (e.g., Perry), this finding was a bit unexpected. By the end of the first semester in honors, every student knows that knowledge is socially constructed and depends on assumptions, paradigms, and definitions. However, in the narratives, a shift toward higher levels of critical thought was woven into stories as part of the process that leads to the other outcomes. In the CMU honors curriculum, moving beyond notions of absolute truth and dualistic notions of knowledge is the foundation for exploring new ideas, seeing old ideas in new ways, creating a more meaningful self, and seeing the world and one's responsibility to it in new ways. The realization of alternative ways of thinking is core to all the story types and outcomes.
Similarly, although the “interpersonal relationships as foundations” category was a group of transformative outcomes in these stories that was not reflected in the Taylor and Cranton summary, this narrative theme overlaps significantly with the other stories and helps to highlight the central role of interpersonal dynamics in transformation. The emergence of this theme as an outcome indicates that the students placed a special importance on relationships; it also echoes feminist scholarship on identity development, challenging more individualistic notions of self with its focus on engaging with others and learning from diverse points of view (e.g., Willett, Anderson, & Meyers). The fact that 77% of our sample identified as female suggests the importance of considering gender, in all its variations, as a factor in the experiences of transformative learning. The size of this sample, however, limits the ability to explore this topic.

**Application to Practice**

As the current study was not designed to argue that this particular honors curriculum is better than others and was not intended to suggest that transformative learning should be exclusive to honors education, the pattern of student reports reveal several useful touch points for university educators in any context. At the most basic level, our assessment helped to address whether the intensive investment in coursework and programming for the first semester is worthwhile, especially for students at lower risk for persistence and retention challenges. Both the amount of time required of the staff and faculty and the financial investment required to provide the combination of in-class learning and out-of-class experiential opportunities are substantial. However, our results demonstrate that, beyond strong end-of-course evaluations and persistence to the next semester, intentional programming based on transformative processes and goals can have a substantial impact on student outcomes at a deeper level.

Although other features of the first-semester curriculum were noted in student reports (first-year critical thinking seminars and other departmental honors offerings), the special significance of the HON 100 class in both the content and thematic analyses is noteworthy. Students acknowledge the significance of the content as it provides both intellectual challenges and concepts that connect students’ lives to the honors mission, simultaneously pushing them to use the university as a real-world laboratory for exploring these concepts themselves. Investment in this class has increased over time with a transition from one to three credits, development of a TA program...
with small groups to enhance support, and integration of the semester-long 
PDP activity. The degree to which the PDP wound its way into narratives 
highlights the special value of experiential learning that connects to both 
classroom learning and the real-world lives of students. The degree to which 
a first-year honors orientation class, required of all students, is core to almost 
all of the transformative narratives serves as an indicator of the importance of 
the development and assessment of this piece of the honors curriculum.

Along with the challenge provided in HON 100, the undergraduate TAs, 
small groups, and especially the honors residential community all played sig-
nificant roles in ensuring that students confronted challenges together and 
that support was structured and consistent. The CMU Honors Program is 
embedded in a residential campus community with traditional-age first-year 
students, and the policy decision to require all first-year honors students to 
live together in a residential community had its detractors. Earlier assessment 
and program review data were clear, however, that students beginning their 
academic careers together in the honors hall were significantly more likely to 
complete their honors protocols and to benefit from the supports and chal-
lenges that came later in the program, e.g., capstone completion, internships, 
and study abroad. The data verified that, beyond these longer-term outcomes, 
the potential for earlier transformation is enhanced when students can bring 
their classroom discussions back to the hall and engage in dialogue with a 
diverse group of peers in late-night chat sessions or long, lingering meals in 
the dining commons. Creating structures to facilitate deep discussion and 
shared activities outside the classroom is an important strategy for promoting 
the strongest outcomes for positive change, with honors housing presenting a 
special opportunity (Frost).

Finally, the degree to which student stories referenced the honors 
experience as a means to inspire a sense of shared culture shows that the first-
semester experience sets the norms and expectations for any honors program, 
regardless of its orientation, which is especially important given the strong 
set of biases that students of high academic ability bring with them to hon-
ors. Because the students and their recent peers had all taken part in similar 
activities, curricula, and discussions, they shared the program’s biases toward 
personal development and transformational outcomes even as they worked 
toward different academic and professional goals. The phrases used by the 
first-year students echo comments of upper-division students as they joke 
about “embracing moratorium again” while changing majors or “doing it like 
the PDP” when confronting a new challenge. As students self-author their
personal stories of academic achievement (e.g., Magolda; Barber & King), they are being reminded by both the program and each other of the transformational goals of deep learning and of the outcomes it engenders. This sense of culture then informs the recruitment of the next cohort of learners.

CONCLUSION

Rather than focus on retention or problems in adjustment to the college environment, our study explored the experiences of honors students who are thriving and being transformed by their first semester of college. The nomination procedure was unique within both the first-year experience and honors literature, allowing the research team to assess the effectiveness of intentional honors programming and to explore how a small group of students describe the process of transformative learning. Twenty-two of the forty-one students nominated on the basis that they might have been transformed during the first semester described themselves as transformed, conveying a substantial amount of growth and a qualitative change after only one semester in college. Probably others are in the process of transforming but have not yet come to think of the experience in those terms, and still others may not have begun the process but will at some point during college. If the lessons drawn from the stories of this first sample hold true, the seeds of transformation planted in the first semester will most likely bloom and grow for many more students later in their college years, and they will have the conceptual tools to guide that transformation constructively.

While these results document that an intentional and intensive effort to plant the seeds for transformation in the first semester can have a profound impact on student outcomes, we are not arguing that this program has the best model or that transformative learning is exclusive to honors education. However, honors programs have the opportunity to both push and support a select group of students by giving them the structure and permission not only to achieve but also to achieve meaningfully, with the freedom to explore majors and paths, to develop awareness of themselves and the world, and to become a change agent for a more just society. In short, beyond supporting the traditional models of academic achievement, all honors programs have the potential to provide enhanced educational experiences that are emancipatory so that students can transform themselves and the world for good.
REFERENCES


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APPENDIX

Interview Protocol

(script in bold italics / instructions in regular text)

Begin with review of consent form and address any remaining questions before beginning interview.

Demographics

Interviewer will introduce him- or herself briefly and state his/her connection to the research. For example: Hello, allow me to introduce myself! My name is (name of interviewer), and I am a (year in school) at Central Michigan University in the Honors Program, going into (concentration of study).

First, thank you very much for agreeing to participate in this interview; I appreciate your time! You have indicated that you have been transformed by your experiences during your first semester here at CMU. The purpose of this interview is to help me gain a deeper understanding of your experiences.

Overview: I’ll start by asking for some very basic demographic information, and then ask you about your high school experiences and who you were prior to CMU. Next, I’ll ask you to tell me your story of your first semester experiences, from the beginning up until now. Last, I’ll ask you how you think your transformation will impact your future and if you have any recommendations to the Honors Program for how to better facilitate positive transformational learning experiences for future first-semester Honors students.

So first, I just need some basic demographic information so we can describe characteristics of our sample for professional audiences.

What gender do you identify as?

Age?

Year in School?

How do you describe your ethnic or racial identity?

Before we begin talking about your CMU experiences, it will help me if I have some basic background information. We would like to know anything that is useful in understanding who you were before coming to CMU, such as what type of high school you attended, what your community was like and how it
influenced you, what your experience in school was like, family influences, and so on.

High School Type: (public/private, rural/urban, etc.):

Community:

School:

Family Influences (First Generation college student?):

Whatever else that’s useful in understanding who you were before coming to CMU:

**Story of Transformation**

OK—now that I have some background information, it is time to start talking about your first-semester experiences at Central Michigan University. You indicated that you have been transformed, so starting at the beginning from when you first came to CMU until now, please tell us the story of how you have been transformed across your first semester here at CMU.

Probe: Ask the following questions if the student does not answer them when telling his/her story:

- What was your initial transition to the University like? What were some good experiences, and what were some challenges? How prepared (or unprepared) did you feel?

- What were the experiences that were the most important/impactful in shaping your transformation? Why?

- If most experiences discussed were not Honors related: We are interested in learning about how Honors may have played a role in your transformation. Is there anything from your Honors education so far that has transformed you?

- If most experiences discussed were Honors related: Why do you think this is the case? Are there any experiences outside of Honors that have been transformative?

As we wrap up this section of the interview, I just want to clarify, what specifically about you has changed? What is it about your self that is different when you compare who you are now to who you were before coming to CMU?
We know that not everyone transforms to the same extent during the first semester of college. From your perspective, how do you explain why you transformed to a greater degree than some of your CMU peers (both Honors and non-Honors)?

Are there any other experiences or thoughts that you would like to share before we move on to the next question?

Future Impact

Okay, so we’ve talked about your story and how you have transformed since coming to CMU. You are a student who has successfully completed your first semester of college and you are continuing on your college journey.

Given your experiences in your first semester, how do you feel your transformation will impact your future? In other words, how will your future (both at CMU and beyond) be different as a result of your first-semester experiences and transformation?

Recommendations/Feedback for the Honors Program

Part of the reason we are doing this study is to gain insight into what it takes to help future CMU students transform as a result of their experiences in the first semester of CMU Honors. So now it is your chance to give the Honors Program some recommendations about how to provide more opportunities for positive transformational learning experiences for future first-semester Honors students. What feedback do you have as a result of your experiences? What advice would you share regarding how we can improve and enhance the first-semester Honors experience for future Honors students?

That is my last formal question but I want to make sure that I give you a moment to think about all that you have shared and to see if you think anything is missing. Remember we really are interested in understanding how and why your experiences have been transformational, what it is about you that has been transformed, and what the implications are for your future. Is there anything else you want to add to help clarify any of this?

Thank you so much for your time. Let me just remind you that all of the data is confidential and will not be shared in ways that identify individuals.

If you have any questions later on, you can of course contact the research team. We will make sure to send you a summary of results from our analysis! Thank you once again for your time, I really appreciate it!
Two Neglected Features of Honors Advising

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Recent studies on advising show considerable agreement about the sorts of practices that constitute good advising, whether by a professional staff advisor, an official faculty advisor, or an unofficial faculty mentor. These practices include creating a welcoming atmosphere, building a trusting relationship, and helping the student find resources to envision a flourishing future and make concrete plans to achieve it (Gregory and Edwards; Bloom et al.; Cooperrider et al.). Two important features of advising, though, do not receive the focus they deserve. The first is the advisor’s practice of attention, an activity that forms the basis of a trusting relationship and that does justice to the advisee. The second is helping advisees discern their vocation, or life goal, which students need in order to make rational decisions about their academic and post-academic careers. Attention and vocation, topics well established in philosophical literature (Weil; Murdoch; Adams; Frankena), are relevant to and valuable for the practice of good advising.

While attention and focus on vocation should inform all advisors’ work, aiding students to identify the coursework and extracurricular activities that will help them flourish, they are especially important features of honors advising. While some honors students come to college without a clear
vision for their future, many are well-prepared for advising, appear certain about what they want to do in life, have well-formulated, multi-year plans for college, and can articulate in detail what they want to pursue after graduation. The thoughtful detail with which they present their plans offers the illusion that honors students do not need the level of guidance other students need, especially if advisors assume that their task is no more than getting students through a coherent college program that will allow them to embark on their chosen career. While honors students may not need the same sort of guidance as other students, they still need an advisor’s guidance in subjecting their detailed and concrete plans to the continuing questions and scrutiny they would apply to a thesis under discussion in an honors classroom. Such querying opens the door to a richer advising experience in which students have a better understanding of their career goals and how they fit into the larger scheme of the students’ life goals.

A focus on attention and vocation ensures that honors advising will share key features with the honors classroom and curriculum. For instance, a typical honors curriculum has as one of its goals the students’ increased intellectual autonomy. Courses are often taught in a seminar style: students can decide what they find important in their readings and projects; study questions, if used at all, do not prejudice the students’ learning; and the professor is a senior partner in the collaborative enterprise of learning. Similarly, the practice of attention in advising, with a focus on the students’ vocation, enables students to arrive at greater self-knowledge and awareness, encouraging them to see for themselves how to structure their academic and post-academic careers. The pedagogies of honors advising should thus resemble those of the honors classroom.

ATTENTION

Honors programs are quick to point out that they are student-centered, often with a clear philosophy of what this means for classroom and laboratory instruction, e.g., insistence on experiential learning, small class sizes, student-led courses, instructor accessibility, and tutoring. Honors programs are less clear about student-centered honors advising even though, like any sort of academic advising, it is itself a form of instruction and should be governed by a pedagogical philosophy consistent with classroom and laboratory instruction. This failure is surprising since advising sessions, with either official advisors or unofficial mentors, are often a university’s best chance to focus on the individual student. Alongside independent research and paper
consultations, advising is one of the few times a student will meet one-on-one with a mentor.

A student-centered advisor does more than simply inform a student about possible degree programs and report the courses needed to fulfill it; that much can be accomplished by a catalogue or interactive software. Student-centered honors advisors know their advisees personally; meet with them regularly; talk about their needs, values, and concerns; and discuss what makes for a flourishing life. Only with such personal understanding can advisors counsel students about how best to formulate and achieve their academic and co-curricular goals. The best way to understand what it means to be student-centered in honors advising is by appeal to the concept of “attention” as defined by such philosophers as Simone Weil, Iris Murdoch, and Raimond Gaita. The practice of attention results in trusting relationships in which the advisor can offer students the most appropriate advice for their academic and post-academic lives.

Some recent literature on advising touches indirectly on the importance of attention but does not treat this issue explicitly. For instance, in the “Appreciative Inquiry” model of advising (Whitney and Trosten-Bloom; Cooperrider et al.), advisors should devote time to such activities as discovering, dreaming, and designing. Advisors discover who their students are by listening to their stories, watching for verbal and physical cues about a student’s passions, and offering appropriate encouragement. They help students dream by helping them conceptualize attractive but accessible career paths and ways of life that they might want to adopt. After students have settled on one or more possible courses of life and career, they have clear goals that they can work to achieve, and advisors can then help them design an appropriate course of study and co-curricular activity. In order to make these discoveries about their advisees, help them formulate achievable dreams, and work with them on a plausible plan, advisors need to cultivate their own capacity for attention; otherwise, they risk failing their advisees at each of the three stages.

Attention is not simply listening to advisees, watching for their non-verbal cues, keeping one’s mind from wandering, or paying appropriate respect, although the practice of attention results in all these outcomes. As much of the literature on advising recognizes, good advisors need an accurate understanding of their advisees’ particular learning needs, of which challenges will be inspiring and which dispiriting, of what their advisees value and care about now, and of what values they are still formulating. In Iris Murdoch’s metaphor, advisors need a “vision” of their students in order to advise them, as the current literature acknowledges (e.g. Bloom et al.; Cooperrider et al.).
Contrary to what we might expect, attention begins not with a focus on the person we are trying to pay attention to but rather with self-understanding and self-criticism (Weil; Murdoch). Genuine attention to another person begins with turning a critical eye on ourselves. Each of us exhibits, consciously or unconsciously, our own preconceptions, preferences, bigotry, pretensions, fantasies, conceit, and simple self-love, and these attitudes interfere with our accurate vision of other people. This inaccurate vision is a sort of injustice since we see others through the lens of our own egos. Murdoch offers a telling example of a mother-in-law who has just such a distorted vision (Murdoch 18–19). She finds her daughter-in-law pert, unceremonious, and juvenile. She dislikes her accent and way of dressing. She thinks her son has married beneath him. However, this mother-in-law then engages in critical self-reflection. As she begins to realize that she herself is snobbish, pretentious, and jealous, her vision of her daughter-in-law begins to change. Her daughter-in-law is now “refreshingly youthful” rather than “tiresomely juvenile.” Of course, the daughter-in-law has not changed at all. Rather, by bringing to light and correcting the pretensions and fantasies that had distorted her vision, the mother-in-law is able to achieve a more just and accurate vision of her daughter-in-law.

Critical self-reflection is crucial to forming an accurate vision of others. In Murdoch’s example, it enables the mother-in-law to see why she had originally developed the prejudices through which she envisioned her daughter-in-law and to jettison these prejudices as products of her own ego. The temptation to form selfish, unjust concepts is powerful and affects even the most reflective of us, as Robert Coles explains in recounting his first meeting with Dorothy Day. Coles had learned from his parents about the Catholic Worker Movement that Day had founded, had heard his mentors Reinhold Niebuhr and David Roberts speak approvingly of her work, and as a medical student had decided to volunteer at Day’s New York soup kitchen. Having arrived at the soup kitchen, he walked into a room where he found Day sitting at a table with a middle-aged woman who was visibly drunk and ranting. Day was intent on this woman’s conversation. Coles, a young man of privilege, kept wondering when this “conversation” would end. Just as the drunken woman seemed ready to stop, Day would ask a question and the intoxicated woman found the wherewithal to revitalize the conversation. Only after a lull in their exchange, when Day asked the woman if she would mind an interruption, did she at last approach Coles to ask, “Are you waiting to talk with one of us?” (xviii). Day’s question is striking because most people would have assumed that Coles would have no interest in a ranting, middle-aged drunkard. Nearly
everyone will profess that all human beings are equally worthy of respect and neighborly love, yet Coles’s striking example reveals that we do not always manage to see others as equals. Instead, we envision them through the lens of our ego: If I am an accomplished humanitarian, surely an intelligent young man of privilege must be here to see me and not a ranting drunk. However, by cultivating the power of attention, we eradicate these unwarranted and unjust assumptions.

In both Murdoch’s and Coles’s examples, we find lessons important for honors advising. We must put aside our self-importance, the thought that what we work on or care about is more important than what others work on or care about. When we approach our advisees with sufficient self-awareness to mitigate our distorting prejudices, we can see who they are and help them plan their lives. Our prejudices may take many forms. An advisor might be tempted to think of an advisee as “just another pre-med student,” just another common sort of case to handle. More commonly, honors advisors who are faculty members may be tempted to re-create themselves in their advisees, to further their own intellectual agenda through their best students whether this course of study is best for the advisee or not. A different sort of advisor, Ignatius of Loyola, tried to forestall this kind of problem in writing his Spiritual Exercises: “The one who is giving the exercises should not move the one receiving them . . . to one state or manner of living rather than another”; rather, the advisor should remain “in the center, like the pointer on a scale,” to allow unmediated exchange between God and creature (Exercitia spiritualia, Annotation 15, 27–29, translation mine). The same principle applies to honors advising: advisors may want to promote their own fields, to see the sort of work they do furthered by the brightest students. Nevertheless, if a student is discerning the best course of study, the advisor should remain “in the center, like the pointer on a scale” to allow the student freedom of discernment. Failure to do so is failure of attention.

When advisors exercise attention, they invite students into the sort of trusting relationship that the National Academic Advising Association (NACADA) has emphasized in its conceptualization of academic advising: “the relationship between advisors and students is fundamental and is characterized by mutual respect, trust, and ethical behavior.” When we trust, we aim at attaining or safeguarding some good by relying on another person. That reliance makes us vulnerable; in trusting, we place ourselves to some extent in another person’s power by entering into an implicit or explicit agreement and acting with the confidence that the other person will not betray us. Despite the risk of betrayal, trust is worth striving for because of personal
and communal goods that would otherwise lie outside our reach. Through trust, advisors can help students achieve the significant goals of greater self-knowledge, discernment of their vocations and career goals, and selection of optimal courses and activities.

In a trusting, attentive advising relationship, an advisor can help students understand more accurately who they are, including what they value and what they care about, and thereby discern more effectively what their careers and vocations should be. This discernment requires a joint effort of attention between advisor and students in seeking an accurate narrative of the students’ lives, past and present, and of their aspirations for the future. The advisor and student thus work to uncover the right concepts with which to understand their lives and aspirations. By “accurate narrative” and “right concepts,” I mean a narrative and concepts that are not distorted by the lens of unreasonable fear or fantasy. The advisor should help students look at their lives from multiple perspectives and find those that are fairest to themselves. Again, in keeping with the best honors pedagogy, the advisor should not tell students how to conceptualize their lives but should instead cultivate their capacity to do it themselves. For instance, students whose self-doubt distorts their accurate assessment of their talents, capacities, and achievements might ignore their advisors’ well-intentioned counsel to apply for prestigious fellowships or admission to elite graduate or professional programs. Attentive advisors, aware of the students’ fears and anxieties, do not simply insist that their advisees are well-qualified but (as in the honors classroom) enable them to come to this conclusion on their own by sharing information about successful applicants. Once students see no significant difference between successful applicants and themselves, a major obstacle to fair and accurate self-conception is eliminated and advisors can dispense advice that the students will be able to appreciate.

While guarding against the most egregious failures of attention is easy, other failures are more elusive. In the contemporary university, the injustice of unwarranted assumptions based on race, ethnicity, religion, gender, sexual orientation, and economic status is now well-known, and the ubiquity of diversity training and of diverse student populations has raised advisors’ awareness and avoidance of such inattention. Nevertheless, as the Coles anecdote about Dorothy Day reminds us, failing to live up to the egalitarianism we sincerely believe in is sometimes shockingly easy. We must be on guard against defects of attention even when—perhaps especially when—we are confident of our capacity to treat students justly.
Advisors more commonly fail to show attention by injecting their prejudices about fields of study into advising. An advisor who cares little for literature might advise a student to major in communications rather than English just as one who loves history might counsel a student to study Latin rather than Spanish. In neither case does the advisor base the suggestion on the student’s needs or passions. Rather, the suggestion stems from the advisor’s own likes and dislikes.

Most advisors are pressed for time, especially overburdened professional advisors or faculty members who undertake advising as required service in addition to research and teaching. Under these conditions, advisors must guard against lapses in patience in which they jump to conclusions about what would be good for the student. Like honors teaching, honors advising is a time-consuming, labor-intensive activity in which the advisor must patiently explore options with the student until the student can see for herself how to proceed.

Finally, we may simply fail to be “present” to the advisee (Gaita 268ff). Our advisees deserve not just part of our attention but all of it, expressed not just in the advice we dispense but in the manner of our speech and body language. We need to convey the conviction that we are responding to their needs, anxieties, and hopes. If we are only present enough to dispense advice as a catalogue might, we fall short. We must be sufficiently present that students trust us to offer something they can seriously consider and take to heart on the basis of trust. Honors advising is particularly vulnerable to a lack of presence: because honors students are bright and self-motivated, we may assume they will be responsive to dispassionate reasons however they are delivered. Such an assumption leads to lost opportunities for building relationships of trust and attention that can help students understand themselves and discern their vocation in life.

Through their advisors’ attentive presence, students become aware that their advisors understand them and will treat them with justice. The advice they receive will therefore not be generic, haphazard, or self-seeking but will be designed for their particular needs and concerns. The intentional practice of attention achieves the goal of the so-called “Disarm Stage” of Appreciative Advising (Bloom et al.), in which advisors seek to build an environment that makes students feel safe. Putting aside computer, cell phone, and other distractions, advisors prepare to be fully present to their advisees, listening carefully to their advisees, attending to their body language, asking questions, offering feedback, and demonstrating that, at that moment, nothing is more
important than the advisee’s academic life and post-academic career. The safety that attention breeds includes a relationship of trust and a sense of justice, which serve as a fruitful foundation for advising.

**VOCATION**

The concept of vocation articulated here, although perfectly at home in secular thought, has roots in the thought of the Protestant Reformers. Opposing a medieval conception in which a vocation is always God’s call to the clerical or religious life, Reformers such as Martin Luther maintained instead that God calls people to a wide variety of occupations that express virtue and serve the community. The work is therefore holy and constitutes a person’s distinctive role in the world (Luther). People discern this call through prayer and reflection on the conditions in which they find themselves, including their economic situations and constraints, their talents, and their inclinations. By living out their vocations, people have a meaningful life that expresses love of God and neighbor.

Over the last hundred years, many philosophers have drawn on the Reformers’ ideas to develop accounts of vocation that can be understood in either a religious or a secular context (Frankena; Rashdall). The account I advance here retains important features of the Reformation concept, holding that a vocation is an occupation expressing virtue and benefiting the community; it departs from the Reformers, however, in its contention that a vocation is constitutive of one’s identity and may involve a purely metaphorical call.

By asserting that a vocation is an occupation, I am departing from the frequently held contemporary view that a vocation is a paying job. I am proposing that any long-term engagement in a field or discipline may constitute an occupation and serve as a vocation. For instance, a person’s vocation might be volunteering, producing works of fine art, tending the house and garden, or political activism, whether in paid positions or not. However, any occupation that is a candidate for vocation must express virtue and benefit the community. An evil occupation like human trafficking or a useless activity like digging holes for the fun of it cannot qualify as a vocation.

When advisors engage in the common practice of asking their advisees to envision a future life that will make them feel proud, they are asking these students to ponder many of the same considerations that enter into their discernment of their vocation. Students are likely to feel proud when they are pursuing an occupation that expresses virtue and benefits the community. Encouraging students to go further and to think specifically in terms of
a vocation is even more fruitful. People's vocations largely constitute their identity, and discernment of a vocation begins with reflection on their values and on what they care about, which together determine what they find meaningful in life. This kind of reflection enables students to envision a future self that they want to grow into, a self that expresses their cares and values. This future self then serves as a goal that “calls” the student. In some cases, students will understand this metaphorical call as an invitation to a meaningful life while others will see it as an obligation. In either case, the sort of occupation the student must undertake to achieve the future self is his or her vocation. Reflection on vocation thus helps students to articulate their current concerns and values, how they see themselves living out these concerns and values in the future, and the sort of occupations they might find conducive to that future life.

This future self, if the discernment process goes well, is neither an idle daydream nor a prediction of what the future will hold. Envisioning a future self is a crucial exercise for understanding who the student is now. People are temporal, working in the present to become something in the future. The future self that one conceptualizes influences the present self (Adams). This insight helps us give sense to a paradoxical question expressed by both Kierkegaard and Nietzsche: How does one become what one is? The answer lies, at least in part, by pursuing one's vocation, by growing into the future self that partly constitutes one's present identity.

This sort of discernment may not come naturally, and good advisors can help students to discern well by getting them to reflect on what they value and care about. One technique for eliciting this sort of reflection is asking students what sort of life they would find worthwhile and fulfilling if they did not have any financial constraints and did not have to appease their parents or peers. Their answers will provide the starting points of a conversation about their vocations by identifying the sorts of activities they value for their own sake and not as instrumental means to some further end. No matter what sorts of answers students offer—janitor, pastry chef, butterfly collector—the advisor now has a place to start and can explore with students what they find appealing and important about these sorts of lives. That exploration will help students identify a future life that, while providing a living wage, allows them to express and grow more fully into themselves.

Once a student has completed her initial discernment of a vocation, she will have a clearer idea of what her distinctive role in the world is, of the path that will express her identity and give her life meaning. However, the process
of discernment by its very nature is ongoing. As a student learns how to live a certain vocation, it shapes the way she sees the world and her role in it (Frankena). Her perspective on the world will be conditioned by her vocation as an engineer, a policy analyst, a historian, and as the perspective changes, she will need to continue to query the meaning of her own life and the role she plays in the larger community. For this reason, advisors should give students sufficient conceptual tools to continue their vocational discernment well after graduation. Those tools include a vocabulary rich enough to sustain periodic reflection on their evolving values and concerns and to construct a sufficiently complex narrative of their lives. Hence, advisors should encourage students to think in terms of flourishing, vocation, identity, values, concerns and passions, commitments, duties, relationships, and love.

By appeal to vocation, advisors ensure that discussion of the student’s life goals is not haphazard but focuses on helping the student articulate her identity and grow further into it. However, discernment of the activity or constellation of activities that constitute a student’s vocation should follow a distinctive honors pedagogy. Honors education is a collaborative effort involving both professor and student, with honors courses driven by discussion, focused on projects, or otherwise grounded in experiential learning. In honors advising, the vocational discernment process should follow the same pedagogy, with advisors allowing students sufficient scope for discernment by practicing the sort of attention I articulated earlier. As students reflect on their life goals, an advisor could speed up the process by weighting the student’s preferences in one direction or another, but, mirroring the honors classroom, honors advising pedagogy dictates that the student make this discernment for herself, looking at the various relevant considerations from multiple perspectives, querying her decision-making process, and revisiting her answer in light of her investigations. Like all honors education, the process is labor-intensive but necessary if the student is to arrive at an authentic answer.

Once a student has a working idea of what her vocation is and how her career or volunteer activities will be related to it, she is able to make more informed decisions about her program of study. She selects majors, minors, and extracurricular activities on the basis of not just a future career but also a vocation. The result is a maximally rational plan of study that provides criteria for selecting the most effective means to her goals.

At the same time, advising with an eye to vocation should not rule out adventure, serendipity, or even whim in the selection of courses or extracurricular activities. If students have a conception of their vocation, they should
use that conception as one important principle of course and activity selection. However, vocation is not the entirety of one’s life, and so nothing rules out advising students to sign up for a course that sounds interesting, fun, challenging, or just weird. Taking vocation seriously as a principle of rational decision-making does not mean abandoning whimsy.

CONCLUSION:

VOCATION, ATTENTION, AND HONORS PEDAGOGY

An explicit effort to incorporate both attention and vocation into honors advising promotes a trusting relationship between advisors and students so that students can develop the self-knowledge and intellectual autonomy to make rational decisions about their life goals and curricular commitments. The value of attention follows from the desiderata of honors pedagogy, in which we train students to design experiments with painstaking care in order to confirm or invalidate hypotheses. Bias must be filtered out of an experimental design to ensure the greatest objectivity. Likewise, students must read texts carefully, not jumping to conclusions about what Homer or Chaucer or Austen means but reading carefully and with sensitivity to the work’s historical and cultural context. The principles of the discipline dictate how students proceed, learning to avoid preconceptions, prejudices, and unwarranted assumptions in working through the material. These standards of attention that we practice in the honors classroom should extend to our practice of advising as we help students set the trajectory for the rest of their lives.

REFERENCES


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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

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</tr>
</thead>
<tbody>
<tr>
<td>Beginning Honors Students</td>
<td>n = 56</td>
<td>n = 50</td>
<td>n = 49</td>
<td>n = 47</td>
<td>n = 76</td>
</tr>
<tr>
<td>Gender (% female)</td>
<td>75%</td>
<td>82%</td>
<td>82%</td>
<td>83%</td>
<td>85%</td>
</tr>
<tr>
<td>Race (% students of color)</td>
<td>9%</td>
<td>9%</td>
<td>8%</td>
<td>9%</td>
<td>12%</td>
</tr>
<tr>
<td>Residence (% commuters)</td>
<td>45%</td>
<td>32%</td>
<td>33%</td>
<td>26%</td>
<td>28%</td>
</tr>
<tr>
<td>Mean HS GPA</td>
<td>3.88</td>
<td>3.91</td>
<td>3.96</td>
<td>3.94</td>
<td>3.98</td>
</tr>
<tr>
<td>Mean SAT CR</td>
<td>587</td>
<td>587</td>
<td>592</td>
<td>594</td>
<td>573</td>
</tr>
<tr>
<td>Mean SAT Math</td>
<td>606</td>
<td>597</td>
<td>574</td>
<td>570</td>
<td>567</td>
</tr>
<tr>
<td>Mean GPA (Late-joiners)</td>
<td>3.75</td>
<td>3.78</td>
<td>3.70</td>
<td>3.85</td>
<td>3.89</td>
</tr>
<tr>
<td>Mean Prior College Credits</td>
<td>19.00</td>
<td>13.72</td>
<td>13.44</td>
<td>14.49</td>
<td>11.56</td>
</tr>
<tr>
<td>Retreat Participation Rate</td>
<td>45%</td>
<td>44%</td>
<td>43%</td>
<td>43%</td>
<td>36%</td>
</tr>
<tr>
<td>Degree Completion Rate¹</td>
<td>91%</td>
<td>92%</td>
<td>94%</td>
<td>89%</td>
<td>83%</td>
</tr>
<tr>
<td>Mean GPA at Graduation</td>
<td>3.59</td>
<td>3.60</td>
<td>3.70</td>
<td>3.62</td>
<td>3.63</td>
</tr>
<tr>
<td>Program Completion Rate¹</td>
<td>60%</td>
<td>66%</td>
<td>76%</td>
<td>70%</td>
<td>68%</td>
</tr>
</tbody>
</table>

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

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

\(^a\) 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>
<thead>
<tr>
<th>Table 3. Longitudinal Outcomes by Honors Joiner Type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Number of Beginning Students</td>
</tr>
<tr>
<td>Mean Number of honors credits in first semester (SD)</td>
</tr>
<tr>
<td>Mean Number of honors credits completed in total (SD)</td>
</tr>
<tr>
<td>Thesis Attempt Rate</td>
</tr>
<tr>
<td>Honors Program Completion Rate</td>
</tr>
<tr>
<td>Degree Completion Rate</td>
</tr>
<tr>
<td>Mean GPA at Graduation (SD)</td>
</tr>
</tbody>
</table>

* \( p < .05 \)
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 ($n = 198$)**

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

* $p < .05$
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.

REFERENCES


The author may be contacted at jgonsalves@salemstate.edu.
How the Implementation of Honors Sections Affects the Academic Performance of Non-Honors Students

Art L. Spisak, Sam Van Horne, and Keri C. Hornbuckle
University of Iowa

INTRODUCTION AND JUSTIFICATION

Research in honors education generally credits honors students with elevating the academic experience for all students at an institution (see Andrews; Clauss; Brimeyer et al.). Honors students are seen as having a positive peer effect: setting a standard for other students to follow as well as stimulating and challenging faculty, thereby raising the level of the classroom for all (Joseph W. Cohen, cited by Andrews 38). Thus, many assume that moving honors students into separate sections adversely affects the academic performance of non-honors students, an assumption we faced at our institution. In the context of a study done in a college of engineering, that perception is even stronger because peer-to-peer and group projects are such important pedagogical elements of the engineering undergraduate curriculum. We are unaware of any research on how honors sections of general education courses...
affect the academic performance of non-honors students taking those same courses, but our study indicates that the implementation of honors sections for selected core courses in the University of Iowa (UI) College of Engineering did not adversely affect non-honors engineering students taking those same core courses.

OUR STUDY

In the fall of 2015, the UI College of Engineering inaugurated honors sections of core engineering courses for two reasons. First, the undergraduate engineering population had become large enough for honors sections to be economically and logistically feasible. The college’s enrollment had increased from about 1,200 students to more than 2,000 over six years. New sections of the core first- and second-year courses were necessary, thus providing an opportunity to add honors sections. The second motivating factor came from the UI Honors Program, which had recently changed the criteria for eligibility and graduation requirements, reducing the total number of honors students and making an increased proportion of first-year engineering majors eligible for honors. Although engineering students had previously made up a large fraction of honors-eligible students, they were not easily retained because of scheduling constraints and the absence of honors courses in the engineering curriculum. The honors program and the college of engineering were both interested in attracting more engineering students to the honors program and graduating more engineering students with the honors credential.

The honors engineering sections were created and approved by the Engineering Faculty Council (EFC) on a trial basis. The EFC manages four subcommittees, and one of those subcommittees, the Curriculum Committee, was charged with developing a set of guiding principles for honors sections (see Appendix A) as well as making recommendations to the EFC regarding continuation of the honors sections. Honors students were not required by either the engineering college or the honors program to enroll in honors sections, but the EFC found a widespread belief among engineering faculty that removing high-performing students would negatively affect the non-honors students. Specifically, they felt that the honors courses would reduce the effectiveness of peer mentoring in the classroom by removing students who were most likely to master the material quickly. Many faculty members expressed this concern since peer mentoring was particularly important in the first two years of the engineering curriculum. Consequently, before committing to honors engineering sections as a permanent part of the
curriculum, the EFC and the Curriculum Committee required an assessment after the first fall offering before approving continuation in subsequent years, hence the impetus for our study.

Our study was designed to determine whether the academic outcomes of non-honors students prior to the first offering of honors engineering course sections differed from the academic outcomes of non-honors students after the implementation of the honors program. We did not have a priori information to suggest that one cohort would do better than the other, so we believed it was critical not to assume that the control or test cohort would have achieved better outcomes. The criteria used to evaluate classroom performance came in part from grades available through registration records rather than direct learning objectives from each course. Although the assessment of learning objectives is an ongoing activity of the various engineering programs, most of these assessments are implemented later in the curriculum in order to provide feedback to each of the engineering specialty programs. The assessment of learning objectives in the core courses was beyond the scope of this study. Instead, our study used three measures of its outcomes: grades earned in the core courses themselves; retention as engineering majors; and grades earned in engineering courses taken by students in the semester following the target core courses.

METHODS

To conduct the analysis, we compared the outcomes of two cohorts: students who took at least one of the core sophomore-level engineering courses in fall 2014 (control cohort n = 569) or in fall 2015 (test cohort n = 576). These required sophomore-level classes are Engineering Fundamentals I: Statics; Engineering Fundamentals II: Electrical Circuits; and Thermodynamics. Table 1 provides a description of these courses. We identified the two cohorts by querying the UI registrar database to identify the students in fall 2014 and fall 2015 who had completed at least one of the core courses. (Hereafter, the fall 2014 cohort will be called “control cohort” and the fall 2015 cohort will be called “test cohort.”) We obtained students’ demographic information as well as their UI grade point averages. The University of Iowa granted us approval to use institutional data for our research study and to publish the results externally. We selected five downstream courses to represent courses commonly taken the next semester. The choice of these courses varied by engineering major.
We formulated the analysis around three questions that represented the concerns of the engineering faculty:

1. Did non-honors students in the test cohort achieve different final grades in the three core courses, on average, than non-honors students in the control cohort?

2. Was there a difference in the engineering-major attrition rate for the non-honors students in the test cohort and the non-honors students in the control cohort?

3. Compared with students in the control cohort, did non-honors students in the test cohort achieve different course grades in five selected downstream engineering courses?

Our assessment did not control for the change in faculty teaching the course in 2014 and 2015. With one exception, all the courses were taught by a different instructor the second year. One of the non-honors sections of Circuits in 2014 was taught by the same professor responsible for the honors section in 2015. For the analysis of grades earned in the core courses and the subsequent courses (Analysis 1 and 3), we adopted the assumption of independence and did not try to adjust for the variation introduced by instructors; we only examined whether non-honors students achieved higher or lower course grades in fall 2015 as compared with the fall 2014 cohort. We assumed that instructors of the core courses were teaching the same content, assessing

**Table 1. Core Courses**

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering Fundamentals I: Statics</td>
<td>Vector algebra, forces, couples, moments, resultants of force couple systems; friction, equilibrium analysis of particles and finite bodies, centroids; applications</td>
</tr>
<tr>
<td>Engineering Fundamentals II: Circuits</td>
<td>Kirchhoff’s laws and network theorems; analysis of DC circuits; first order transient response; sinusoidal steady-state analysis; elementary principles of circuit design; analysis of DC, AC, and transient circuits using a circuit simulator.</td>
</tr>
<tr>
<td>Engineering Fundamentals III: Thermodynamics</td>
<td>Basic elements of classical thermodynamics, including first and second laws, properties of pure materials, ideal gas law, reversibility and irreversibility, and Carnot cycle; control volume analysis of closed simple systems and open systems at steady state; engineering applications, including cycles; psychrometrics.</td>
</tr>
</tbody>
</table>
similar skills, and using similar grade assessments. The course grades were on a scale of 0 (F) to 4.33 (A+), and the difference between adjacent letter grades (B and B+, for example) was a third of a grade point.

We calculated descriptive statistics in order to understand the variables related to the performance of non-honors students. We used multiple linear regression to control for variables that could confound the effect of the “Cohort” variable, including gender and cumulative GPA. We used an alpha level of 0.01 for hypothesis tests because these data are observational, and we wanted to establish a more rigorous critical value because we could draw upon several hundred subjects for analysis and detect small differences that are statistically significant. Our statistical tests were two-tailed tests because we did not have a priori information about whether one cohort would achieve better outcomes than the other.

RESULTS

Analysis 1: Examination of Students’ Course Grades in the Core Courses

For this analysis, we computed three different linear regression models, one for each of the core courses. The University of Iowa GPA and gender were introduced as control variables, so the main test was whether non-honors students in the test cohort achieved different final grades after an adjustment for gender and GPA. Each model had the following form:

\[ \text{Course Grade} = \beta_0 + \beta_1(\text{UI GPA at start of term}) + \beta_2(\text{Gender}) + \beta_3(\text{Test Cohort}) + \text{Error} \]

\[ H_0: \beta_3 = 0 \]

\[ H_A: \beta_3 \neq 0 \]

On average, non-honors students in the test cohort of Thermodynamics achieved a course grade that was a third of a letter grade lower than students in the control cohort after controlling for GPA (Table 2). The trend was the reverse for Electrical Circuits, and for Statics the difference between cohorts was not statistically significant. Thus, we determined that this analysis had an overall neutral result for non-honors students in the test cohort.
Analysis 2: Retention

To examine whether a greater proportion of students in the test cohort left the engineering major for another major, we gathered information about students’ primary major at the end of the academic year in which they took one of the fall core courses. All students were engineering majors at the time of taking the core courses, so we computed the proportion of students in each cohort who had left the engineering major for a non-engineering major by the end of the academic year (Table 3). This difference in proportions is marginally statistically significant at the alpha 0.10 level ($X^2(1) = 2.83, p = .0927$), suggesting that it may not be a meaningful difference. Still, a greater proportion of non-honors students from the fall 2015 test cohort left the major, and this could be cause for concern if the trend were to continue.

Analysis 3: Performance in Key Downstream Engineering Courses

To examine the effect of the honors sections on courses taken in the following semester, we computed five different linear regression models, one for each of five downstream engineering courses that students typically took in the spring of their sophomore year. UI GPA and gender were introduced as control variables because (1) UI GPA tends to be the best predictor (in the institutional data) of students’ future course grades and (2) gender is a
confounding variable because female engineering majors had higher GPAs than males, $t(1085) = 6.82, p < .0001$. Thus, the main test was whether non-honors students from the test cohort achieved different final grades after an adjustment for gender and GPA. Each model had the following form:

\[
\text{Course Grade} = \beta_0 + \beta_1 (\text{UI GPA at start of term}) + \beta_2 (\text{Gender}) + \beta_3 (\text{Test Cohort}) + \text{Error}
\]

\[
H_0: \beta_3 = 0
\]

\[
H_A: \beta_3 \neq 0
\]

For the most part, students from the fall 2015 test cohort achieved similar (if not higher) average grades in key downstream courses. Only one of these differences was statistically significant at the alpha 0.01 level after controlling for GPA and gender: non-honors students from the fall 2015 test cohort achieved higher grades, on average, in ENGR:2710 (see Table 4). In three of the other four courses, the average final grade for the fall 2015 test cohort was higher than that of the fall 2014 cohort, but the differences were not significant at the alpha .01 level.

To summarize our results, in two of the three core courses we found, after we controlled for confounding factors, that non-honors students in the test cohort achieved lower final grades, yet the outcome was statistically significant for only one of the courses. In the downstream courses, the non-honors students from the test cohort tended to have better outcomes, but there was only one significant difference for the five courses. Compared with the non-honors students from the control cohort, a modestly greater proportion of non-honors students from the test cohort left the engineering major, but the difference in the proportions was not statistically significant.

**Table 4. Grade Outcomes for Non-Honors Students in Courses the Semester Following the Core Courses Examined in this Study**

<table>
<thead>
<tr>
<th></th>
<th>Fall 2014 Cohort</th>
<th></th>
<th>Fall 2015 Cohort</th>
<th></th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Mean</td>
<td>Std. Dev.</td>
<td>N</td>
<td>Mean</td>
</tr>
<tr>
<td>ENGR:2710</td>
<td>66</td>
<td>2.82</td>
<td>0.66</td>
<td>98</td>
<td>3.11</td>
</tr>
<tr>
<td>ENGR:2730</td>
<td>37</td>
<td>2.32</td>
<td>1.11</td>
<td>33</td>
<td>2.21</td>
</tr>
<tr>
<td>ENGR:2750</td>
<td>85</td>
<td>2.33</td>
<td>0.86</td>
<td>92</td>
<td>2.57</td>
</tr>
<tr>
<td>ECE:2400</td>
<td>38</td>
<td>2.57</td>
<td>1.14</td>
<td>26</td>
<td>2.81</td>
</tr>
<tr>
<td>ECE:2410</td>
<td>42</td>
<td>2.59</td>
<td>0.77</td>
<td>27</td>
<td>2.88</td>
</tr>
</tbody>
</table>
We undertook this study in reaction to engineering faculty’s concern that establishing honors sections of engineering core courses would put at risk the peer-to-peer mentoring that normally occurs in heterogeneous sections of those classes. Several studies have focused on what happens to the peer effect when students are grouped according to academic ability, and they suggest that the formation of a separate group of high-ability students will negatively affect the academic performance of the middle- and low-ability groupings (Betts & Shkolnik; Zimmer). Also, the extensive scholarship on peer effects in education indicates that, at least under certain conditions and for certain outcomes, peer effects have a modest influence on students’ academic performance (for surveys of the research, see Sacerdote, “Peer Effects” and “Experimental”; Epple & Romano), suggesting that separating honors students might negatively affect the academic performance of non-honors students.

Negative consequences, however, did not occur for the courses that were part of our study. Even though the honors sections of the core courses were homogeneous (i.e., almost all honors students), the non-honors sections were not: that is, honors students in our study did not exclusively enroll in the honors sections of the fall 2015 core courses. Instead, because of scheduling conflicts, lack of interest, or possibly intimidation by the novelty of honors sections, many honors students enrolled in the non-honors sections (see Tables A3–A5 in Appendix B for the numbers). The median proportion of honors students in non-honors sections of core courses in the test cohort (fall 2015) was ~17%, with a range from 13% to 36%, compared to the control cohort (fall 2014), where the median proportion of honors students in the core courses was ~31%. In the test cohort of fall 2015, the non-honors students still had a fairly substantial proportion of honors students as classmates in the core courses: enough, we judge, to create a peer effect. Therefore, although we can say that the creation of honors sections of the core courses did not hurt the academic performance of the non-honors students, we cannot conclude that removing all honors students (or some higher percentage) from classes would have no effect on the academic performance of non-honors students.

That said, although studies have indicated that under certain conditions peer effects have a modest influence on students’ academic performance, identifying and then measuring peer effects are difficult. As a result, conclusions
are contradictory, particularly in the case of peer effects on academic performance (see Sacerdote “Experimental”; Feld & Zöllitz). In fact, several recent studies on the peer effect in the classroom at the post-secondary level find that middle- and low-ability students are not disadvantaged by the removal of high-ability students from classes (Martins & Walker; Hoel et al.; Parker et al.). For example, a recent study by Parker et al. at three selective liberal arts colleges in the Pacific Northwest tracks possible peer effects on the academic performance of students who have taken small, discussion-based core courses that have a humanities orientation. Nearly all first-year students must take the core courses, and they have little control over their selection of sections. The study uses as its principle measure of outcomes grades in courses taken after the core courses in order to avoid any effect an instructor’s curving of grades in the core courses may have on peer effects. The data from this careful study show “no support whatsoever for the hypothesis that students in core courses benefit from more able peers” (18). Their belief, based on interviews with the instructors of the core courses that were part of the study, was that the most relevant peer characteristics are not based on academic ability but on students’ "attitude and personality" (23).

Because the results of studies on peer effects regarding academic performance have been mixed and even contradictory, we feel more confident that the results of our own study are not an anomaly and would hold even if the percentage of honors students in the non-honors section went down. Moreover, creating honors sections of classes at the post-secondary level will rarely if ever result in homogeneous groupings of the non-honors sections: high-ability students, whether honors or not, will always be present in the sections.

**CONCLUSION**

The results of our study showed some positive and negative outcomes for the test cohort of non-honors students. For the core courses in the first analysis, the outcomes were mixed as the non-honors students in the test cohort achieved better outcomes in one course, worse outcomes in a second, and statistically the same in the third. Thus, the results for the test cohort were neutral for this part of the study. We also found that non-honors students in the test cohort did not achieve significantly different final grades in four of the selected downstream engineering courses; in fact, they performed better in one course, on average, than the non-honors students in the control cohort. One possible negative outcome could be the modestly greater proportion of students who left the engineering major at the end of the spring semester.
following the fall term in which they took the core courses, but this negative outcome is small and represents a difference of only eleven additional students who left engineering (less than 3% increase from the previous year). Also, the students who changed their major may have done so for reasons not related to their academic performance in the core engineering classes. Thus, the results of our study suggest that the establishment of honors sections of the core courses did not negatively affect the academic outcomes of non-honors students, but we are aware of the limited scope of our study and the need to extend this type of evaluation to at least a five-year period in order to verify our results.

Engineering faculty who expressed concern for establishing honors sections frequently mentioned the risk to effective peer-to-peer mentoring that honors sections posed. Should future offerings of honors sections become more popular among honors students, concern about peer-to-peer mentoring may be more appropriate, but research on peer effects for academic performance has produced mixed and even contradictory results. It may be that, despite common perceptions, high-ability peers do not have a positive effect on the academic performance of middle- and low-ability students. Moreover, high-ability students will always be present in non-honors engineering core courses: either honors students who choose not to take an honors section or high-ability students who are not part of the honors program. Finally, many colleges, including the University of Iowa College of Engineering, offer peer tutoring to first- and second-year students. For all these reasons, we feel confident in our conclusion that implementing honors sections does not adversely affect the academic performance of students in non-honors sections.

REFERENCES


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APPENDIX A

Principles for Teaching and Grading Honors Courses and Principles for Defining Honors Contracts

The following are general principles for teaching engineering courses designated as Honors courses open only to Honors students. See also the comments from the University of Iowa Honors Program (https://honors.uiowa.edu/faculty-staff):

Principle: Honors Courses and Honors Contracts are Designed for Honors Students

• Only Honors students may enroll in Honors designated sections.

• Students enrolled in non-honors sections may request an honors contract but the decision to accommodate the request is up to the instructor. There is no expectation that engineering faculty accommodate these requests. Students are restricted to only one Honors Contract.

Principle: Honors Courses Students Should Not Be Penalized with a Harder Grading Curve

• Courses that include honors sections should not be curved by section because the distributions of letter grades is expected to be different in each section and different than they have been in the past.

• Common exams and coordinated grading among the honors and regular sections of a course is a good way to assure fair grading of all sections of the course.

• In general, we prefer a fixed grading policy rather than a curve so that students are not pitted against each other but instead required to meet the professor’s expectations.

• The course policy for grading fairly must be published in the course and section syllabi.
Principle: Honors Courses and Honors Contracts Obligations
Require Measurably Broader, Deeper, or More Complex
Engagement of the Subject Material

- Homework assignments are more complex.
- Projects are more numerous and require deeper understanding of the problem and may have additional components such as a presentation in oral or written form.
- Honors students may participate in researching and teaching relevant concepts.
- “Work done for an honors contract should be qualitatively different in nature from that already assigned for the class.” (https://honors.uiowa.edu/faculty-staff/honors-contract)

Principle: Honors Courses Embrace Experiential Learning

- Honors students are expected to participate in discussion.
- Active learning is promoted in the classroom while passive learning (books, podcasts) is expected outside of class.
- Instructors take risks with new pedagogy that promotes experiential learning.
## APPENDIX B

### Table A1. Demographic Information for Fall 2014 Cohort

<table>
<thead>
<tr>
<th></th>
<th>Not Honors</th>
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<th>Honors</th>
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<th>Chi-square</th>
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</tr>
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<td>Col. %</td>
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</tr>
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<td></td>
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<td>41.36%</td>
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</tr>
<tr>
<td>Male</td>
<td>324</td>
<td>85.71%</td>
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<td>58.64%</td>
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<td></td>
</tr>
<tr>
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</tr>
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</tr>
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<td>Unknown</td>
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<td>Total</td>
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### Table A3. Distr. of Honors Students in ENGR:2110 Sections

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<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>000A</td>
<td>51</td>
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<td>22</td>
<td>30.14%</td>
<td>73</td>
</tr>
<tr>
<td>000B</td>
<td>78</td>
<td>75.73%</td>
<td>25</td>
<td>24.27%</td>
<td>103</td>
</tr>
<tr>
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<td>73</td>
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<tr>
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<td>13.92%</td>
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### Table A4. Distr. of Honors Students in ENGR:2120 Sections

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<tr>
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<td>308</td>
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<td>98</td>
<td>63.64%</td>
<td>56</td>
<td>36.36%</td>
<td>154</td>
</tr>
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<td>000B</td>
<td>115</td>
<td>85.19%</td>
<td>20</td>
<td>14.81%</td>
<td>135</td>
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<td>000C (Honors)</td>
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<td>2.78%</td>
<td>35</td>
<td>97.22%</td>
<td>36</td>
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<tr>
<td>TOTAL</td>
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<td>65.85%</td>
<td>111</td>
<td>34.15%</td>
<td>325</td>
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<tr>
<td>Fall 2014</td>
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<td>31.13%</td>
<td>106</td>
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<tr>
<td>0002</td>
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<td>68.67%</td>
<td>47</td>
<td>31.33%</td>
<td>150</td>
</tr>
<tr>
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<td>80</td>
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<td>0001</td>
<td>79</td>
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<td>95</td>
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<tr>
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<td>108</td>
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<td>25.00%</td>
<td>144</td>
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<tr>
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</table>
Stimulating the Diffusion of Innovations in Honors Education: Three Factors

Inge Otto and Chris de Kruijff
Leiden University

INTRODUCTION

So far, few articles about innovations in Dutch or American honors programs appear to link their findings to an existing body of research about innovations in higher education in general. Although scholars are starting to make this connection more and more (see Kallenberg; NRO, “Excellentie” and “EXChange”; NWO, “Excellentie” and “EXChange”; Jong), both parties could profit from greater contact. Scholars who study innovations in honors programs could benefit from a comparison of their findings to those in more mature fields, i.e., research about innovation in higher education. At the same time, a full model of innovation in higher education should take into account the findings about honors programs, which are natural innovation labs and thus relevant to research about higher education. Here we focus on factors that promote or block the diffusion of innovations from Dutch honors programs to other components of the Dutch higher education system.
We examine three factors that emerged most frequently in a recent meeting of experts in Dutch honors programs on ‘honours education as a laboratory for educational innovation.’ This meeting was held in Leiden on 2 November 2016; jointly organized by Universiteit Leiden and Rijksuniversiteit Groningen, it attracted thirty-six stakeholders who worked in, or on, honors programs in the Netherlands as teachers, organizers, policy makers, or researchers. In discussions about factors that might promote or block the diffusion of innovations from Dutch honors programs to other places in the Dutch higher education system, these three factors were named most frequently:

• the need for a safe environment in the classroom,
• the need to establish communities of teachers, and
• the need for institutional support.

Various experts in the meeting believed that in order to be able to experiment, honors teachers need classrooms that provide safe environments in order to encourage experimentation and allow innovations to emerge. To stimulate the diffusion of resulting innovations, stakeholders believed that teacher communities and institutional support are crucial. While the meeting was held in the Netherlands and focused on Dutch honors programs, and while the setup and character of honors differ between the U.S. and Europe (see Wolfensberger, Talent Development and Wolfensberger, Eijl, et al., “Laboratories”), the issues raised at the meeting are relevant to honors education anywhere.

Our discussions of the research literature about each of the three factors look beyond the current literature about honors programs as innovation labs and offer clear pathways to ideas from other fields. We also hope to stimulate reflection on the topic among researchers, teachers, organizers, and managers working in the field of honors education by offering questions they can pursue.

**MAIN CONCEPTS**

The central concepts in our study are innovation and diffusion. We rely on Rogers’s definition of these concepts. He defines innovation as

an idea, practice, or object that is perceived as new by an individual or other unit of adoption. It matters little, so far as human behavior is
concerned, whether or not an idea is “objectively” new as measured by the lapse of time since its first use or discovery. The perceived newness of the idea for the individual determines his or her reaction to it. If an idea seems new to the individual, it is an innovation. (12)

In this sense, honors programs function as innovation labs for teachers’ individual experiments with, for instance, pedagogical strategy, technology, and course content. Our study focuses on the spread of new ideas that teachers have developed in honors programs: on the diffusion of innovations. Rogers defines diffusion as

the process in which an innovation is communicated through certain channels over time among the members of a social system. It is a special type of communication, in that the messages are concerned with new ideas. (5)

**STRUCTURE**

We first provide a description of the expert meeting that was held and then dive into the three factors that promote or block the diffusion of innovations. For each factor, we summarize and review the comments made by the stakeholders in the expert meeting and then evaluate them in light of various types of research literature, i.e., Dutch literature about Dutch honors programs as laboratories for educational innovation, publications in *Honors in Practice (HIP)* and the *Journal of the National Collegiate Honors Council (JNCHC)*, and relevant research literature collected from other journals, especially from the fields of higher education and organizational psychology. Finally, we provide a conclusion to our exploration.

**The Expert Meeting**

*The Main Goal and Set-Up*

The goal of the expert meeting was to gather the current ideas, knowledge, and experiences of stakeholders in Dutch honors education on one topic: honors programs as labs for educational innovation. A sub-goal was to decide collectively on potential future steps to foster the position of Dutch honors programs as innovation labs. Three thirty-minute brainstorm sessions were set up to focus on three key questions: (1) Are honors programs labs for educational innovation? Why (not)? (2) What are necessary factors for
honors programs to function as laboratories for educational innovation? (3) What actions can or should be taken in the (near) future?

The brainstorm sessions were organized in a pressure-cooker format. The participants were split into groups of six to eight people on the basis of (a) the position they held in honors programs and (b) the educational institution with which they were affiliated. The groups were as diverse as possible. The composition of the brainstorm groups changed with each new session. Moderators oversaw the discussion sessions while student secretaries took minutes of key issues in an online environment (i.e., Trello, https://trello.com) that was projected on a big screen visible to all present. After the three rounds, the organizers analyzed the key issues listed in Trello. The rough results served as input for a subsequent plenary session.

**The Participants**

Invitations to the expert meeting were sent to all members of the informal honors network of Dutch universities of applied sciences and research universities (*het informele hbo-wo honoursnetwerk*). Virtually all Dutch universities of applied sciences and research universities that offer an honors program have become members of this network. Excluding the organizers, thirty-six stakeholders joined the meeting. They worked in honors education as deans (2), program managers (or “directors”) (5), coordinators (15), teacher-coordinators (2), teachers (3), researchers (6), policy makers (2), or policymaker-organizers (1). The experts were affiliated with any of the nine universities of applied sciences and eight research universities listed in Table 1. As shown, a number of participants were from Leiden University or from Utrecht University. The overrepresentation of these universities is a point to take into account when interpreting the findings.

**Data Collection, Analysis of Discussions, and Results**

Student secretaries created separate online lists of issues that were raised in the discussion sessions. To indicate how often a particular comment was made, we categorized and weighted the arguments based on the number of groups in which a particular type of issue emerged. While a full account of the results of the expert meeting may be found in Otto, Van Haaren, & De Kruif, here we deal only with the stakeholders’ reflections on the second key question raised in the expert meeting: What are necessary factors for honors programs to function as laboratories for educational innovation? We discuss
only the three factors that recurred at the highest number of tables. An important caveat, however, is that the secretaries did not precisely record how many stakeholders at a discussion table (dis)agreed with any argument.

**EVALUATING THE THREE FACTORS IN LIGHT OF PREVIOUS RESEARCH**

The three factors mentioned most frequently in the expert meeting were the need for a safe environment in the classroom, the need to establish a teacher community, and the need for institutional support.

**The Need For a Safe Environment In the Classroom**

Various stakeholders in the expert meeting believed that a safe atmosphere in which honors teachers can experiment is an important factor if honors programs aim to function as labs for educational innovations, as this characteristic quotation indicates:

If we intend to use honors programs as labs for educational innovations that may spread throughout the institution, honors teachers should be offered a safe atmosphere in which they can experiment, i.e., there should be little risk of losing face, and making mistakes should be allowed. (see Otto, Van Haaren & De Kruijf)

**TABLE 1. EXPERT MEETING STAKEHOLDERS**

<table>
<thead>
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<th>University of Applied Sciences</th>
<th>Number of Participants</th>
<th>Research University</th>
<th>Number of Participants</th>
</tr>
</thead>
<tbody>
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<td>Universiteit Maastricht</td>
<td>1</td>
</tr>
<tr>
<td>Hanzehogeschool Groningen</td>
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<td>3</td>
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<td>Hogeschool Rotterdam</td>
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<td>Universiteit Groningen</td>
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<tr>
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</tr>
<tr>
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<td><strong>12</strong></td>
<td><strong>Total</strong></td>
<td><strong>24</strong></td>
</tr>
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</table>
Past publications about Dutch honors programs have often claimed that honors programs offer “a safe (learning) environment” that is important for educational experiments (Wolfensberger et al., “Honours Programmes, Sources” 15; Wolfensberger et al., “Universitaire” 102; Wolfensberger et al., “Honours Programmes as Laboratories” 136; Wolfensberger et al., “Laboratories” 164). In support of these arguments, these authors say that Dutch honors programs have at least four traits that make them safe areas for teachers who wish to experiment:

1. Honors students are usually selected, e.g., based on grades, motivation, etc., which means that a highly motivated and committed group of students is available.

2. In comparison to regular study programs, teachers typically get to work with smaller groups of students.

3. Since honors programs often constitute a set of extra activities that students do on top of their regular study programs, the consequences of a failed experiment appear relatively small.

4. Making mistakes simply is allowed in the programs.

What is not described in the aforementioned literature but was pointed out by the stakeholders is that if students are unaware of a teacher’s experimental approach in honors, they may—through their expectations and through the behavior they display when those expectations are not met—form a hindrance to the teacher who tries to be innovative. Honors students who are used to excelling in their regular programs and who want to excel in their honors courses may feel that they really need the teacher to take the lead. The assumption that honors students are typically “willing to embrace the unpredictability of an experimental course (Nix, Etheridge, & Walsh 41) was a concern rather than a certainty among various stakeholders in the expert meeting.

Dutch publications on innovation in higher education recognize the need for safety for employees as a factor for change. Kallenberg builds on the literature of change management and describes Kotter’s eight steps for change as relevant for successful innovation in higher education (139; see also Kotter). Step 4 in Kotter’s model is “communication for buy-in,” which argues that making an environment open to change can be created only when participants feel safe. Studies from organizational psychologists also suggest that higher levels of psychological safety may strengthen individuals’ drive
to experiment. Amy Edmondson explains psychological safety as the degree to which an employee feels safe to engage in extra-role behaviors, in interpersonal risk-taking, at work (for two recent meta-analyses of this topic, see Edmondson & Lei and Frazier et al.). High levels of psychological safety foster proactive work behaviors, and experimentation in honors is a type of proactive work behavior. Bindl and Parker define proactive (work) behavior as

self-directed and future-focused action in an organization, in which the individual aims to bring about change, including change to the situation (e.g., introducing new work methods) and/or change within oneself (e.g., learning new skills to cope with future demands). (569–70; see also DuBrin 2–3)

According to this line of thought, a stronger feeling of psychological safety could encourage honors teachers to experiment. Edmondson & Lei further propose that “managers must work to create a climate of psychological safety (...) for people to feel comfortable speaking up with ideas or questions—an essential aspect of organizational learning—without fear of ridicule or punishment” (39).

An honors teaching setting characterized by student ownership requires teachers to engage in extra-role behavior, a type of interpersonal risk-taking, in which they might fail and run the risk of losing face or harming their reputation among both students and peers. Consequently, an important question is to what extent Dutch honors programs constitute psychologically safe environments for honors teachers.

While scholars claim that making mistakes is allowed in honors, practice seems to prove otherwise. Various stakeholders expressed the need for more tolerance of failure. Also, while the consequences of a failed experiment should be rather small (Wolfensberger et al., “Honours Programmes” and “Laboratories”), the stakeholders point out that teachers may suffer negative consequences such as loss of face. The stakeholders are calling for “a psychologically safer group climate,” such as what Edmondson describes as a group atmosphere based on high levels of “trust, respect for each other’s competence, and caring about each other as people” (375).

The idea of a safe group climate also touches on the generally accepted observation in change management literature that clear communication about change is one of the success factors, which Kotter described as “communicate buy-in.” Various stakeholders raised a similar point:
If we intend to use honors programs as labs for educational innovations that may spread throughout the institution, teachers and organizers of honors programs should speak frankly to honors students about this. (qtd. in Otto, Van Haaren & De Kruif, forthc.)

Communication about the experiment—e.g. explaining the experiment in connection with the learning goals of the students involved—might reduce the chance that students resist experimentation.

In order to ensure that honors programs are optimal environments for educational experiments, we can learn from expertise in innovation in higher education, change management literature, and insights from organizational psychology.

**Directions for Future Research**

If we suppose that one of the goals of honors programs is to offer labs for educational innovation by constituting safe environments that welcome educational experiments, the following research activities seem worthwhile:

• Meta-analysis of the factors that potentially affect—positively and negatively—the degree of safety in honors programs, taking into account that we wish them to be innovation labs;

• Measuring the level to which we may consider Dutch honors programs or modules safe labs for experimenting at present;

• Measuring the effects of the factors found in experimental set-ups.

**The Need To Establish a Teacher Community**

Several stakeholders in the expert meeting made the following remark:

A community for teachers who use honors education as labs for educational innovations and for other teachers could facilitate the spread of successful innovations throughout the institution. (see Otto, Van Haaren & De Kruif)

The participants in the expert meeting suggested that these supportive networks for teachers could easily arise as a consequence of, for instance, (a) the organization of expert meetings, (b) the creation of a central online discussion forum for honors teachers, or (c) job-shadowing opportunities or internships. In addition to these examples, one stakeholder proposed that
honors organizers and teachers could turn to external experts, e.g., documentary makers (see Irwin) or professional writers, for help with dissemination of innovative practices from honors programs.

A review of the online volumes of *Honors in Practice* (HIP) and the *Journal of the National Collegiate Honors Council* (JNCHC) suggests that little has been published about networks of honors and non-honors teachers. Scholars have typically looked into honors communities that involve students, staff, and sometimes parents (Huggett; Koh et al.; Riek) as well as “student learning communities” that involve students solely (Swafford; Reichert; Pouchak et al.). The literature about Dutch honors programs likewise reports on communities in Dutch honors programs consisting of students, teachers, and professionals (Ginkel et al., “Building” and “Fostering”; Wolfensberger & Pilot, “Uitdagingen”). The honors communities referred to in HIP, JNCHC and the studies of Dutch honors programs are student-centered: their main purpose is to foster the talent development and learning of students. Any special attention paid to teachers in these articles focuses on how they can play a role in promoting community building among students (see ten Berge & van Eijl 74; Ginkel et al., “Building” 206). We found no research specifically on the role that communities of honors teachers can play in the diffusion of innovations from honors programs.

The idea that communities can aid in the diffusion of innovations is widely supported by research on higher education in general (see the meta-study of Smith, “Lessons,” for an overview). Social networks play a crucial role in the diffusion of innovations. Rogers, in his book *Diffusion of Innovations*, for instance, repeatedly points out that “diffusion is a social process, with an innovation moving through interpersonal networks’ (297). As defined by Rogers, “diffusion is the process in which an innovation is communicated through certain channels over time among the members of a social system. It is a special type of communication, in that the messages are concerned with new ideas” (5).

In this respect, insights into social network analysis might be relevant. Individuals are more likely to take risks if they know that peers are also taking the same risks (Rogers; Valente). Also, Kezar, based on the work of Coburn & Russell and of Cole & Weinbaum, points out that “existing relationships are more influential than relationships created as part of a change initiative. Therefore, the more that change agents can build upon existing relationships for a change process, the more likely they are to be successful. This is not to suggest that learning communities or other communities created for
innovation cannot work but that they have proven less successful than an existing community where trust and familiarity already exist (Moolenaar & Sleegers 2010)” (99–100). Furthermore, Kezar explains the roles of “central actors” and “opinion leaders” in social networks (101). Central actors have the most ties to other actors in an organization. Opinion leaders are people who individuals say would influence their choices and attitudes in the network (Valente). People often wait to adopt a change until an opinion leader has adopted it. Earlier, Pilot describes how, at one point in time, a group of “the most capable” teachers at Utrecht University was invited to teach in the newly founded Utrecht University College (12). He reports that these teachers, who he says “had real authority among their peers” (12), eventually brought back innovations from the University College to the wider university. The findings of both Kezar and Pilot imply that teaching communities should consist of change agents who have strong networks or relationships within faculties and throughout the institution in order to act as diffusors of innovation. Such networks are already emerging in the Netherlands. A first example is the Teaching Academies founded at Utrecht University and Leiden University. Another example is the teaching professionalization modules for honors teachers offered at the University of Utrecht and Hanze University of Applied Sciences Groningen (Wolfensberger & Pilot 128; ten Berge & van der Vaart; ten Berge & Scager 3).

**Directions for Future Research**

A key question that emerges from our study is whether the formal establishment of teacher communities is desirable as a means for the diffusion of innovations throughout the institution. With the help of research carried out at the national level, we could try to find the answer in the following ways:

- Meta-analysis of the factors that affect (positively or negatively) the diffusion of innovations via professional communities;
- Measuring to what extent current teacher networks diffuse innovation throughout the institution according to teachers;
- Identifying types of dissemination activities that could be organized in teacher communities in order to effectively foster diffusion from honors programs throughout the educational institution.
The Need For Institutional Support

Some stakeholders in the expert meeting believe that institutional support is an important factor if honors programs intend to function as incubators and sharing points for educational innovations:

If we wish to use honors programs as labs for educational innovations that may spread throughout the institution, the institution should recognize and support teachers, coordinators and others involved in honors education, also through means. (see Otto, Van Haaren & De Kruif)

Virtually no studies about innovations in Dutch honors programs have addressed the role of institutional support in detail. Only Wolfensberger et al., in “Laboratories for Educational Innovation,” make a general statement that taking innovation as an aim is one of “at least four characteristics of [Dutch] honors programs [that] are important to their spin-off effects” (161). The ExChange project (see “Excellentie” in either NRO or NWO 2017 for more information)—a project with a big team of researchers led by Wolfensberger from the Hanze University of Applied Sciences—may indirectly provide future insight on the topic by using so-called ExChange teams that include people working in higher education management positions. The ExChange teams, which apart from management include teachers and students, use a design-based approach to implement interventions to improve the transfer of a culture of excellence within higher education institutions (de Jong et al.). Since the first results of the ExChange project have not yet emerged and since this project does not specifically focus on the role of institutional support, studies about innovations in Dutch honors programs that deal with the role of institutional support appear to be unavailable at present.

When we broaden the scope of our search and include literature about honors programs elsewhere in the world, we meet with almost no results. An online search in JNCHC and HIP that we carried out in January 2017—searching for terms like encourag*, recogni*, and support* in the titles, abstracts or subjects of articles—suggests to us that little has been published about the link between institutional encouragement, honors teachers’ desire to experiment, and the likelihood that resulting innovations get used more widely. While the search in both journals did yield lists with articles—e.g., a search term like encourag* arose in the abstracts of 24 JNCHC articles—when read in detail, nearly none of the articles actually dealt with our topic. The term institutional support was mentioned explicitly in several articles in JNCHC but...
solely in general discussions about “the economy of honors,” i.e., about financial support for honors programs (see Andrews; Railsback).

Two publications in HIP, however, did come close to our topic. Dean & Jendzurksi made a case for the celebration of quality teaching to promote academic excellence (183, 188), providing ideas based on their program at West Chester University (186). While the article does not focus on the potential of honors teachers as innovators, it does deal with institutional support for teachers. In 2007, Carnicom et al. focused on one way that honors can serve as a lab for educational innovation, encouraging faculty to experiment with integrating the latest technology into the classroom.

The ideas of Carnicom et al. seem in line with previous literature about innovations in higher education, demonstrating that the availability of resources such as money makes it more likely that innovation in teaching and learning takes place (Hannan & Silver). Smith, in her metastudy “Lessons Learnt,” similarly concludes that “money to support the innovation helps sustain interest and enthusiasm” and may help it spread (174). The experts’ point about “providing institutional support through means” appears in agreement with the literature we found. In the Netherlands, the importance of financial support is being recognized through various channels. At the university level for instance, fellows of the Leiden Teachers’ Academy are rewarded EUR 25,000 for their innovative projects. At the national level, the Dutch subsidy program “Comenius” financially supports educational innovation through faculty members.

The stakeholders’ call for a more affective, emotional type of support from their institutions also seems justifiable if we consider the work of earlier scholars in the field of innovations in higher education, who have suggested that encouragement, recognition, or interest from senior staff and higher administrators fosters innovation in teaching and learning (Hannan & Silver). This kind of support improves the chance both that staff will devote time to innovative educational practices and that innovations will spread successfully (Smith, “Cultivating” and “Lessons Learnt”). Even a small case study like that of Hockings, who explored the barriers that one university lecturer faced when he tried to adopt a student-focused teaching approach, points out that the support and commitment of senior managers is crucial in experimentation and dissemination of findings (323).

That senior support may be crucial in the diffusion phase of innovation is also reflected in a study by Davis et al., who report that “administrative support emerged as most important in the last stage of the innovation process”
stimulating thE diffusion (583), affecting the chance that the innovation would continue to be used successfully (571). Kezar remarks that change frequently entails taking risks, and “people are more likely to take risks when they trust the individuals who are asking them to engage in risk-taking behavior” (102). She also refers to a study by Moolenaar and Sleegers, who examined the social networks of 775 educators at about fifty schools. These scholars found “a strong relationship between trust and the development of an innovative climate that would be open to change” (Kezar 102).

Directions for Future Research

We currently know very little about the effects of institutional support on the diffusion of innovations from Dutch honors programs except that it is a topic worthy of further study. As a next step, we imagine researchers collaborating with honors teachers and administrators as well as with higher administrators to answer questions like the following:

- What type of institutional support is likely to encourage honors teachers to experiment?
- What type of institutional support is likely to inspire or encourage honors teachers to disseminate their innovations?
- What types of institutional support are most effective in particular stages of the innovation and diffusion process? (see Davis et al.; Rogers; Gannaway et al.).

CONCLUSION

We believe that the issues we have raised are relevant to any type of honors education, regardless of the fact that the expert meeting took place in the Netherlands and focused on Dutch honors programs or that the set-up and character of honors differ between the U.S. and Europe. By considering the three factors that emerged from the expert meeting in light of research about innovation in higher education, organizational psychology, and business management, we were able to contextualize these factors and evaluate their relevance. We hope that some readers may feel inspired to adopt any of the starting points for future research we offer, perhaps especially the ones that relate to feeling safe in being experimental. A comfortable, reflective network of peers and the emotional as well as the practical support of higher administrators are keys to creating a safe environment and an innovative culture.
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Moving from Forecast to Prediction: How Honors Programs Can Use Easily Accessible Predictive Analytics to Improve Enrollment Management

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INTRODUCTION

Most enrollment management systems today use historical data to build rough forecasts of what percentage of students will likely accept an offer of enrollment based on historical acceptance rates. While this aggregate forecast method has its uses, we propose that building an enrollment model based on predicting an individual’s likelihood of matriculation can be much more beneficial to an honors director than a historical aggregate forecast. Many complex predictive analytics techniques and specialized software can build such models, but here we show that a basic approach can also be easily accessible to honors directors where a small amount of data collection and
basic spreadsheet software allow them to capture most of the benefits without needing the skills of a data scientist.

The first step comes in understanding the difference between a forecast and a prediction. A forecast is an estimate of a future event, generally in aggregate form. For example, today I might forecast that our ice cream store will likely sell 1,000 scoops of ice cream based on weather, time of year, day of the week, and regional events—all useful information for staffing and inventory management as well as profitability analysis. Historically, an honors administrator might use this approach to predict the total number of students matriculating to the university or to an individual program.

However, with predictive analytics one can acquire even more detail that could be useful in a setting like an honors program where not just the total number of “customers” matter but which ones will create a well-rounded, diverse honors program with students from multiple backgrounds (Siegel).

In the ice cream case, a predictive analytics example might predict not just how many total ice cream scoops might be sold but how likely each individual is to buy ice cream. Deeper analysis might predict the type of ice cream, time of day customers might come, and how frequently they might visit the store. Predictive analytics might also lead to prescriptive analytics, where you learn what might be done to persuade someone who was not planning to buy ice cream to do so, e.g., what it might take to change a consumer’s mind so that she will buy ice cream today or how we can get her to buy two scoops instead of one or to bring a friend.

This type of predictive and prescriptive analytics has helped many organizations improve their efficiency and effectiveness (Siegel), and we believe that honors directors can also use it. In this approach, each potential honors student would receive an individualized probability score reflecting his or her likelihood of accepting an offer of admission. This score could still be aggregated into a direct forecast of how many students would likely attend, but it would also show the likelihood that any individual student would attend. The scores could predict how many from a certain group (e.g., science majors or Hispanic students) are likely to attend. This information could help strategically determine scholarship offers as well as the staff’s time commitments to recruitment and follow-up activities.

BACKGROUND

An increasing amount of data is being collected about potential students when they apply for admission to a university. High school GPA, SAT scores,
and extracurricular activities are all part of the admissions application along with essays and other pieces of data about the student. Traditionally, this information has been used to determine if a student is prepared for university or qualified to attend (Mariz). However, developments in research methodology and technical capabilities have also made this information valuable in recruiting efforts and in extending the optimal number of enrollment offers.

University programs that depend on enrollment and completion can harness data analytics to manage yield and predict matriculation rates, significantly improving efficient use of resources. Like most programs, the honors program must sustain itself by predicting enrollment, attendance, and completion. While honors directors can examine applicant information to predict the best pool of potential students, the task may seem too daunting and time-consuming given their numerous other responsibilities. In addition to teaching a class or two, many honors directors manage entire programs and act as liaisons to others. Also, most honors directors are tasked with optimizing scholarship and resource usage. Directing scholarship awards to the students most likely to attend, while at the same time leveraging scholarship offers to attract the most qualified students, enhances an honors program’s ability to enroll the most sought-after talent.

Factors Affecting Enrollment Decisions

Predicting an individual’s overall likelihood of accepting an enrollment offer is precarious. Students who have not committed to a university usually have an idea of where they would like to go, but a scholarship offer can persuade them to enroll elsewhere. A 2013 study conducted by the University of California at Los Angeles concluded that financial aid offers affected the attendance decisions of 46 percent of the incoming freshmen, with 43 percent citing the overall cost of attendance as the main factor in their decisions (Pryor et al.). Honors directors thus play a pivotal role in attracting top students through scholarships and financial aid. Knowing a student’s likelihood to accept an offer of admission to a given honors program may impact the strategic use of financial aid to build the best incoming honors class.

Using Analytics to Predict Enrollment

Historically, honors directors have relied on personal interviews, professional references, and written statements of intent in determining the likelihood of a student’s accepting an offer. However, current capabilities
within the field of analytics allow more informed decisions about potential acceptance. Diverse data sets describing the high schools and geographic locations of subject students can connect student demographics with socio-cultural demographics. Matching these independent pieces of data to the characteristics of the university allows for a more granular examination of who is likely to attend and why.

Examining the characteristics unique to a particular honors program can also allow deepened predictive capabilities in the admissions process. For example, honors students tend to be goal-oriented academic achievers with specific reasons for choosing a university. Using a combination of each discrete piece of data, honors directors can estimate the probability of a student’s accepting an offer, thus optimizing enrollment by improving yield management and recruiting efforts.

The Example Study

To illustrate the value of predictive analytics, our study uses data from a mid-sized regional university in the southeastern United States. At the time of this study, the university housed an honors program of approximately 800 students, with 150 entering freshmen and 80 internally recruited freshmen and sophomores in later semesters. The average student who completes the honors program has over a 3.45 GPA.

We use this example to describe the basic statistical and analytical methods employed in an analysis of factors that influenced accepted honors students’ decisions to enroll. Other universities, honors directors, or similar programs can use the same basic process to predict more effectively enrollment rates among accepted students. The findings in this study show the importance of data integration in university recruitment and financial aid operations as well as the applicability of one university’s methods to other institutions.

THEORETICAL BACKGROUND

Enrollment Management

Universities and honors programs struggle with extending enrollment and scholarship offers to students who are unlikely to attend based on a multitude of factors, including acceptance from a first-choice school, financial aid availability, and a student’s preferred major (Pryor et al.). Enrollment management is the strategy used by universities and other institutions in estimating
an optimal offer pool that efficiently distributes financial aid opportunities and deploys effective recruitment efforts; it is an institutional response to the challenges and opportunities that recruiting and retaining the best student body composition presents to a university’s financial health, reputation, and student quality (Baker).

Along with maximizing the academic profile of incoming student bodies, directors of enrollment management set goals such as increasing the population of the university, striving to diversify the university based on factors like race and socioeconomic status, and assuring availability of adequate housing and student affairs resources for incoming students (Martin & Moore). In pre-enrollment periods, the two main facets of enrollment management are recruitment and yield management. Recruitment encompasses a university’s effectiveness in attracting desired students, and yield management describes the process by which enrollment directors optimize offer pools.

**Recruitment Efforts**

Honors and enrollment management directors must improve their recruiting efforts in order to attract the best students to their universities. As students are increasingly applying to schools that are farther away geographically, directors must take care about where they place recruitment resources (“Trends in Higher Education”). Some large universities with sufficient funding resources expend more resources for recruiting nonresident students in order to find potential high-quality freshmen and students who can afford to pay out of pocket (Jaquette & Curs). The mad dash for nationwide and worldwide recruitment creates intense competition among universities. Aggressive recruitment efforts through online and social media advertising, large financial-aid and scholarship packages, and value proposals based on a school’s ranking are vital to capturing the greatest number of ideal students from across the globe (Burd).

Moreover, students in the United States are showing a declining perception of the value of a college degree (“Trends in Higher Education”). As potential university students become more skeptical about the value of a college degree, honors directors must become more creative in recruitment methods to regain potentially lost students. More precise and effective recruitment efforts also provide value to honors directors through cost reductions and resource optimization.

Given the importance of effective recruiting, honors directors should directly interact with students to communicate the competitive advantages
that their university enjoys over others (Ross & Carnes). As universities compete to differentiate themselves to potential students, recruiters must be dynamic in how they attract their desired candidate pools. Students’ decisions on a choice of college are most likely influenced by campus-sponsored individual tours of universities along with the availability of early application benefits (Fischbach). Knowing the probability that a particular student or demographic of students will accept an enrollment offer is essential in deploying these recruitment techniques and can be improved by leveraging the data provided by potential candidates.

**Yield Management**

For honors directors, one of the greatest challenges is choosing the best offer pool with respect to scholarship and housing availability, demand projections, and the desired number of incoming students (Netessine & Shumsky). The precision with which honors programs make admissions offers is crucial in determining the success of the next class of students. Extending too many offers results in resources not being sufficiently distributed among the students and decreasing the value of the education the university provides (Green). In contrast, offering admission to too few students harms the competitive nature of the honors program, which should provide a close-knit community of students who perform better academically than their counterparts and go on to receive valuable research opportunities and internships (Cosgrove). Honors programs also incentivize students to achieve better grades and to participate in more challenging classes and extracurricular activities than their peers.

**Example Student**

To illustrate the process of predicting the probability that a student will enroll after an offer of admission, we will describe the individual characteristics of a sample student. The values for each characteristic are random. The sample student will have the following characteristics:

- HSGPA: 4.2
- SAT Score: 1380
- Intended Major: Accounting
- Residency Location: 1 (from the region in which the university is located)
• Gender: Female
• Race: African American
• Socioeconomic Status: From school with 30% free or reduced lunches.

**Academic Credentials**

This honors program in this case study determined an academic performance threshold that seemed reasonable and contained most of the students who had previously accepted enrollment offers from the institution. The academic performance threshold is simply a way to define the high school academic performance of incoming students. Students who held academic credentials higher than this threshold most likely would choose to attend different types of institutions, perhaps with higher academic requirements for acceptance. The threshold used in this case study was derived by conducting simple analysis on the distributions of GPA and SAT scores from students who accepted enrollment offers. The purpose of this stage in the case study was to provide the honors program with a target audience that would be most responsive to scholarship and enrollment opportunities. The program would also need to recruit more students above the threshold in order for the target number of students to attend.

**GPA**

Grade point average has historically been highly predictive of a student’s performance in higher education and is an important component of all admissions criteria, especially for honors admissions. Not only do high school GPAs provide insight into students’ capabilities, but they also indicate the amount of effort that students apply to their studies (Belfield & Crosta).

The honors program in this case study conducted an analysis of the range of GPAs among applicants who received enrollment offers. First, we had to partition the data into ranges, or bins, for analysis, and we tried to pick ranges that would have enough students to be significant but would be small enough to provide predictive power and granularity. Bin ranges were created with the primary goal of maintaining range uniformity and the secondary goal of having a similar but significant number of students in each bin.

Bin ranges are important because they divide the data into describable categories that contain information about a certain subsection of the data. For honors directors to determine their optimal bin ranges, they first find the distribution of GPAs among their accepted applicants. Some universities
experience a bell-curve type of distribution in which most of the applicants’ GPAs are near the average while others observe skewed distributions with high or low GPAs.

Directors can create bins that contain uniform or cut-off ranges of GPAs while maintaining a similar number of students in each. Sorting the bin ranges in ascending order in a spreadsheet allows directors to easily determine the acceptance rates of each range. After sorting the spreadsheet so that each range is in the correct order, directors can find the acceptance probabilities for students in each range by averaging the students’ acceptance responses. With 0 denoting a student who did not accept an enrollment offer and 1 signifying a student who did, averaging the series of 0’s and 1’s gives honors directors the acceptance probabilities of each range, which is simply the proportion of students in each sub-category.

Table 1 shows the results of the bin range analysis conducted by the subject honors program. As the applicant pools for each honors program are different, honors directors who conduct similar analyses may experience different results. For this honors program, the first two bin ranges are extended 0.19 points to capture enough applicants in each. However, bins 3–10 each contain a uniform GPA range of 0.09 points. Column 3 indicates the number of students who earned a GPA within each range, and the fourth column contains the percentage of students within the range who accepted enrollment offers from the honors program. Percentages in Column 4 represent the

<table>
<thead>
<tr>
<th>Bin</th>
<th>GPA</th>
<th>Offers</th>
<th>Acceptance Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3.81–4.0</td>
<td>38</td>
<td>50.0%</td>
</tr>
<tr>
<td>2</td>
<td>4.01–4.2</td>
<td>39</td>
<td>28.2%</td>
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<td>3</td>
<td>4.21–4.3</td>
<td>36</td>
<td>50.0%</td>
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<td>4</td>
<td>4.31–4.4</td>
<td>37</td>
<td>21.6%</td>
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<td>5</td>
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<td>28</td>
<td>32.1%</td>
</tr>
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probability that a student within that GPA range will enroll in the university. As GPA is not the only factor affecting predicted acceptance, these probabilities will be combined with probabilities derived from other factors to find cumulative individual probabilities. Honors directors can replicate the table above to summarize their results.

For our example student, we can calculate the probability of acceptance given her GPA of 4.2. Table 1 indicates the probability of her acceptance as 28.2% (bin 2). The bin from which this probability is derived is highlighted in Table 1 above, as will be true for the example student in all the Tables.

**SAT Score**

Compared to GPAs, some see SAT scores as a more direct measurement of an incoming freshmen’s academic ability (Hannon & McNaughton-Cassill). Like high school students with high GPAs, students who earn high SAT scores are more likely to attend more competitive schools, leaving the middle- and lower-tier schools to compete aggressively for students with high SAT scores who do not attend upper-tier universities (Camara & Echnertacht). Most universities can improve their recruitment techniques and resources for future incoming classes by knowing the probabilities of acceptance by students who earn certain SAT scores.

The process of creating the analysis for SAT scores and ranges is identical to the technique used for GPAs. First, honors directors can develop their own bin ranges based on the distribution of their data. Then, averaging the series of 0’s and 1’s in each bin range gives the probabilities of acceptance by students who earn SAT scores within those ranges. Table 2 shows the bins and the probabilities found by the subject honors program. Again, this table is merely a representation of the data that can be found by other programs, so the results will vary for each institution. The bin ranges were chosen to capture the best ranges with a similar number of observations in each. In the final analysis of individual probabilities, the percentages in this table will be combined with the GPA probabilities along with the percentages in the demographic variables.

For our example student, we can calculate the probability of acceptance given her SAT score. She had an SAT score of 1380, so the probability of her acceptance is 18.1% (bin 5).
Demographic Information

Gender

The first demographic variable that honors directors can leverage is gender. While there is little informative potential in studying gender distributions, directors can optimize their offer pools based on how many students of each gender they wish to attract in each class. As female students are the most numerous on most college campuses, including the one in this study, honors directors can adjust their populations by determining the probabilities of acceptance for each gender. According to the subject university’s diversity website, 56% of the student population was female during the fall 2016 semester. Table 3 shows the genders and their probabilities for the subject honors program.

Honors directors can divide the dataset into male and female categories to average the acceptances. With 0 meaning a student did not accept and 1 meaning a student did, the average of the 0’s and 1’s gives the probabilities listed in the table. This university sees that females are more likely to accept

<table>
<thead>
<tr>
<th>Bin</th>
<th>SAT Score</th>
<th>Offers</th>
<th>Acceptance Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1150–1300</td>
<td>61</td>
<td>49.2%</td>
</tr>
<tr>
<td>2</td>
<td>1300–1330</td>
<td>42</td>
<td>23.8%</td>
</tr>
<tr>
<td>3</td>
<td>1330–1350</td>
<td>83</td>
<td>32.5%</td>
</tr>
<tr>
<td>4</td>
<td>1350–1370</td>
<td>57</td>
<td>26.3%</td>
</tr>
<tr>
<td>5</td>
<td>1370–1390</td>
<td>83</td>
<td>18.1%</td>
</tr>
<tr>
<td>6</td>
<td>1390–1420</td>
<td>83</td>
<td>32.5%</td>
</tr>
<tr>
<td>7</td>
<td>1420–1460</td>
<td>67</td>
<td>25.4%</td>
</tr>
<tr>
<td>8</td>
<td>1460–1600</td>
<td>42</td>
<td>16.7%</td>
</tr>
</tbody>
</table>

Note: For Clarity, ACT Scores Have Been Converted to SAT Equivalents.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Offers</th>
<th>Acceptance Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>332</td>
<td>29.2%</td>
</tr>
<tr>
<td>Male</td>
<td>186</td>
<td>27.4%</td>
</tr>
</tbody>
</table>
enrollment offers, but other programs may experience different results. The individual probabilities of male and female students will be combined with their academic credential probabilities along with the rest of the demographic variable probabilities.

We can calculate the probability of the example student’s acceptance based on gender as 29.2%.

**Race**

Studying applicant pool race distributions provides a similar value as gender distributions. As campus diversity and inclusivity continue to emerge as important issues in college programs, directors can use acceptance probabilities to reach target populations (Hurtado). The example university’s racial distribution is heavily concentrated in White students, who made up 84% of the student population in the fall 2016 semester. The next most represented racial group was Hispanics, who represented 4% of the student population. Table 4 shows racial distribution represented in the honors applicant pool and the probabilities that each would accept an enrollment offer. In the final cumulative probabilities, race will be included among the demographic variables, which will be weighed with the probabilities derived from the academic credentials.

Our example student is African American, so the probability that she will accept enrollment is 33.3%.

**Major**

The intended majors of honors applicants can also provide valuable information in predicting individual acceptance rates. As some universities

<table>
<thead>
<tr>
<th>Race</th>
<th>Race Code</th>
<th>Offers</th>
<th>Acceptance Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>0</td>
<td>455</td>
<td>28.8%</td>
</tr>
<tr>
<td>African American</td>
<td>1</td>
<td>9</td>
<td>33.3%</td>
</tr>
<tr>
<td>Asian</td>
<td>2</td>
<td>14</td>
<td>7.1%</td>
</tr>
<tr>
<td>American Indian</td>
<td>3</td>
<td>13</td>
<td>23.1%</td>
</tr>
<tr>
<td>Hispanic/Mixed</td>
<td>4</td>
<td>18</td>
<td>27.7%</td>
</tr>
<tr>
<td>Hawaiian/Pacific Islander</td>
<td>5</td>
<td>1</td>
<td>0.0%</td>
</tr>
</tbody>
</table>
are renowned for particular programs of study, the probability that a student will attend a university based on major is a vital piece of information. Renowned programs are a university’s points of pride, and directors recognize their prominence in creating higher acceptance rates. The university in this case study has a number of points of pride that anecdotal data suggest attract students:

- **Accounting**: This university’s accounting students consistently boast some of the highest CPA pass rates in the nation. Accounting firms in the southeastern region of the United States aggressively recruit students from this school.

- **Anthropology**: This university maintains the largest undergraduate-only anthropology program in the state, and it is ranked third among the state’s anthropology programs.

- **Economics**: The economics program is globally ranked in experimental and environmental economics. Economics students consistently win regional and national tournaments on economics topics.

- **Sustainability**: As the university is located in a mountainous region that affords opportunities to observe the natural environment, many students attend for the sustainability programs, which are nationally ranked on affordability and value measures.

- **Geology**: Like the environmental science program, the geology program attracts students who appreciate environmental education and outdoor activities. Geology majors are highly competitive in obtaining employment after graduation.

- **Math Education**: Founded as a normal/teacher’s school, the university has a long reputation of maintaining a premier education program in the region. This program produces the most high school math teachers in the state.

- **Music Education**: The music program contains the state’s Band of Distinction, an award it has earned consistently over the past few decades. Graduates from this program enjoy almost 100 percent job placement.

Determining points of pride is achievable through a good understanding of a university’s strengths and weaknesses. For an honors director new to a
particular school, looking at the university’s promotional materials and talking to faculty, parents, and prospective students might help with this process.

There may also be majors or programs that could make a student less likely to enroll. For example, a performing major that does not offer what students are looking for decreases the likelihood of their attendance. The example university does not offer an engineering degree, so students who want to be engineers are unlikely to attend. Likewise, an intended major in marine science is a negative indicator given the distance to the ocean and lack of a course of study in that area. Undecided majors might tell us something else. Again, the historical data can give a probability for each group of intended majors.

Table 5 shows a few of the university’s departments, the number of students in each, and the probabilities of acceptance for each. The points of pride

<table>
<thead>
<tr>
<th>A few Specific Areas</th>
<th>Broader Departments Taxonomy</th>
<th>Offers</th>
<th>Acceptance Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting</td>
<td>7</td>
<td></td>
<td>14.3%</td>
</tr>
<tr>
<td>Anthropology</td>
<td>9</td>
<td></td>
<td>44.4%</td>
</tr>
<tr>
<td>Engineering</td>
<td>11</td>
<td></td>
<td>0.0%</td>
</tr>
<tr>
<td>Sustainability</td>
<td>16</td>
<td></td>
<td>31.3%</td>
</tr>
<tr>
<td>Geology</td>
<td>4</td>
<td></td>
<td>25.0%</td>
</tr>
<tr>
<td>Math, Secondary Education</td>
<td>7</td>
<td></td>
<td>71.4%</td>
</tr>
<tr>
<td>Music Education</td>
<td>14</td>
<td></td>
<td>50.0%</td>
</tr>
<tr>
<td>Undecided</td>
<td>50</td>
<td></td>
<td>20.0%</td>
</tr>
<tr>
<td>Education</td>
<td>25</td>
<td></td>
<td>32.0%</td>
</tr>
<tr>
<td>Business</td>
<td>32</td>
<td></td>
<td>25.0%</td>
</tr>
<tr>
<td>Theoretical Sciences</td>
<td>117</td>
<td></td>
<td>24.8%</td>
</tr>
<tr>
<td>Applied Sciences</td>
<td>33</td>
<td></td>
<td>36.4%</td>
</tr>
<tr>
<td>Fine Arts</td>
<td>26</td>
<td></td>
<td>38.5%</td>
</tr>
<tr>
<td>Applied Arts</td>
<td>9</td>
<td></td>
<td>44.4%</td>
</tr>
<tr>
<td>Environmental Science</td>
<td>11</td>
<td></td>
<td>9.1%</td>
</tr>
<tr>
<td>Outdoors</td>
<td>23</td>
<td></td>
<td>30.4%</td>
</tr>
<tr>
<td>Humanities</td>
<td>55</td>
<td></td>
<td>30.9%</td>
</tr>
<tr>
<td>Behavioral Sciences</td>
<td>63</td>
<td></td>
<td>30.2%</td>
</tr>
</tbody>
</table>
and weaknesses are listed separately from the department codes to analyze acceptance probabilities based on what the university is known for. The numbers of students in the majors are then subtracted from the total number of students in all the departments; for instance, the business college (department code = 2) had a total of 39 applicants, but seven of them intended to become accounting majors so the number of intended business majors listed is 32. After arranging these areas into subsets unique to each school, honors directors can determine acceptance probabilities by averaging the 0’s (students who did not accept) and 1’s (students who did accept). These probabilities will be combined with the probabilities of the other variables.

In probability estimates, however, caution should be exercised to make sure the sample is a large enough in each category to make a generalized statement, perhaps by including data from previous years. The major alignment is one of the areas that has the most variability in matriculation rates and thus has the potential to be a significant indicator if the variability holds up over time.

The example student has indicated accounting as her desired major, so her probability of accepting enrollment is 14.3%.

Location

Location preferences and residency information are also important factors in a student’s decision to accept an enrollment offer. Since the example university is located in a mountainous region, its candidates are likely to be interested in this environment. The university’s reputation as a strongly performing regional university also attracts students from other states and countries. However, students from out of the state or country are among the least likely to attend.

While schools vary, this university’s honors director found eight location distinctions, listed in Table 6. One distinction, region code = 0, is out-of-state and international students, who had similar matriculation rates in our sample. An honors director can look at various regions to see if they have different matriculation rates, aggregating those that are similar. This information can help determine where to spend scarce recruiting resources. Honors directors can determine region codes based on the size of the states in which they operate, the proximity of their location to other states and universities, and the populations of their states and regions. After determining the best region codes, finding the probabilities that students from these regions will accept enrollment offers is a matter of averaging the corresponding 0’s and 1’s.
We can calculate the probability of the example student’s acceptance given her residency location. She is from Region 1, the region in which the university is located, and so her probability of accepting enrollment is 50%.

**Socioeconomic Status**

Students’ socioeconomic status also provides information about their potential behaviors. The free and reduced lunch rates of the high schools that candidates attended are public data and can be a proxy for socioeconomic status. This information is generalized to a school’s attendance zone, but it provides some potential cohort effects and information about life expectations.

In cohort effects, potential candidates are influenced by those peers who are not as likely to attend (Ransdell). This information provides an honors program with the likelihood that students from an area of low socioeconomic status will attend the university, and it signals a potential future need for scholarship opportunities and financial aid. Honors directors can use this information to leverage their financial resources in attracting desired students from underprivileged or affluent areas.

To determine the free/reduced lunch percentage (FRLP), the example honors program downloaded the state’s free and reduced meals application data from the State Board of Education website which can be done in any state through a quick browser search for “free/reduced lunch applications in (insert state here).” The percentages found for each high school can then be matched with the students who attended them.

**Table 6. Observed Regions from which Students Apply to the Subject University and the Acceptance Probabilities from Each**

<table>
<thead>
<tr>
<th>Region Code</th>
<th>Number</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>120</td>
<td>15.8%</td>
</tr>
<tr>
<td>1</td>
<td>18</td>
<td>50.0%</td>
</tr>
<tr>
<td>2</td>
<td>8</td>
<td>50.0%</td>
</tr>
<tr>
<td>3</td>
<td>28</td>
<td>42.9%</td>
</tr>
<tr>
<td>4</td>
<td>61</td>
<td>34.4%</td>
</tr>
<tr>
<td>5</td>
<td>150</td>
<td>21.3%</td>
</tr>
<tr>
<td>6</td>
<td>120</td>
<td>38.3%</td>
</tr>
<tr>
<td>7</td>
<td>13</td>
<td>38.5%</td>
</tr>
</tbody>
</table>
Table 7 shows the results from the subject honors program's analysis of free/reduced lunch percentage effects on acceptance probabilities. Bin ranges that are mostly uniform with similar numbers of observations were created for this analysis. The honors program received a large number of applicants from schools with 0% free/reduced lunch, forcing the creation of a bin that only contains students from those schools. The probability of offer acceptance seems to increase as the FRLP increases, indicating that students are more likely attend this program given its lower cost compared with other programs in the region.

We can calculate the probability of the example student’s acceptance as 35.8% given the free/reduced lunch percentage at her high school of 30%.

THE COMBINED PREDICTION FORMULA

After determining optimal bin ranges and acceptance probabilities in each indicator, combined probabilities can be computed for each individual. The result is a spreadsheet that calculates the probability that a student or group of students will accept an offer from the program. Table 8 shows the cumulative probabilities for five applicants as an example. The SID column presents anonymous ID numbers applied to students to make the analysis possible. The GPA through Gender columns contain the acceptance probabilities that each student has based on the bin or category it is in.

For the sake of simplicity, we used an average of the probabilities indicated by each of the factors discussed earlier for the Cumulative Probability column. A more sophisticated analysis might assign weights to each variable. However, the goal was to provide some basic techniques to demonstrate their usefulness. For our example, the values in this column will provide the

<table>
<thead>
<tr>
<th>Bin</th>
<th>FRLP</th>
<th>Number</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0%</td>
<td>110</td>
<td>19.1%</td>
</tr>
<tr>
<td>2</td>
<td>1–10%</td>
<td>46</td>
<td>23.9%</td>
</tr>
<tr>
<td>3</td>
<td>11–20%</td>
<td>86</td>
<td>27.9%</td>
</tr>
<tr>
<td>4</td>
<td>21–30%</td>
<td>67</td>
<td>35.8%</td>
</tr>
<tr>
<td>5</td>
<td>31–40%</td>
<td>94</td>
<td>29.8%</td>
</tr>
<tr>
<td>6</td>
<td>41–50%</td>
<td>55</td>
<td>38.2%</td>
</tr>
<tr>
<td>7</td>
<td>51–80%</td>
<td>60</td>
<td>31.7%</td>
</tr>
</tbody>
</table>
probabilities that students will accept enrollment offers from the honors program. The “Accept?” column denotes whether the student actually accepted an enrollment offer. Honors directors can easily create this table in several ways. First, Excel VLOOKUP offers automated database input capabilities. With Tables 1 through 7 in separate spreadsheets or tabs in Excel, directors can use VLOOKUP to direct their software to place information from those tables into a table like Table 8. Using the SID numbers to provide a reference for the software, the process is fairly simple and quick.

Directors can also manually input the information from Tables 1 through 7 into a Table 8 format. This method is more time-intensive with copying and pasting but easy for smaller data sets if there is no interest in programming the VLOOKUP feature. Either way, converting the probabilities from each variable into cumulative probabilities is a process as simple as averaging a series of numbers.

Determining cumulative probabilities enables honors directors to optimize their enrollment pools. With a target number of students for an incoming class, an honors director can better identify the number of students who will receive enrollment offers to build the program that best serves the students and university goals. Table 8 allows directors to determine how many students are likely to accept offers based on the average probabilities. This number is derived by simply adding the cumulative probability columns together. Table 9 shows this process in action using the sample probabilities in Table 8.

As Table 9 shows, offering these five students enrollment into the honors program would yield 1.45 of them actually accepting. Obviously, the number of students who accept offers must be whole, but using this method gives honors directors a more detailed prediction of how many students will accept overall along with the specific probability of acceptance for each student.

**Table 8. Cumulative Probabilities that Students Will Accept Enrollment Offers Based on Academic and Demographic Factors**

<table>
<thead>
<tr>
<th>SID</th>
<th>GPA</th>
<th>SAT</th>
<th>Location</th>
<th>Major</th>
<th>FRLP</th>
<th>Race</th>
<th>Gender</th>
<th>Cum. Prob.</th>
<th>Accept?</th>
</tr>
</thead>
<tbody>
<tr>
<td>0001</td>
<td>0.282</td>
<td>0.181</td>
<td>0.158</td>
<td>0.302</td>
<td>0.191</td>
<td>0.288</td>
<td>0.292</td>
<td>0.242</td>
<td>0</td>
</tr>
<tr>
<td>0002</td>
<td>0.321</td>
<td>0.325</td>
<td>0.429</td>
<td>0.302</td>
<td>0.317</td>
<td>0.288</td>
<td>0.292</td>
<td>0.325</td>
<td>0</td>
</tr>
<tr>
<td>0003</td>
<td>0.282</td>
<td>0.181</td>
<td>0.385</td>
<td>0.500</td>
<td>0.358</td>
<td>0.288</td>
<td>0.274</td>
<td>0.324</td>
<td>1</td>
</tr>
<tr>
<td>0004</td>
<td>0.280</td>
<td>0.167</td>
<td>0.158</td>
<td>0.200</td>
<td>0.279</td>
<td>0.288</td>
<td>0.292</td>
<td>0.238</td>
<td>1</td>
</tr>
<tr>
<td>0005</td>
<td>0.210</td>
<td>0.325</td>
<td>0.383</td>
<td>0.364</td>
<td>0.382</td>
<td>0.288</td>
<td>0.292</td>
<td>0.321</td>
<td>1</td>
</tr>
</tbody>
</table>
With a complete dataset, an honors director can hone the model by updating the probabilities as each student accepts or rejects an offer. Directors can continue to offer enrollment to students until the total number is equal or approximately equal to their desired acceptance pool.

Furthermore, honors directors can repeat this process for each group so that they can have the probability, for instance, of all science students or a certain ethnic group and predict the total enrollment from each category. This approach makes it easier to manage diversity and program goals.

**Example Student Cumulative Acceptance Probability**

An example was given of each factor for calculating the acceptance probabilities of an example student. Table 10 outlines the individual probabilities for each factor and the cumulative probability that this student will accept enrollment. The cumulative acceptance probability is calculated by summing the probabilities for each factor and then taking the average.

The probability that this student will accept enrollment at the subject university is 0.324.

**Table 9. The Total Number of Students Who Will Accept an Enrollment Offer Based on Their Cumulative Probabilities**

<table>
<thead>
<tr>
<th>SID</th>
<th>Cumulative Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>0001</td>
<td>0.242</td>
</tr>
<tr>
<td>0002</td>
<td>0.325</td>
</tr>
<tr>
<td>0003</td>
<td>0.324</td>
</tr>
<tr>
<td>0004</td>
<td>0.238</td>
</tr>
<tr>
<td>0005</td>
<td>0.321</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1.45</strong></td>
</tr>
</tbody>
</table>

**Table 10. Combining the Factors for an Individual Prediction for Each Student**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>4.2</td>
<td>1380</td>
<td>Female</td>
<td>AA</td>
<td>Accounting</td>
<td>1</td>
<td>30%</td>
<td>-</td>
</tr>
<tr>
<td>Prob.</td>
<td>0.282</td>
<td>0.181</td>
<td>0.292</td>
<td>0.333</td>
<td>0.143</td>
<td>0.5</td>
<td>0.538</td>
<td>0.324</td>
</tr>
</tbody>
</table>
Examining Probabilities for Distinct Groups

Honors directors may want to increase the diversity of their student pool, which is a precarious balancing act if the diversity of many factors is addressed. Two examples might help illustrate the utility of predicting the number of offers required to ensure a certain number of students from various backgrounds.

Some honors directors may feel pressure to offer admissions to students intending to study a specific major. For example, if 10 honors students are required to enroll in accounting, the director could use the average acceptance rate for students intending to enroll in accounting to estimate how many offers they need to make. In subject university, the enrollment acceptance probability for a student intending to study accounting is 14.3%, meaning that the honors director would need to make approximately 70 offers to accounting majors to ensure that 10 would enroll.

The same method can ensure a healthy mixture of students from varying ethnic backgrounds. For example, an honors director may want to increase the number of Hispanic students. For the subject university, the acceptance probability of Hispanic/mixed students is 27.7%. Should the honors director need to increase the number of Hispanic honors students by 10, an additional 36 offers to Hispanic students would be required. In other words, if we multiply 36 offers of admission by the probability of enrollment, approximately 10 students will enroll.

CONCLUSION

A data-driven predictive approach can give honors directors information about which potential candidates might accept an offer of admission to their program, moving the process from a simple forecast to an individual prediction. Using this information can help honors directors make more informed decisions as they build their cohort.

While the method we have outlined is likely more sophisticated than many honors programs are using, it is not a perfect system. An ambitious honors director might take the analysis farther by using more predictive analysis, such as a decision tree or logistic regression algorithm to develop a segmented or weighted prediction that would balance the effect of each indicator variable and adjust for its importance. Once the data are collected, this approach could be completed relatively easily, but it is beyond the scope of
this paper. However, even our entry-level approach should improve on classical models of enrollment management.

Different schools have distinct factors that are important to them and their prospective students. The example provided is a guide for identifying those factors that can help predict what each individual applicant might do. Directors will want to update their model regularly as student populations change and new data come in.

While data analytics allow an honors director to hone acceptance procedures and present offers to applicants who are most likely to accept, they need adjustment for ethical considerations in order to create a fair and accurate procedure. An honors program should not turn qualified students away just because they do not match the typical matriculant. Diverse student populations do not always fit even the best statistical model. One way to avoid the ethical dilemma of making offers based on inherent demographic qualities would be to fill quotas based on the candidates most likely to accept an offer.

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REFERENCES


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Institutional Variability in Honors Admissions Standards, Program Support Structures, and Student Characteristics, Persistence, and Program Completion

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University of Central Arkansas

April L. Dove
Greenville Technical College

INTRODUCTION

In the autumn of 2014, the National Collegiate Honors Council (NCHC) launched the Admissions, Retention, and Completion Survey (ARC) in an attempt to collect for the first time honors program benchmarking data on important admissions, persistence, and completion metrics, data that are already widely used throughout higher education generally. The ARC survey
is part of NCHC’s ongoing effort to collect such data, which began in 2012 with the first iteration of what has come to be known as the NCHC Census, an omnibus survey asking a wide range of questions about honors administrative practices, curricular offerings, basic staffing, and the characteristics of honors directors and deans. While these surveys do not examine honors relative to the larger institutional contexts within which honors programs are located, the data emerging from the surveys allow us to begin identifying the extent of variation among key features of honors programs. The survey results have special value to the honors administrators who serve the approximately 350,000 honors students enrolled at NCHC member institutions. Results from the 2012–13 survey revealed differences especially between honors colleges and honors programs in terms of faculty and administrative resources and in the delivery of their programs (Scott), but they also revealed a substantial degree of similarity across honors programs and colleges in the provision of specific elements of curricular programming such as undergraduate research and senior-level capstone experiences (Cognard-Black and Savage).

Data resulting from the 2012–13 NCHC survey allowed us to paint a more complete picture of honors nationally, but the final version of that survey did not include any items tapping into honors admissions practices or the measures of persistence and completion that have come to dominate discussions of higher education in the last decade. While limitations and risks are associated with restricting our discussions to measures like four- and six-year graduation rates (Humphreys) or with the very process of deciding what and how to measure and incentivize (Guzy; Portnoy), we have had little data in honors to even start such discussions. The NCHC ARC survey is one of the first large-scale attempts to begin to fill that gap.

Prior research on college admission, retention, and completion has focused on the role that individual differences in socioeconomic status, race/ethnicity, and gender play in student success as well as student relationships with faculty and peers (Kuh et al.). In addition, student test scores along with high school GPA and class rank are among the factors that researchers most commonly examine to identify reliable predictors of college success. Studies within honors have looked at some of these same factors on an institutional level, and several have attempted to measure the impact of honors participation on student outcomes. For example, Seifert et al. used a longitudinal approach to assess the impact of honors program participation at eighteen institutions and found positive effects on development and critical thinking as well as retention.
Other research examines student persistence beyond the first year to honors program completion and graduation. Savage, Raehsler, and Fiedor completed an empirical study using logit and probit models to examine factors that affect honors completion rates. They found that high school GPA was a better predictor of honors completion than standardized test scores, and their results indicated that a student’s major may also influence the likelihood that a student will complete honors requirements (Savage et al.). These results are in line with Smith and Zagurski’s findings that high school GPA had the strongest correlation with college GPA, thereby increasing the student’s likelihood of continuing to meet program requirements.

These same factors, however, could contribute to overall degree completion and therefore do not provide an understanding of differences between those who complete their honors programs and those who do not. Cosgrove examined the impact of honors program participation on individual student retention and graduation by comparing the honors population to matched high-ability non-honors students and those who started in honors but did not finish. He found that students who completed their honors requirements had higher cumulative college GPAs and a shorter time to degree than their non-honors peers or students who began in honors and did not complete their honors requirements (Cosgrove). Similarly, Keller and Lacy (2013) used a matched-pairs approach comparing honors students with similarly prepared non-honors students, and they found that participation in the honors program increased both the proportion of students who persisted into the sophomore year and the proportion who graduated within six years of matriculation.

Taken together, these studies highlight the ways that student retention, honors program completion, and college graduation figure into questions about programmatic success for honors units, and they also paint a picture of the relationships among honors program participation, student success as measured by retention and completion rates, and the very admission practices that determine which students end up in honors programs to begin with. What is less well known, however, is what is typical among honors programs in rates of persistence and completion, in admission practices, and in features that might improve student success. Even less is known about the extent to which these factors vary depending on the type of institution in which an honors program is housed.

By examining data from the ARC survey for variation across different types of institutional settings, we should be able to identify common practices in honors admissions as well as the national trends in standard measures
of student persistence like second-year retention, honors program completion, and graduation rates. We do not attempt to evaluate which, if any, support structures have the greater impact on student success or to examine relationships among admissions standards, support structures, and retention; rather, we report summary statistics on the similarities and differences identified among institutional types and between honors programs and colleges. An additional purpose of our research is to examine the assumption that too much variability in honors from school to school prevents us from identifying generally accepted practices and standards (Cognard-Black and Savage). Access to the summary statistics from our data will not provide information on how each honors program is situated within its institution or how the program offerings compare to what is available on campus, but it will allow honors leaders to see how their own programs compare to what is typical, as revealed by national averages of individual survey items. In addition to admissions practices, data from this survey provide us a closer look at the students whom institutions are admitting, including gender composition and other student demographics, which we hope will allow honors deans and directors to gauge the extent to which their programs differ, if at all, from what is typical in a national sample of honors programs.

METHODS

Data

The NCHC Admissions, Retention, and Completion Survey (ARC) is the second of the three core trend surveys initiated by the National Collegiate Honors Council. The ARC was launched immediately following the 2014 NCHC annual meetings in Denver. The initial invitation to participate went out to the primary contact person at approximately 860 degree-granting NCHC institutional members on November 11, 2014. Seven follow-up reminders were sent over a four-month period between November and March, and the survey was closed at the beginning of April. In January, to encourage greater participation NCHC announced an incentive: vouchers for annual membership dues for two randomly chosen respondents. Approximately 26 percent of member institutions responded to some portion of the survey, and 22 percent followed the survey all the way to the end. While the summary statistics are based on only those institutions responding to the survey, many of the benchmark statistics exist within fairly narrow margins of error (NCHC), and they would seem to be fairly representative, especially within that subset of institutions that is most engaged in NCHC.
While a respectable 22 percent (almost 200) of member institutions responded to ARC and made it to the end of the survey, not all survey participants responded to all questions. For instance, student racial-ethnic composition statistics are based on the responses of only the 52 institutions that provided comprehensive responses to the questions for each of the categories of race-ethnicity recognized by the U.S. Department of Education in its data-gathering efforts. A likely explanation for the level of nonresponse to some items is that not all member honors programs actively and regularly collect the data in question, and some programs were unable to answer even more basic questions about the number of students in their program. Part of the problem with taking a census of program participants stems from the unusual ways some programs operate; some, for instance, do not formally admit students but count as honors students anyone who may have enrolled in a course designated as honors, making it hard to enumerate and track students. This problem can be particularly challenging at two-year institutions, where student populations are sometimes more itinerant than at four-year institutions.

Results from the ARC survey seem to suggest, however, that the problem of identifying honors students arises only in a minority of four-year programs. More common reasons for nonresponse are not keeping student data and not having access to institution-wide sources of data typically located in offices of institutional research and reporting. Finally, nonresponse may in part result from the survey’s demands on time and resources.

Response rates are a perennial problem for all survey researchers, including surveys of professionals. The well-established American College President Study, conducted by the Center for Policy Research and Strategy at the American Council on Education, gets responses from only approximately half of college presidents at not-for-profit institutions (ACE CPRS 2–3), a group of people who would seem to be well-positioned within institutions to marshal resources and respond to a major survey from a prominent national organization. While the ARC survey responses are considerably lower than half, 50 percent represents an upper limit that one might reasonably expect outside of those required of colleges and universities by the U.S. Department of Education. In that context, a 22–26 percent response rate represents a fairly strong showing for honors professionals.

**Analytic Approach**

In order to examine differences in key measures of honors admissions and persistence across organizational structures, we present averages across
two key dimensions: Carnegie classification (Indiana University Center on Postsecondary Research), which is widely used and recognized in higher education, and the distinction between honors programs and honors colleges. Respondents self-identified both broad Carnegie classification and program or college organizational structure in early items on the ARC Survey. Measurement details for Carnegie classification, honors organizational structure, and other study variables are presented in the appendix. In the analyses examining differences across Carnegie classification, we used analysis of variance (ANOVA) to identify instances where significant differences among categories existed, and for those items where a significant $F$ test suggested that a difference or differences existed, we also conducted post-hoc tests, i.e., Tukey honest significant difference (HSD) tests, to isolate the group comparisons that contributed to a significant $F$ test. For simplicity, we have not presented the results of post hoc tests in tables, but we use them to inform discussions about where differences are likely to occur between categories of institution. For analyses examining differences across honors organizational form, we use $t$-tests to identify when there may be differences between honors programs and honors colleges.

**RESULTS**

In the tables that follow, we present a comparison of means for selected key measures from the ARC. Tables 1–3 present means for selected variables across four broad categories of Carnegie classification: research/doctoral universities (widely referred to as “national universities”), master’s universities (or “regional universities”), baccalaureate (or “liberal arts”) colleges, and associate’s colleges (community, technical, and other primarily two-year degree-granting institutions).

The far-right column presents results of the $F$ tests from the analysis of variance. Results indicate a number of statistically meaningful differences within comparisons of a variety of admissions and persistence metrics. However, Tukey HSD post hoc tests revealed that most of those ANOVA results signal differences between two-year colleges and the larger category of four-year institutions. In admissions criteria, associate’s colleges are less likely to have a separate honors application essay, are likely to have lower reported ACT and GPA cutoffs for acceptance into honors, and generally have lower average ACT scores in the first-year student cohort. Associate’s colleges are less likely than four-year schools to have several honors-specific support structures—including honors housing, honors-specific advising,
honors internships, honors study abroad programs, and priority registration for honors students—and tend to have lower retention rates: a mean of 68% second-year retention compared to roughly 85% for four-year institutions.

In the three classifications of four-year institutions, however, we witness quite a bit of statistical and substantive similarity in the averages, indicating that while there may be considerable variation from institution to institution, differences in institutional mission, which Carnegie classification is designed to capture, do not appear to explain very much of that variation.

The exceptions to this general pattern of similarity among four-year institutions are the following: (1) research/doctoral universities have more honors students, an average of 972, by a factor of three or more, depending on the institution type (Table 1); (2) first-year honors students at research/doctoral universities have higher average test scores than those at baccalaureate colleges (compare mean ACT and SAT scores of 29.7 and 1,322 at research/doctoral institutions to those at master’s and baccalaureate schools) (Table 1); (3) master’s universities are less likely—by a factor of two or more—than research/doctoral universities to have series of invited lecturers, artists, musicians, and/or poets (Table 2); (4) research/doctoral and master’s universities are much more likely to have honors-specific housing options than baccalaureate colleges (87% and 76% compared to 55%) (Table 2); (5) baccalaureate colleges have a lower percentage of men in honors than we see at research/doctoral universities, by about 8 percentage points (Table 1); and (6) baccalaureate colleges have higher overall four-year graduation rates than research/doctoral universities although research/doctoral universities seem to make up lost ground by the sixth year after matriculation (Table 3). While four-year rates of graduation having completed honors requirements also appear to be lower by about 10 percentage points for doctoral universities, that difference is not statistically significant.

Tables 4–6 present analyses for the same set of ARC measures for honors programs and honors colleges. Whereas there were a number of statistically significant findings across Carnegie classification, relatively few items are significantly different in this analysis.

On average, honors colleges are much larger than honors programs, with 2.5 times as many students (852.2) as the typical honors program (342.5) (Table 4). Other than this difference and the finding that colleges are more likely to have a separate required essay as part of the application process, there are no statistically distinguishable differences for any of the measures of admissions practices, admissions criteria, and honors student profiles. Many
<table>
<thead>
<tr>
<th>Item</th>
<th>Carnegie Classification</th>
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<tr>
<td></td>
<td>Associate’s</td>
<td>Baccalaureate</td>
<td>Master’s/</td>
<td>Research/</td>
<td>All</td>
<td>ANOVA</td>
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<td></td>
<td></td>
<td></td>
<td>Comprehensive</td>
<td>Doctoral</td>
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<tr>
<td><strong>Demographics</strong></td>
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</tr>
<tr>
<td>Size of Honors (number of students)</td>
<td>332.2</td>
<td>150.5</td>
<td>318.3</td>
<td>972.1</td>
<td>451.7</td>
<td>p ≤ .01</td>
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<tr>
<td></td>
<td>(45)</td>
<td>(40)</td>
<td>(84)</td>
<td>(55)</td>
<td>(224)</td>
<td></td>
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</tr>
<tr>
<td>Honors Percent Men (students)</td>
<td>38.0</td>
<td>31.5</td>
<td>35.9</td>
<td>39.5</td>
<td>36.2</td>
<td>p ≤ .05</td>
<td></td>
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<td></td>
<td>(24)</td>
<td>(31)</td>
<td>(68)</td>
<td>(40)</td>
<td>(163)</td>
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<tr>
<td><strong>Honors Admissions Practices &amp; Criteria</strong></td>
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<tr>
<td>Have Separate Required Application Essay (%)</td>
<td>40.0</td>
<td>71.0</td>
<td>67.0</td>
<td>65.0</td>
<td>62.0</td>
<td>p ≤ .05</td>
<td></td>
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<td></td>
<td>(40)</td>
<td>(35)</td>
<td>(70)</td>
<td>(46)</td>
<td>(191)</td>
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<tr>
<td>Have Required Application Writing Sample (%)</td>
<td>8.0</td>
<td>17.0</td>
<td>21.0</td>
<td>11.0</td>
<td>15.0</td>
<td>NS</td>
<td></td>
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<tr>
<td></td>
<td>(40)</td>
<td>(35)</td>
<td>(71)</td>
<td>(46)</td>
<td>(192)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have Required Application Interview (%)</td>
<td>20.0</td>
<td>25.0</td>
<td>15.0</td>
<td>17.0</td>
<td>19.0</td>
<td>NS</td>
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<td>(41)</td>
<td>(36)</td>
<td>(71)</td>
<td>(46)</td>
<td>(194)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimum ACT for First-Year Student Admission</td>
<td>24.0</td>
<td>26.8</td>
<td>26.3</td>
<td>27.2</td>
<td>26.1</td>
<td>p ≤ .01</td>
<td></td>
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<tr>
<td></td>
<td>(21)</td>
<td>(23)</td>
<td>(40)</td>
<td>(23)</td>
<td>(107)</td>
<td></td>
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<tr>
<td>Minimum SAT for First-Year Student Admission</td>
<td>1,146.4</td>
<td>1,210.0</td>
<td>1,196.0</td>
<td>1,235.7</td>
<td>1,196.0</td>
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<td></td>
<td>(14)</td>
<td>(10)</td>
<td>(27)</td>
<td>(14)</td>
<td>(65)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Honors First-Year Cohort Characteristics

<table>
<thead>
<tr>
<th></th>
<th>First-Year Cohort Mean ACT Composite</th>
<th>First-Year Cohort Mean SAT Reading + Math</th>
<th>First-Year Cohort Mean High School GPA</th>
<th>First-Year Cohort Percent in Top 10% of HS Class</th>
<th>First-Year Cohort Percent in Top 25% of HS Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum HS GPA for First-Year Student Admission</td>
<td>3.36 (27)</td>
<td>23.9 (7)</td>
<td>1,183.3 (3)</td>
<td>57.2 (5)</td>
<td>85 (4)</td>
</tr>
<tr>
<td></td>
<td>3.54 (27)</td>
<td>28.4 (25)</td>
<td>1,234.9 (9)</td>
<td>73.1 (11)</td>
<td>95.4 (11)</td>
</tr>
<tr>
<td></td>
<td>3.46 (46)</td>
<td>28.5 (38)</td>
<td>1,270.9 (26)</td>
<td>81.8 (20)</td>
<td>95.8 (21)</td>
</tr>
<tr>
<td></td>
<td>3.52 (22)</td>
<td>29.7 (37)</td>
<td>1,322.3 (24)</td>
<td>76.1 (19)</td>
<td>94.6 (17)</td>
</tr>
<tr>
<td></td>
<td>3.47 (122)</td>
<td>28.6 (107)</td>
<td>1,281.3 (62)</td>
<td>NS</td>
<td>94.5 (53)</td>
</tr>
</tbody>
</table>

**Source:** NCHC 2014–2015 Admissions, Retention, and Completion Survey  
**Note:** Numbers in parentheses are the numbers of cases with valid data on which a given statistic is based.
**Table 2. Comparison of Means for Honors Requirements and Support Structures, by Broad Carnegie Classification**

<table>
<thead>
<tr>
<th>Item</th>
<th>Associate's</th>
<th>Baccalaureate</th>
<th>Master's/Comprehensive</th>
<th>Research/Doctoral</th>
<th>All</th>
<th>ANOVA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have a First-Year Student Mentor Program (%)</td>
<td>16.0</td>
<td>70.0</td>
<td>67.0</td>
<td>65.0</td>
<td>59.0</td>
<td>$p \leq .01$</td>
</tr>
<tr>
<td></td>
<td>(25)</td>
<td>(27)</td>
<td>(66)</td>
<td>(48)</td>
<td>(166)</td>
<td></td>
</tr>
<tr>
<td>Have an Honors Resident Assistant Program (%)</td>
<td>0.0</td>
<td>19.0</td>
<td>35.0</td>
<td>38.0</td>
<td>28.0</td>
<td>$p \leq .01$</td>
</tr>
<tr>
<td></td>
<td>(25)</td>
<td>(27)</td>
<td>(66)</td>
<td>(48)</td>
<td>(166)</td>
<td></td>
</tr>
<tr>
<td>Have Honors Tutors (%)</td>
<td>16.0</td>
<td>15.0</td>
<td>29.0</td>
<td>21.0</td>
<td>22.0</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td>(25)</td>
<td>(27)</td>
<td>(66)</td>
<td>(48)</td>
<td>(166)</td>
<td></td>
</tr>
<tr>
<td>Have Honors Ambassadors (%)</td>
<td>24.0</td>
<td>33.0</td>
<td>36.0</td>
<td>50.0</td>
<td>38.0</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td>(25)</td>
<td>(27)</td>
<td>(66)</td>
<td>(48)</td>
<td>(166)</td>
<td></td>
</tr>
<tr>
<td>Have a Student Lecture/Performance Series (%)</td>
<td>36.0</td>
<td>30.0</td>
<td>21.0</td>
<td>23.0</td>
<td>25.0</td>
<td>NS</td>
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<td></td>
<td>(25)</td>
<td>(27)</td>
<td>(66)</td>
<td>(48)</td>
<td>(166)</td>
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<tr>
<td>Have a Faculty Lecture/Performance Series (%)</td>
<td>48.0</td>
<td>41.0</td>
<td>38.0</td>
<td>56.0</td>
<td>45.0</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td>(25)</td>
<td>(27)</td>
<td>(66)</td>
<td>(48)</td>
<td>(166)</td>
<td></td>
</tr>
<tr>
<td>Have an Invited Lecturer/Performer Series (%)</td>
<td>52.0</td>
<td>41.0</td>
<td>30.0</td>
<td>60.0</td>
<td>44.0</td>
<td>$p \leq .05$</td>
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<tr>
<td></td>
<td>(25)</td>
<td>(27)</td>
<td>(66)</td>
<td>(48)</td>
<td>(166)</td>
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<tr>
<td>Have an Art/Music/Poetry Series (%)</td>
<td>28.0</td>
<td>26.0</td>
<td>11.0</td>
<td>48.0</td>
<td>27.0</td>
<td>$p \leq .01$</td>
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<td></td>
<td>(25)</td>
<td>(27)</td>
<td>(66)</td>
<td>(48)</td>
<td>(166)</td>
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<tr>
<td>Have a Study Abroad Program (%)</td>
<td>20.0</td>
<td>63.0</td>
<td>59.0</td>
<td>65.0</td>
<td>55.0</td>
<td>≤ .01</td>
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<td>(27)</td>
<td>(66)</td>
<td>(48)</td>
<td>(166)</td>
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<tr>
<td>Have an Internship Program (%)</td>
<td>8.0</td>
<td>41.0</td>
<td>21.0</td>
<td>35.0</td>
<td>27.0</td>
<td>≤ .05</td>
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<td>(25)</td>
<td>(27)</td>
<td>(66)</td>
<td>(48)</td>
<td>(166)</td>
<td></td>
</tr>
<tr>
<td>Have Honors Housing (%)</td>
<td>3.0</td>
<td>55.0</td>
<td>76.0</td>
<td>87.0</td>
<td>60.0</td>
<td>≤ .01</td>
</tr>
<tr>
<td></td>
<td>(37)</td>
<td>(33)</td>
<td>(71)</td>
<td>(46)</td>
<td>(187)</td>
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<tr>
<td>Have an Honors Service Requirement (%)</td>
<td>32.0</td>
<td>47.0</td>
<td>37.0</td>
<td>31.0</td>
<td>36.0</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td>(38)</td>
<td>(34)</td>
<td>(71)</td>
<td>(48)</td>
<td>(191)</td>
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<tr>
<td>Have Honors-Specific Advising (%)</td>
<td>74.0</td>
<td>82.0</td>
<td>94.0</td>
<td>88.0</td>
<td>86.0</td>
<td>≤ .05</td>
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<tr>
<td></td>
<td>(38)</td>
<td>(33)</td>
<td>(71)</td>
<td>(48)</td>
<td>(190)</td>
<td></td>
</tr>
<tr>
<td>Have Priority Registration for Honors (%)</td>
<td>43.0</td>
<td>59.0</td>
<td>76.0</td>
<td>79.0</td>
<td>67.0</td>
<td>≤ .01</td>
</tr>
<tr>
<td></td>
<td>(37)</td>
<td>(34)</td>
<td>(71)</td>
<td>(48)</td>
<td>(190)</td>
<td></td>
</tr>
</tbody>
</table>

Source: NCHC 2014–2015 Admissions, Retention, and Completion Survey
Note: Numbers in parentheses are the numbers of cases with valid data on which a given statistic is based.
Table 3. Comparison of Means for Honors Retention, Program Completion, and Graduation Rates, by Broad Carnegie Classification

<table>
<thead>
<tr>
<th>Item</th>
<th>Carnegie Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Associate’s&lt;sup&gt;a&lt;/sup&gt;</td>
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<tr>
<td>Second-Year Retention Rate (%)</td>
<td>68.7</td>
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<tr>
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<td>(10)</td>
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<tr>
<td>GPA Required to Remain in Honors</td>
<td>3.22</td>
</tr>
<tr>
<td></td>
<td>(33)</td>
</tr>
<tr>
<td>Four-Year Honors Graduation Rate (%)</td>
<td>—</td>
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<tr>
<td></td>
<td>(15)</td>
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<tr>
<td>Six-Year Honors Graduation Rate (%)</td>
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<tr>
<td></td>
<td>(15)</td>
</tr>
<tr>
<td>Four-Year Graduation Rate (%)</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>(13)</td>
</tr>
<tr>
<td>Six-Year Graduation Rate (%)</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>(10)</td>
</tr>
</tbody>
</table>

Source: NCHC 2014–2015 Admissions, Retention, and Completion Survey

Note: Numbers in parentheses are the numbers of cases with valid data on which a given statistic is based. Four- and six-year graduation rates include both those who completed honors requirements and graduated and those who started in honors but graduated without completing honors requirements.

<sup>a</sup> In general, four- and six-year graduation rates are used to describe institutions offering baccalaureate degrees, so such rates are not strictly comparable for associate’s degree institutions. In addition, associate’s degree institutions provided very few data on two- and four-year completion/graduation numbers, and so completion and graduation rates cannot be calculated for those institutions.
of the averages for programs and colleges are nearly identical: the typical percentage of males is within 1.5 percentage points for programs and colleges; minimum test scores and other admissions criteria are essentially identical; and first-year average SAT scores are within a fairly trivial 18.5 points of one another.

Table 5 presents a comparison of means for honors requirements and support structures. The evidence indicates that honors colleges are much more likely to have a number of support structures, with double-digit advantages over programs in honors tutors (38% vs. 18%), honors ambassadors (59% vs. 32%), honors-specific study abroad offerings (70% vs. 51%), honors housing options (77% vs. 56%), honors-specific advising (97% vs. 83%), and priority course registration for honors students (85% vs. 63%).

However, Table 6 shows that despite their greater likelihood of additional support structures, honors colleges do not appear to have significantly better rates of second-year retention, completion and graduation, or overall graduation. Second-year retention is about 7.1 percentage points higher at colleges, and the rates of graduation with completion of honors requirements within six years are higher by about 10 percentage points. If response rates had been better and sample sizes bigger, these differences might have shown up as significant, but, even with these two possible differences, there seems to be more similarity than difference across programs and colleges in the common measures of admissions, retention, and completion.

### DISCUSSION AND CONCLUSION

The results of the present study show that associate’s colleges have less stringent admission standards, are less likely to have honors-specific support structures, and have lower persistence rates. These findings are consistent with national trends in admissions practices and persistence rates at two-year institutions generally and signal the unique challenges that affect the operation of honors at associate’s colleges. The tendency for associate’s colleges to operate as open-door institutions, for instance, is reflected in the comparison between test scores at associate’s colleges. Applicants are encouraged to submit high school transcripts, AP scores, and/or SAT and ACT scores during the application process because they help place the student into higher-level courses, but such tests and similar credentials are not required for admission to most community, technical, and other two-year degree institutions. Students with no external placement scores are generally required to take internal placement tests to assess what courses they qualify to take, and many
Table 4. Comparison of Means for Honors Student Demographics, Honors Admissions Criteria, and Honors Student Admissions Profile, by Honors Organizational Structure

<table>
<thead>
<tr>
<th>Item</th>
<th>Honors Structure</th>
<th>Program / Institute</th>
<th>College</th>
<th>All</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Demographics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size of Honors (number of students)</td>
<td></td>
<td>342.5</td>
<td>852.2</td>
<td>451.7</td>
<td>$p \leq .01$</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(176)</td>
<td>(48)</td>
<td>(224)</td>
<td></td>
</tr>
<tr>
<td>Honors Percent Men (students)</td>
<td></td>
<td>35.9</td>
<td>37.4</td>
<td>36.2</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(127)</td>
<td>(36)</td>
<td>(163)</td>
<td></td>
</tr>
<tr>
<td><strong>Honors Admissions Practices &amp; Criteria</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have Separate Required Application Essay (%)</td>
<td></td>
<td>58.0</td>
<td>75.0</td>
<td>62.0</td>
<td>$p \leq .05$</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(151)</td>
<td>(40)</td>
<td>(191)</td>
<td></td>
</tr>
<tr>
<td>Have Required Application Writing Sample (%)</td>
<td></td>
<td>14.0</td>
<td>20.0</td>
<td>15.0</td>
<td>NS</td>
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<tr>
<td></td>
<td></td>
<td>(152)</td>
<td>(40)</td>
<td>(192)</td>
<td></td>
</tr>
<tr>
<td>Have Required Application Interview (%)</td>
<td></td>
<td>18.0</td>
<td>20.0</td>
<td>19.0</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(154)</td>
<td>(40)</td>
<td>(194)</td>
<td></td>
</tr>
<tr>
<td>Minimum ACT for First-Year Student Admission</td>
<td></td>
<td>26.1</td>
<td>26.2</td>
<td>26.1</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(87)</td>
<td>(20)</td>
<td>(107)</td>
<td></td>
</tr>
<tr>
<td>Minimum SAT for First-Year Student Admission</td>
<td></td>
<td>1,196.1</td>
<td>1,195.6</td>
<td>1,196.0</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(56)</td>
<td>(9)</td>
<td>(65)</td>
<td></td>
</tr>
<tr>
<td>Minimum HS GPA for First-Year Student Admission</td>
<td>3.46</td>
<td>3.49</td>
<td>3.47</td>
<td>NS</td>
<td></td>
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<tr>
<td></td>
<td>(99)</td>
<td>(23)</td>
<td>(122)</td>
<td></td>
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</table>

**Honors First-Year Cohort Characteristics**

<table>
<thead>
<tr>
<th>First-Year Cohort Mean ACT Composite</th>
<th>28.4</th>
<th>29.0</th>
<th>28.6</th>
<th>NS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(74)</td>
<td>(33)</td>
<td>(107)</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>First-Year Cohort Mean SAT Reading + Math</th>
<th>1,275.4</th>
<th>1,293.9</th>
<th>1,281.3</th>
<th>NS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(42)</td>
<td>(20)</td>
<td>(62)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>First-Year Cohort Mean High School GPA</th>
<th>3.81</th>
<th>3.85</th>
<th>3.83</th>
<th>NS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(78)</td>
<td>(31)</td>
<td>(109)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>First-Year Cohort Percent in Top 10% of HS Class</th>
<th>77.2</th>
<th>73.1</th>
<th>75.8</th>
<th>NS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(37)</td>
<td>(18)</td>
<td>(55)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>First-Year Cohort Percent in Top 25% of HS Class</th>
<th>94.7</th>
<th>94.2</th>
<th>94.5</th>
<th>NS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(35)</td>
<td>(18)</td>
<td>(53)</td>
<td></td>
</tr>
</tbody>
</table>

Source: NCHC 2014–2015 Admissions, Retention, and Completion Survey
Note: Numbers in parentheses are the numbers of cases with valid data on which a given statistic is based.
### Table 5. Comparison of Means for Honors Requirements and Support Structures, by Honors Organizational Structure

<table>
<thead>
<tr>
<th>Item</th>
<th>Honors Structure</th>
<th>Program/Institute</th>
<th>College</th>
<th>All</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have a First-Year Student Mentor Program (%)</td>
<td>57.0</td>
<td>65.0</td>
<td>59.0</td>
<td>NS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(129)</td>
<td>(37)</td>
<td>(166)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have an Honors Resident Assistant Program (%)</td>
<td>26.0</td>
<td>32.0</td>
<td>28.0</td>
<td>NS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(129)</td>
<td>(37)</td>
<td>(166)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have Honors Tutors (%)</td>
<td>18.0</td>
<td>38.0</td>
<td>22.0</td>
<td>p ≤ .05</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(129)</td>
<td>(37)</td>
<td>(166)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have Honors Ambassadors (%)</td>
<td>32.0</td>
<td>59.0</td>
<td>38.0</td>
<td>p ≤ .01</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(129)</td>
<td>(37)</td>
<td>(166)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have a Student Lecture/Performance Series (%)</td>
<td>26.0</td>
<td>22.0</td>
<td>25.0</td>
<td>NS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(129)</td>
<td>(37)</td>
<td>(166)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have a Faculty Lecture/Performance Series (%)</td>
<td>46.0</td>
<td>43.0</td>
<td>45.0</td>
<td>NS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(129)</td>
<td>(37)</td>
<td>(166)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have an Invited Lecturer/Performer Series (%)</td>
<td>40.0</td>
<td>57.0</td>
<td>44.0</td>
<td>p = .076</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(129)</td>
<td>(37)</td>
<td>(166)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have an Art/Music/Poetry Series (%)</td>
<td>23.0</td>
<td>38.0</td>
<td>27.0</td>
<td>NS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(129)</td>
<td>(37)</td>
<td>(166)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program</td>
<td>251</td>
<td>70.0</td>
<td>55.0</td>
<td>p-value</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>-------</td>
<td>------</td>
<td>------</td>
<td>---------</td>
<td></td>
</tr>
<tr>
<td>Have a Study Abroad Program (%)</td>
<td>51.0</td>
<td>70.0</td>
<td>55.0</td>
<td>p ≤ .05</td>
<td></td>
</tr>
<tr>
<td>Have an Internship Program (%)</td>
<td>23.0</td>
<td>38.0</td>
<td>27.0</td>
<td>p = .107</td>
<td></td>
</tr>
<tr>
<td>Have Honors Housing (%)</td>
<td>56.0</td>
<td>77.0</td>
<td>60.0</td>
<td>p ≤ .05</td>
<td></td>
</tr>
<tr>
<td>Have an Honors Service Requirement (%)</td>
<td>36.0</td>
<td>35.0</td>
<td>36.0</td>
<td>NS</td>
<td></td>
</tr>
<tr>
<td>Have Honors-Specific Advising (%)</td>
<td>83.0</td>
<td>97.0</td>
<td>86.0</td>
<td>p ≤ .01</td>
<td></td>
</tr>
<tr>
<td>Have Priority Registration for Honors (%)</td>
<td>63.0</td>
<td>85.0</td>
<td>67.0</td>
<td>p ≤ .01</td>
<td></td>
</tr>
</tbody>
</table>

Source: NCHC 2014–2015 Admissions, Retention, and Completion Survey

Note: Numbers in parentheses are the numbers of cases with valid data on which a given statistic is based.
<table>
<thead>
<tr>
<th>Item</th>
<th>Program / Institute</th>
<th>College</th>
<th>All</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Second-Year Retention Rate (%)</td>
<td>82.6</td>
<td>89.7</td>
<td>84.4</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td>(86)</td>
<td>(30)</td>
<td>(116)</td>
<td></td>
</tr>
<tr>
<td>GPA Required to Remain in Honors</td>
<td>3.29</td>
<td>3.28</td>
<td>3.29</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td>(139)</td>
<td>(37)</td>
<td>(176)</td>
<td></td>
</tr>
<tr>
<td>Four-Year Honors Graduation Rate (%)</td>
<td>47.4</td>
<td>48.9</td>
<td>47.8</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td>(47)</td>
<td>(20)</td>
<td>(67)</td>
<td></td>
</tr>
<tr>
<td>Six-Year Honors Graduation Rate (%)</td>
<td>50.4</td>
<td>60.8</td>
<td>53.6</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td>(42)</td>
<td>(19)</td>
<td>(61)</td>
<td></td>
</tr>
<tr>
<td>Four-Year Graduation Rate (%)</td>
<td>73.0</td>
<td>69.3</td>
<td>72.0</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td>(41)</td>
<td>(15)</td>
<td>(56)</td>
<td></td>
</tr>
<tr>
<td>Six-Year Graduation Rate (%)</td>
<td>83.6</td>
<td>88.0</td>
<td>85.0</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td>(33)</td>
<td>(15)</td>
<td>(48)</td>
<td></td>
</tr>
</tbody>
</table>

Source: NCHC 2014–2015 Admissions, Retention, and Completion Survey

Note: Numbers in parentheses are the numbers of cases with valid data on which a given statistic is based. Four- and six-year graduation rates include both those who completed honors requirements and graduated and those who started in honors but graduated without completing honors requirements.
are required to take developmental courses before continuing to courses required for degree programs.

Two-year colleges tend to serve students with a variety of socioeconomic challenges who come to college less prepared out of high school or who are returning to college to learn new vocational skills after many years out of school. These socioeconomic factors produce differences in honors admissions practices, making them less likely than four-year institutions to require an honors-specific application, additional application essays, and minimum test scores. Honors programs at associate’s colleges typically operate with more relaxed admissions standards in order to best serve the needs of their student body and the economic needs of their local community while at the same time identifying students with the highest academic potential from among the population being served and providing them with enhanced educational experiences that help fulfill that potential.

Additional challenges that associate’s colleges face include the lack of honors-related support structures and low persistence rates. Associate’s colleges are less likely than four-year colleges to offer priority registration, designated campus housing, study abroad programs, or internship opportunities. On-campus housing is rare at two-year institutions since most students commute. Since honors programs at two-year institutions typically receive little if any institutional funding, offering honors-specific study abroad programs and internship opportunities is often infeasible.

The lower persistence rates of honors students at associate’s colleges compared to four-year institutions may result in part from the fact that many of their students attend not to complete an associate’s degree but to earn credits before transferring to a four-year institution; this has a large impact on measures of persistence, especially among students enrolled in honors programs. While such students may well be persisting in their pursuit of a degree, the two-year schools that facilitate such students suffer from artificially lowered persistence rates as they struggle with appropriate ways to track students who transfer to a university. Also, the many socioeconomic challenges that students face, including greater work and home responsibilities than four-year college students usually have, make them more likely to attend intermittently, enrolling one semester and not the next. Future research could help clarify whether honors programs at associate’s colleges have higher persistence rates than the colleges in which they are housed.

Results for four-year institutions show much less variation in institutional characteristics than one might expect. We did find that honors programs at
research/doctoral universities are larger, and while institutional sizes were not collected in this survey, they are probably also larger, resulting in the higher number of honors students. We also found that honors programs at research/doctoral universities have higher standardized test scores at the time of admission, which again might be consistent with what we know of admission standards at these institutions overall.

Given the economies of scale, research/doctoral universities and associate’s colleges are most likely to sponsor invited lecturers, artists, musicians, and poets. More than half of the honors programs at all four-year institutional types offer student mentor programs, study abroad programs, honors housing, and priority registration. The most common type of support across institutional type, including associate’s colleges, is honors-specific advising.

Few differences between honors programs and colleges appeared among admissions requirements. While honors colleges tended to have larger enrollments and were more likely to have a separate required essay as part of the application process, there were no statistically distinguishable differences for any of the other measures of admissions practices and criteria. The differences in services and opportunities provided to students were more substantial: honors colleges were more likely than programs to have honors tutors, honors ambassadors, honors-specific study abroad opportunities, honors housing options, honors-specific advising, and priority course registration. Despite their greater likelihood of additional support structures, however, honors colleges did not appear to have significantly better second-year retention rates, honors completion and graduation rates, or overall graduation rates. An important area for future research would be a national study of the extent to which retention and completion rates in honors improves on overall institutional rates of retention and completion. By matching NCHC data for honors with institution-level data from the Integrated Postsecondary Education Data System of the U.S. Department of Education, we may gain a better understanding of whether, and how much, honors experience helps to keep students on campus and encourages them toward degree completion. Such information would help paint a clearer picture of the impact that honors programs have on overall student persistence.

REFERENCES


The authors may be contacted at ajcognardblack@smcm.edu.
### APPENDIX

**Description of Study Variables**

<table>
<thead>
<tr>
<th>Item</th>
<th>Level of Measurement</th>
<th>Description/Response Options</th>
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<tbody>
<tr>
<td><strong>Institutional Characteristics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of Institution</td>
<td>Nominal</td>
<td>(1) Research/Doctoral University; (2) Master’s University; (3) Baccalaureate College; (4) Associate’s College</td>
</tr>
<tr>
<td>Honors Organization Type</td>
<td>Nominal</td>
<td>(1) Honors College; (2) Honors Program</td>
</tr>
<tr>
<td><strong>Demographics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size of Honors</td>
<td>Ratio</td>
<td>Response to a question asking, “How many students were in your honors unit in fall 2013?”</td>
</tr>
<tr>
<td>Honors Percent Men</td>
<td>Ratio</td>
<td>The percentage of honors students who are men, calculated from separate items asking the number of honors students who are men, women, or transgender</td>
</tr>
<tr>
<td><strong>Honors Admissions Practices &amp; Criteria</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have Separate Required Application Essay</td>
<td>Nominal</td>
<td>Yes/No response to a question asking, “Is there an honors-specific application essay required as part of the admissions procedure?”</td>
</tr>
<tr>
<td>Have Required Application Writing Sample</td>
<td>Nominal</td>
<td>Yes/No response to a question asking, “Is there a writing sample other than an application essay required as part of the admissions procedure?”</td>
</tr>
<tr>
<td>Have Required Application Interview</td>
<td>Nominal</td>
<td>Yes/No response to a question asking, “Is there an interview required as part of the admissions procedure?”</td>
</tr>
<tr>
<td>Item</td>
<td>Level of Measurement</td>
<td>Description/Response Options</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>----------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Minimum ACT for First-Year Student Admission</td>
<td>Ratio</td>
<td>Response to a question asking, “Please indicate the minimum score for each of the tests that you have established as a criterion for admission to honors” and specifying the ACT composite test score</td>
</tr>
<tr>
<td>Minimum SAT for First-Year Student Admission</td>
<td>Ratio</td>
<td>Response to a question asking, “Please indicate the minimum score for each of the tests that you have established as a criterion for admission to honors” and specifying the combined SAT test score</td>
</tr>
<tr>
<td>Minimum HS GPA for First-Year Student Admission</td>
<td>Ratio</td>
<td>Response to a question asking, “Please indicate the minimum high school GPA for admission to honors (4.0 scale).”</td>
</tr>
<tr>
<td><strong>Honors First-Year Cohort Characteristics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First-Year Cohort Mean ACT Composite</td>
<td>Ratio</td>
<td>Response to a question asking, “What was the average ACT composite score for first-year honors students in fall 2013?”</td>
</tr>
<tr>
<td>First-Year Cohort Mean SAT Reading + Math</td>
<td>Ratio</td>
<td>Response to a question asking, “What was the average SAT composite score for first-year honors students in fall 2013?”</td>
</tr>
<tr>
<td>First-Year Cohort Mean High School GPA</td>
<td>Ratio</td>
<td>Response to a question asking, “What was the average high school GPA for first-year honors students in fall 2013?”</td>
</tr>
<tr>
<td>First-Year Cohort Percent in Top 10% of HS Class</td>
<td>Ratio</td>
<td>Response to a question asking, “Of the incoming first-year honors students, what percent were in the top tenth (10 percent) of their high school graduating class?”</td>
</tr>
<tr>
<td>First-Year Cohort Percent in Top 25% of HS Class</td>
<td>Ratio</td>
<td>Response to a question asking, “Of the incoming first-year honors students, what percent were in the top quarter (25 percent) of their high school graduating class?”</td>
</tr>
<tr>
<td><strong>Honors Requirements and Support Structures</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>Have a First-Year Student Mentor Program?</td>
<td>Nominal</td>
<td>Yes/No</td>
</tr>
<tr>
<td>Have an Honors Resident Assistant Program?</td>
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Note: Items come from the NCHC 2014–2015 Admissions, Retention, and Completion Survey.
ABOUT THE AUTHORS

Kimberly Bell is Dean of the Elliott T. Bowers Honors College and Professor of English at Sam Houston State University, where she teaches courses in classical and medieval literature and the history of the English language. Her research interests include manuscript study and genre and cultural game theory.

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Phame Camarena is Director of the University Honors Program and Professor of Human Development at Central Michigan University. He is a member of the NCHC Publications Board and Diversity Committee. His scholarly work focuses on self-development and educational achievement in diverse populations.

Joseph A. Cazier is Director of the Center for Analytics Research and Education (CARE) at Appalachian State University and Dean's Club Professor in Information Systems. He has served as an honors program director and member of the University Honors Advisory Council. He loves mentoring students and using big data analytics techniques to solve real-world problems.

Andrew J. Cognard-Black teaches on the faculty of the honors college at St. Mary’s College of Maryland. Since 2013, he also has worked with the NCHC national office to develop a series of surveys that explore institutional characteristics of honors programs and colleges in the United States. He earned his PhD in sociology from Ohio State University. His research interests include the sociologies of higher education, work and occupations, and social inequality.

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**Chris de Kruif** is Associate Professor in Administrative Law and from 2012–2017 was Director of Studies of the Honours Academy at Leiden University; as such, she oversaw all extracurricular honors programs of the university. Currently, she is Director of Studies at the Faculty of Law (Leiden University). Her teaching covers honors courses as well as undergraduate and post-academic courses.

**Patrick J. Lewis** is Professor of Biological Sciences and Associate Dean of the Honors College at Sam Houston State University. His research focuses on the evolution of various vertebrate lineages, primarily in Africa, and he teaches zoology and paleontology. He also organizes the seminars for the honors college each semester.

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Jennifer McGee is Associate Professor of Educational Research and Evaluation in the Department of Curriculum and Instruction at Appalachian State University. She teaches classroom assessment, research methods, and applied statistics in the College of Education.

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Inge Otto is a consultant in the domain of higher education at Hobéon Management Consult, the Netherlands. Previously, she was a researcher at the Honours Academy at Leiden University and at the Research Center for Talent Development in Higher Education & Society (Hanze University of Applied Sciences, Groningen). In both contexts, she carried out research projects about honors education.

Daniel Paprocki is currently an MS candidate in applied data analytics at Appalachian State University. He holds a master’s degree in mechanical engineering and is former Assistant Director of the Industrial Assessment Center at North Carolina State University. His main interests are energy conservation and the use of analytics to reduce our energy footprint.

Amber D. Rolland is a second-year biochemistry PhD student at the University of Oregon. She graduated from the Schedler Honors College at the University of Central Arkansas in 2016 and served on the NCHC Board of Directors in 2015.
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Rachel A. Sledge is a graduate of the Appalachian State University Honors College and College of Health Sciences. While at Appalachian, she had the unique opportunity to work and advocate for the college as a student employee and member of the Honors Vanguard. An aspiring doctor of physical therapy, she currently works for CarePartners Rehabilitation in Asheville, NC.

Patricia J. Smith is Interim Dean of the Schedler Honors College and Assistant Professor in Leadership Studies at the University of Central Arkansas. She has worked in honors education for over a decade and has made it a central part of her research.

Art L. Spisak is Director of the University of Iowa Honors Program and a professor in the Classics Department. He is currently President of the National Collegiate Honors Council (2017). He has been involved with honors education as a faculty member for twenty years and as an administrator for over ten years.

Sam Van Horne is a senior institutional research analyst in the Office of Institutional Research and Effectiveness at the University of Delaware. His research interests include the interventions that support student learning with digital course materials and the factors that promote college student retention and degree attainment.
ABOUT THE NCHC MONOGRAPH SERIES

The Publications Board of the National Collegiate Honors Council typically publishes two to three monographs a year. The subject matter and style range widely: from handbooks on nuts-and-bolts practices and discussions of honors pedagogy to anthologies on diverse topics addressing honors education and issues relevant to higher education.

The Publications Board encourages people with expertise interested in writing such a monograph to submit a prospectus. Prospective authors or editors of an anthology should submit a proposal discussing the purpose or scope of the manuscript; a prospectus that includes a chapter by chapter summary; a brief writing sample, preferably a draft of the introduction or an early chapter; and a curriculum vitae. All monograph proposals will be reviewed by the NCHC Publications Board.

Direct all proposals, manuscripts, and inquiries about submitting a proposal to the General Editor of the Monograph Series:

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555 N. Indian Creek Drive
Clarkston, GA 30021-2396
jportnoy@gsu.edu
(678) 891-3620
Assessing and Evaluating Honors Programs and Honors Colleges: A Practical Handbook by Rosalie Otero and Robert Spurnier (2005, 98pp). This monograph includes an overview of assessment and evaluation practices and strategies. It explores the process for conducting self-studies and discusses the differences between using consultants and external reviewers. It provides a guide to conducting external reviews along with information about how to become an NCHC-Recommended Site Visitor. A dozen appendices provide examples of “best practices.”


A Handbook for Honors Programs at Two-Year Colleges by Theresa James (2006, 136pp). A useful handbook for two-year schools contemplating beginning or redesigning their honors program and for four-year schools doing likewise or wanting to increase awareness about two-year programs and articulation agreements. Contains extensive appendices about honors contracts and a comprehensive bibliography on honors education.

The Honors College Phenomenon edited by Peter C. Sederberg (2008, 172pp). This monograph examines the growth of honors colleges since 1990: historical and descriptive characterizations of the trend, alternative models that include determining whether becoming a college is appropriate, and stories of creation and recreation. Leaders whose institutions are contemplating or taking this step as well as those directing established colleges should find these essays valuable.

Honors Composition: Historical Perspectives and Contemporary Practices by Annmarie Guzy (2003, 182pp). Parallel historical developments in honors and composition studies; contemporary honors writing projects ranging from admission essays to theses as reported by over 300 NCHC members.

Honors Programs at Smaller Colleges by Samuel Schuman (Third Edition, 2011, 80pp). Practical and comprehensive advice on creating and managing honors programs with particular emphasis on colleges with fewer than 4,000 students.

The Honors Thesis: A Handbook for Honors Directors, Deans, and Faculty Advisors by Mark Anderson, Karen Lyons, and Norman Weiner (2014, 176pp). To all those who design, administer, and implement an honors thesis program, this handbook offers a range of options, models, best practices, and philosophies that illustrate how to evaluate an honors thesis program, solve pressing problems, select effective requirements and procedures, or introduce a new honors thesis program.

Housing Honors edited by Linda Frost, Lisa W. Kay, and Rachael Poe (2015, 352pp). This collection of essays addresses the issues of where honors lives and how honors space influences educators and students. This volume includes the results of a survey of over 400 institutions; essays on the acquisition, construction, renovation, development, and even the loss of honors space; a forum offering a range of perspectives on residential space for honors students; and a section featuring student perspectives.

If Honors Students Were People: Holistic Honors Education by Samuel Schuman (2013, 256pp). What if honors students were people? What if they were not disembodied intellects but whole persons with physical bodies and questing spirits? Of course . . . they are. This monograph examines the spiritual yearnings of college students and the relationship between exercise and learning.

Inspiring Exemplary Teaching and Learning: Perspectives on Teaching Academically Talented College Students edited by Larry Clark and John Zubizarreta (2008, 216pp). This rich collection of essays offers valuable insights into innovative teaching and significant learning in the context of academically challenging classrooms and programs. The volume provides theoretical, descriptive, and practical resources, including models of effective instructional practices, examples of successful courses designed for enhanced learning, and a list of online links to teaching and learning centers and educational databases worldwide.

Occupy Honors Education edited by Lisa L. Coleman, Jonathan D. Kotinek, and Alan Y. Oda (2017, 394pp). This collection of essays issues a call to honors to make diversity, equity, and inclusive excellence its central mission and ongoing state of mind. Echoing the AAC&U declaration “without inclusion there is no true excellence,” the authors discuss transformational diversity, why it is essential, and how to achieve it.
The Other Culture: Science and Mathematics Education in Honors edited by Ellen B. Buckner and Keith Garbutt (2012, 296pp). A collection of essays about teaching science and math in an honors context: topics include science in society, strategies for science and non-science majors, the threat of pseudoscience, chemistry, interdisciplinary science, scientific literacy, philosophy of science, thesis development, calculus, and statistics.

Partners in the Parks: Field Guide to an Experiential Program in the National Parks by Joan Digby with reflective essays on theory and practice by student and faculty participants and National Park Service personnel (First Edition, 2010, 272pp). This monograph explores an experiential-learning program that fosters immersion in and stewardship of the national parks. The topics include program designs, group dynamics, philosophical and political issues, photography, wilderness exploration, and assessment.

Partners in the Parks: Field Program to an Experiential Program in the National Parks edited by Heather Thiessen-Reily and Joan Digby (Second Edition, 2016, 268pp). This collection of recent photographs and essays by students, faculty, and National Park Service rangers reflects upon PITP experiential-learning projects in new NPS locations, offers significant refinements in programming and curriculum for revisited projects, and provides strategies and tools for assessing PITP adventures.

Place as Text: Approaches to Active Learning edited by Bernice Braid and Ada Long (Second Edition, 2010, 128pp). Updated theory, information, and advice on experiential pedagogies developed within NCHC during the past 35 years, including Honors Semesters and City as Text™, along with suggested adaptations to multiple educational contexts.

Preparing Tomorrow's Global Leaders: Honors International Education edited by Mary Kay Mulvaney and Kim Klein (2013, 400pp). A valuable resource for initiating or expanding honors study abroad programs, these essays examine theoretical issues, curricular and faculty development, assessment, funding, and security. The monograph also provides models of successful programs that incorporate high-impact educational practices, including City as Text™ pedagogy, service learning, and undergraduate research.

Setting the Table for Diversity edited by Lisa L. Coleman and Jonathan D. Kotinek (2010, 288pp). This collection of essays provides definitions of diversity in honors, explores the challenges and opportunities diversity brings to honors education, and depicts the transformative nature of diversity when coupled with equity and inclusion. These essays discuss African American, Latino/a, international, and first-generation students as well as students with disabilities. Other issues include experiential and service learning, the politics of diversity, and the psychological resistance to it. Appendices relating to NCHC member institutions contain diversity statements and a structural diversity survey.

Shatter the Glassy Stare: Implementing Experiential Learning in Higher Education edited by Peter A. Machonis (2008, 160pp). A companion piece to Place as Text, focusing on recent, innovative applications of City as Text™ teaching strategies. Chapters on campus as text, local neighborhoods, study abroad, science courses, writing exercises, and philosophical considerations, with practical materials for instituting this pedagogy.

Teaching and Learning in Honors edited by Cheryl L. Fuiks and Larry Clark (2000, 128pp). Presents a variety of perspectives on teaching and learning useful to anyone developing new or renovating established honors curricula.

Writing on Your Feet: Reflective Practices in City as Text™ edited by Ada Long (2014, 160pp). A sequel to the NCHC monographs Place as Text: Approaches to Active Learning and Shatter the Glassy Stare: Implementing Experiential Learning in Higher Education, this volume explores the role of reflective writing in the process of active learning while also paying homage to the City as Text™ approach to experiential education that has been pioneered by Bernice Braid and sponsored by NCHC during the past four decades.

Journal of the National Collegiate Honors Council (JNCHC) is a semi-annual periodical featuring scholarly articles on honors education. Articles may include analyses of trends in teaching methodology, articles on interdisciplinary efforts, discussions of problems common to honors programs, items on the national higher education agenda, and presentations of emergent issues relevant to honors education.

Honors in Practice (HIP) is an annual journal that accommodates the need and desire for articles about nuts-and-bolts practices by featuring practical and descriptive essays on topics such as successful honors courses, suggestions for out-of-class experiences, administrative issues, and other topics of interest to honors administrators, faculty, and students.
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