An Examination of the Student Engagement Experiences of Transfer Students

by

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Abstract

The primary purpose of this study was to report on transfer students' engagement in college and compare the findings of those who transferred from a two-year college and those who transferred from another four-year college. The study focused on the importance of engagement in effective educational practices as measured by the National Survey of Student Engagement (NSSE). The sample consisted of 899 senior transfer students of Auburn University.

The National Survey of Student Engagement (NSSE) survey was administered to senior transfer students asking them about how much time and effort they devoted to studying or participating in co-curricular activities, how fully challenged and supported they feel by their college, and how students estimate their educational and personal growth since starting college (NSSE, 2015). The data from the years 2013, 2014, and 2015 were used in this study. The existing data were analyzed using Analysis of Variance (ANOVA) and all mean differences were tested at an alpha level of significance of .05. A one-way Analysis of Variance (ANOVA) was conducted in order to determine the effect of the four Engagement Indicators under the Level of Academic Challenge (*LAC).* These engagement indicators are Higher-Order Learning, Reflective and Integrative Learning, Learning Strategies, and Quantitative Reasoning.

Student characteristics, such as gender and residency status are all found to be related with student engagement.

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"Success is not measured by what you do compare to what others do; it is measured by what you do with the ability GOD gave you." Zig Ziglar

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Chapter I: Introduction

Traditionally, proficiency in reading, writing, and arithmetic has been the entry-level threshold to the job market, however, today's competitive global economy requires employees to think critically, solve problems, innovate, collaborate, and communicate more effectively. These 21st century skills are important to the businesses today and will play even more significant role in the future, particularly as the economy improves and organizations look to grow.

Education continues to be the entry to the middle class, and individuals without postsecondary credentials will become increasingly marginalized in the 21st century economy (American Association of Community Colleges, 2016). In 2009, President Obama called for increasing the number of US citizens with postsecondary education asking ''every American to commit to at least one year of more of higher education or training…'' (Address to Joint Session of Congress, 2009).

For decades, there has been an unwritten rule that if one wants a ''good'' job, they need a diploma from college and having a college degree is vital to thriving in the 21st century economy. Enrollment patterns have indicated that Americans recognize the value of investment in higher education. Higher education student enrollment has increased substantially over the past two decades. According to the National Center for Educational Statistics, fall enrollment in degree-granting postsecondary institutions increased by 21 % between 1994 and 2004 (Nakajima, Dembo, & Mossler, 2012).

Between 2004 and 2014, enrollment increased 17 %, from 17.3 million to 20.2 million. The number of full-time students rose 17 % between 2004 and 2014, while the

number of part-time students rose 16 % (National Center for Educational Statistics, 2016). During the same period, the number of female students rose 15 %, while the number of male students rose 19 %. Although male enrollment increased by a larger percentage than female enrollment between 2004 and 2014, the majority (56 %) of students in 2014 were female. During the most recent part of this period, between 2010 and 2014, enrollment decreased by 4 %, reflecting decreases for both males (3 %) and females (5 %).

Various opportunities are available for students to pursue higher education; however as college tuition rates increase at four-year institutions, many students choose to go to community colleges for postsecondary education (Laanan, 2010). In the last few decades, two-year colleges have become a significant part of American college students' educational career and one of the initial goals of community colleges is to prepare students for four-year colleges. According to the report released by the National Student Clearinghouse Research Center (2015), 46 percent of all students who completed a four-year degree had been enrolled at a two-year institution at some point in the past 10 years. Some students enroll in community colleges expecting to obtain an associate degree that will help them get a job in the labor market upon graduation. While studying in community colleges, students may be advised to take the courses that would help them when they transfer to a four- year college. Students' time in community college could be ineffective if they do not choose the right courses.

An analysis of Education Longitudinal Study (ELS: 2002-06) data shows that 44 percent of low-income students (those with family incomes of less than $25,000 per year) attend community colleges as their first college after high school. In contrast, only 15 % of high-income students enroll in community colleges initially. Similarly, 38 % of students

whose parents did not graduate from college choose community colleges as their first institution, compared with 20 % of students whose parents graduated from college. The same analysis found that 50 percent of Hispanic students start at a community college, along with 31 % of African American students. In comparison, 28 % of white students begin at community colleges.

In fall 2014, 56 % of Hispanic undergraduates were enrolled at community colleges, while 44 % of black students and 39 % of white students were at community colleges. The overall number was 42 %. According to a nationally representative survey of first-time college students in 2003–04, among first-time college students with family incomes of $32,000 or less, 57 % started at a two-year or less-than- two-year college rather than at a four-year institution.

Once students start college, a key factor to whether or not they will survive and thrive in college is the extent to which students take part in educationally effective activities (Kuh, Kinzie, Buckley, Bridges, & Hayek, 2007). With the college experience varies for every student, research suggests a positive link between student engagement and academic performance regardless of student type (Carini, Kuh, & Klein 2006; Pascarella & Terenzini, 2005). Numerous research on college student development shows that students who devote time and energy into educationally purposeful activities, both inside and outside the classroom, perform better academically (Astin, 1993; Pascarella & Terenzini, 2005).

Students and institutions both play a role in student engagement. What the institutions offer socially and academically to improve student success and personal development influence college students' future career. Institutions strive to provide rich learning experiences that develop critical thinking and writing, creativity, social and

academic engagement, and help students become global citizens. The undergraduate college experience is not only about the time spent in the classroom, but also includes social events, involvement in organizations, and campus activities. George Kuh (2001) explains, ‘’without knowing how students spend their time, it’s almost impossible to link student learning outcomes to the educational activities and processes associated with them’’.

Statement of the Research Problem

Financial problems, low high school GPA, and family obligations are among the reasons why high school graduates choose to go to community colleges instead of a four-year college. With the increase in number of students transferring to four-year institutions, the overall successes of universities have been affected by the academic performance of transfer students.

Previous studies have addressed the student engagement experiences of transfer students in four-year institutions; however, they have not addressed engagement in terms of learning strategies, reflective and integrative learning, higher order learning, and quantitative reasoning. This study also compares the student engagement practices between transfer students who came from a two-year college and from a four-year college.

Purpose of the Study

The purpose of this study was to examine the relationship between transfer status (vertical transfers and horizontal transfers) and engagement indicators under the Level of Academic Challenge (*LAC).* These engagement indicators are Higher-Order Learning, Reflective and Integrative Learning, Learning Strategies, and Quantitative Reasoning.

Student characteristics, such as gender, residency status, and enrollment status were also analyzed to see whether or not there is a relationship between student engagement

benchmarks and these student characteristics. With the population of transfer students to four-year institutions increasing, it is becoming more and more necessary to understand the experiences of these transfer students.

Research Questions

This study was an attempt to answer the following questions:

RQ1: Do transfer students from two-year institutions and transfer students from four-year institutions differ in ‘’Higher Order Learning’’?

RQ2: Do transfer students from two-year institutions and transfer students from four-year institutions differ in ‘’Reflective and Integrative Learning’’?

RQ3: Do transfer students from two-year institutions and transfer students from four-year institutions differ in ‘’Learning Strategies’’?

RQ4: Do transfer students from two-year institutions and transfer students from four-year institutions differ in ‘’Quantitative Reasoning’’?

Significance of the Study

Only a few studies have been conducted to evaluate the effects of engagement in effective educational practices, as defined by the National Survey on Student Engagement (NSSE), between transfer statuses. There have been studies regarding whether transfer students who attend four-year universities have higher graduation rates as opposed to native students who began their career at the same institution and graduate from that school. In campuses with large number of transfer students, transfer students have a higher rate of college graduation. When researchers have studied the student engagement experience of transfer students, they usually have not distinguished between students transferring from a community college and students transferring from one four-year institution to another.

This study provides meaningful information to university administrators, faculty advisors, parents, instructors, and professional staff of student affairs department with regards to the student engagement strategies.

Assumptions of the Study

This study had the following assumptions:

1. The data were obtained from Auburn University Office of Institutional Research and the accuracy of data depends on the completeness of student records.
2. The participants answered the items in the survey with careful consideration.
3. The data in this study were self-reported and the survey items were answered by the participants independently.

Limitations of the Study

This study had the following limitations:

1. The transfer students studied in this project are from the years of 2013, 2014, and 2015.
2. The study was limited to senior students who have completed their degrees at Auburn University.
3. The data used in this study are limited to the following variables: (1) gender, (2) age, (3) race, (4) Auburn GPA, (5) residency status, (6) athletic affiliation, (7) academic major, (8) type of transfer, and (9) enrollment status.

Definition of Terms

Community College – A public, two-year postsecondary institution that offers the associate degree. Community colleges typically provide a transfer program, allowing students to transfer to a four-year school to complete their bachelor's degree, and a career program, which provides students with a vocational degree.

Grade Point Average (GPA) – is a measure of academic achievement at an educational institution. GPA is calculated by dividing the total number of grade quality points earned by the total number a student attempts.

Higher Order Learning – This Engagement Indicator captures how much students' coursework emphasizes challenging cognitive tasks such as application, analysis, judgment, and synthesis.

Learning Strategies – Effective learning strategies include identifying key information in readings, reviewing notes after class, and summarizing course material. Knowledge about the prevalence of effective learning strategies helps colleges and universities target interventions to promote student learning and success.

Quantitative Reasoning – Quantitative literacy—the ability to use and understand numerical and statistical information in everyday life— is an increasingly important outcome of higher education. All students, regardless of major, should have ample opportunities to develop their ability to reason quantitatively- to evaluate, support, and critique arguments using numerical and statistical information.

Reflective and Integrative Learning – Instructors emphasizing reflective and integrative learning motivate students to make connections between their learning and the world around them, reexamining their own beliefs and considering issues and ideas from others' perspectives.

Student Engagement – The amount of time and effort students put into their studies and other educationally purposeful activities (National Survey of Student Engagement, 2013).

Senior College Students – A term used to describe a student in the fourth and final year of study.

Transfer Student – A student who has been enrolled at a two-year or four-year institution of higher education and then leaves that institution to enroll in another institution of higher education.

Organization of the Study

The study was conducted to obtain information about the engaging experiences of senior transfer students. The purpose of the study was to provide useful information to faculty, administrators, and other higher education professionals with regard to the differing engagement experiences of senior transfer students.

Chapter I provided background information and historical context for this study, the statement of the research problem, the purpose of the study, the research questions, the significance of the study, the assumptions of the study, the limitations of the study, and the definition of terms. Chapter II presented a review of related literature relevant to student engagement, senior transfer students who pursued their undergraduate studies at Auburn University. Chapter III discussed the design of the study, sources of data, data collection procedures, privacy and confidentiality of participants, instrumentation, and method of data analysis. Chapter IV focused on the results of the data analysis. Finally, Chapter V concluded with an interpretation from the statistical analyses, the conclusions, implications, and recommendations for future research.

Chapter II: Review of Literature

Chapter I provided background information and historical context for this study, statement of the research problem, the purpose of the study, the research questions, the significance of the study, the assumptions of the study, the limitations of the study, and the definition of terms. Chapter II presents a review of research and literature related to engagement in effective educational practices for transfer students as measured by the National Survey of Student Engagement (NSSE). This chapter also provides an overview of the demographics of college students, history of transfer students, transfer student academic integration, and transfer students' barriers.

The study focused on the importance of engagement in effective educational practices as measured by the National Survey of Student Engagement (NSSE). The primary purpose of this study was to report on transfer students' engagement in college and compare the findings of those who transferred from a two-year college and those who transferred from another four-year college.

College Students

A generation or two ago high-school graduates rarely went on to college, yet through the years, college has almost become a rite of passage for teens to pass into adulthood and a good career. In the coming decades, four-fifths of high school graduates will need some form of postsecondary education to acquire the knowledge, skills, and competencies necessary to address the complex social, economic, and political issues they will face.

American Association of Community Colleges (AACC), as the primary advocacy organization for the nation's community colleges, was founded in 1920 and it is representing more than 1,100 associate degree-granting institutions today. Nearly 49 % of community college students are White, 22 % are Hispanic, 14 % are Black, 6 % are Asian/Pacific Islander, and the rest are other ethnicities. The average age for community college students is 28 years, whereas median age is 24 years. Of the students attending community colleges in the United States, 37 % are under the age of 21 (≤ 21), 49 % are between 22 and 39 years of age (22-39), and 14 % are over the age of 40 (40+). Of the students attending community colleges in the United States, 17 % are single parents and 36 % are ''first generation to attend college'' (AACC, 2016).

Table 1

Demographic Comparison of Students in Two- and Four- year Institutions

Profile of Two-Year Student	Profile of Four-Year Student
• The average community college student is 28 years old. • 62% of the 7.3 million students who attend community colleges annually are enrolled part-time (12+ credit hours a semester). • Of those who attend college full-time, 22% hold a full-time job and 40% are employed part time (2012). • 57% of community college students are women. • 49% of community college students are White, 22% are Hispanic, 14% are Black, 6% are Asian/Pacific Islander, and 9% are Other Races.	• The average public four-year student begins post-secondary studies at age 21. • Full-time students represent 79% of undergraduate enrollment at four-year institutions. • More than half of four-year undergraduate students (55.9%) enroll full-time and work part-time. • Women account for 57% of public four-year undergraduate enrollments. • Public four-year institutions enroll 31.4% of all Black undergraduates, 34.3% of Native American undergraduates, and 36.9% of Asian/Pacific Islander undergraduates.

Source: American Association of Community Colleges & American Association of State Colleges and Universities (2016).

Transfer Students

Today, most college students in the United States do not attend a single institution in pursuit of their college degrees. Some students pursue their educational career at different

institutions along many different routes.

The successful attainment of a degree or other credential often depends on a smooth transfer process, as students move between and among higher education institutions. Many states and institutions are working to develop policies and practices that ensure that students can successfully and efficiently make their way from one institution to another and move from one level of learning to another (Association of American Colleges & Universities, 2016).

Transfer students make up a substantial share of undergraduates at four-year institutions in the United States. Students transfer to a new college due to various reasons such as financial circumstances, social circumstances, low high school GPA, sports transfer, military transfer, family obligations, switching majors, returning to college, desiring to be closer to family, and facing academic challenges. With the increase in the number of students transferring to four-year institutions, the overall success of universities has been affected by the academic performance of transfer students.

Adelman (2006) thoroughly analyzed how the trend of attending more than one institution could affect the academic success of transfer students at the national level. He examined how multi-institutional attendance patterns affect educational trajectories and degree completion for transfer students.

When students transfer from one institution to another, adapting to the new setting could be difficult. Some students can adapt quicker than other students can. Students might feel uncomfortable with the people, the environment, and the school, which might lead to disappointment and frustration. Social circumstances could influence the academic achievement and social interactions of the transfer students. Sports transfer is another reason for students to transfer to a new institution because the student athlete may experience a problem with the coach and the scholarship opportunity might no longer be available.

Switching majors is another significant reason for students to transfer. When a student changes major, he/she may realize that their current school does not provide the particular major they consider switching to. In this case, transferring to another institution would be a healthier choice for the student to pursue his/her degree and realize their dreams.

Hildebrandt (1984) conducted a study in the Forestry Department at Iowa State University and found that most transfer students progressed slower in terms of obtaining their degrees and graduated with a greater number of credit hours. She concluded that this trend was related to credit hour loss due to transferring.

Crawford (2003) compared transfer students from a two-year private institution, a two-year public institution, and those who are native to Idaho State University. He concluded that the three cohort groups had almost identical five-year baccalaureate attainment rates. He also found that two-year students who earned an associate degree before coming to Idaho State University obtained their baccalaureate degrees faster than those who did not receive the associate's degree.

Vertical versus Horizontal Transfer

In order to obtain a bachelor's degree, students from a sub-baccalaureate institution (vertical transfers) move directly from a community college or a vocational school to a four-year college or university (Kirk-Kuwaye, 2007). University tuitions may vary significantly throughout the nation. There is a growing trend among students to attend a community college and later transfer to a four-year college to save money. Financial aid options and lower tuition rates are important factors for students when it comes to applying to a college or transferring to another institution.

Numerous researches have been conducted on community college students and on the vertical transfer. Similar to other states in the U. S., four-year colleges in Alabama have attracted more students from community colleges over the last few decades. While studying in community

colleges, students are advised to take the courses that would help them when they transfer to a four-year college. Students' time in community college could be ineffective if they do not choose the right courses.

A horizontal transfer student, on the other hand, is a student who starts at a four-year institution and later transfers to another four-year college or a university. There is a paucity of research on horizontal transfers. Students transferring from community college generally cope better than students transferring from other four-year institutions because community college students expect challenges when transferring (Kirk- Kuwaye& Kirk-Kuwaye, 2007).

Transfer Students' Barriers

There has been a trend in multi-institutional attendance patterns over the last two decades. The proportion of undergraduates transferring to other academic institutions increased from 40 % to 50 % between the 1970s and 1990s (Adelman, 2006). Some students attend a two-year college and later transfer to a four-year institution, while others transfer from another four-year institution. Students may also differ in the number of credit hours they transfer. Some transfer with a few credit hours, while others with their entire associates' degree.

In order to understand the problems transfer students face when they transfer to a new institution, it is critical to look at the process involved. Besides the transferring process, adjustment to the new institution also could be a challenge for transfer students (Townsend, 2008).

Transfer students show a great diversity and experience various challenges when transferring from one college to another. This transition process could affect academic achievement and persistence rates. With the appropriate and efficient support, transfer students could be as successful as their native student counterparts could. Enhanced support services that focus on transfer students will help them improve their academic achievement and social

interactions. Research has shown that transfer students frequently drop out at higher rates and obtain lower GPAs compared to their native student counterparts (Carlan & Byxbe, 2000).

Table 2

Ranking of Transfer Obstacles by Four- and Two- Year Institutions

	Obstacle Ranking	
Transfer Obstacles	**Four-Year Institutions**	**Two-Year Institutions**
Articulation	1	2
Reliable Information/Advising	2	1
Program Specific Transfer	3	3
General Education	4	4
AAS/Technical Education Transfer	5	5
Access/Distance Education	6	7
Cost/Financial Aid	7	6

Source: American Association of Community Colleges & American Association of State Colleges and Universities (2015). Improving access to the baccalaureate.

Chronological Review of Studies on Transfer Students' Academic Success

A recent report from the National Center for Education Statistics (NCES) showed that 47.3% of first-time bachelor's degree recipients who began in a four-year institution enrolled in more than one institution; 28.3 % enrolled in two, 13 % enrolled in three, and 6.1 % enrolled in four or more institutions (Pascarella, 2005).

Researchers and scholars have been interested in comparing the educational performance of native students and transfer students since the early 1920s in the United States. Koos (1924) compared transfer and native students using grade percentages and intelligence tests and found that two groups to be very similar in academic achievement and competence. Eels (1927) conducted a study on junior college transfers at Stanford University and found that the two-year students scored higher on intelligence tests and had higher grade percentage than native

students after their first quarter at Stanford. Some of the early studies that compared the academic performance of transfer students and native students provided conflicting information. Allen (1930), in his study at Baylor University, compared 330 transfer students from 26 junior colleges and found no significant difference between the cumulative grade point averages of transfer students and the native students at Baylor University.

Lee (1966) conducted a study on transfer students in the University of California at Berkeley between 1961 and 1962 and found that only 38 % of the transfer students finished their undergraduate degree in four semesters after transfer. Langston (1971) studied 2,150 community college transfer students who transferred to the University of Iowa in 1967 and 1968 and found that 46 % of those transfer students graduated in seven semesters and 9 % of them were still enrolled in the program. Those who entered the university in 1968, only 25 % of them graduated in five semesters and 28 % of them were still enrolled in the program.

Hildebrandt (1984) conducted a study in the Forestry Department at Iowa State University and found that most transfer students progressed slower in terms of obtaining their degrees and graduated with a greater number of credit hours. She concluded that this trend was related to credit hours loss due to transferring. Crawford (2003), compared transfer students from a two-year private institution, a two- year public institution, and native Idaho State University students. He concluded that the three cohort groups had almost identical five-year baccalaureate attainment rates. He also found that two-year students who earned an associate degree before coming to Idaho State University obtained their baccalaureate degrees faster than those who did not receive the associates' degree.

In his study, Handel (2007) examined whether or not transfer students in four-year colleges that have a large share of transfer students perform better academically. He did not find a statistically significant difference between the groups of students he had studied. When

researchers have studied the academic success and graduation rates of transfer students, they have not distinguished between students transferring from a community college to a four-year college and those transferring from one four-year institution to another. The distinction between these two groups is significant when the researcher's goal is to look at the motivation of transfer students to a four-year institution.

Zimmerman and Schunk (1997) described the balance among intention, behavior, and preparation to learn as self-regulated learning. Learners are guided by personally set goals and task-related strategies. The construct of self-regulation refers to the degree to which the learner is meta-cognitively, motivationally, and behaviorally active in their own learning process.

Student Engagement

Student engagement can be defined as participating in educationally effective practices both inside and outside of the classroom. This operational definition was borrowed from Kuh et al., (2007), who also notes:

> "Student engagement represents two critical features. The first is the amount of time and effort students put into their studies and other educationally purposeful activities. The second component of student engagement is how the institution deploys its resources and organizes the curriculum, other learning opportunities, and support services to induce students to participate in activities that lead to the experiences and desired outcomes such as persistence, satisfaction, learning, and graduation" (p. 44).

"The impact of college is largely determined by individual effort and involvement in the academic, interpersonal, and extracurricular offerings on a campus" (Pascarella & Terenzini, 2005, p. 602). Researchers have found that educationally purposeful engagement produces gains,

benefits, and outcomes in the following domains: cognitive and intellectual skill development and college adjustment.

NSSE Instrument

The National Survey of Student Engagement (NSSE) is a survey instrument that asks college students about how much time and effort they devote to studying or participating in co-curricular activities, how fully challenged and supported they feel by their college, and how students estimate their educational and personal growth since starting college (NSSE, 2015). The National Survey of Student Engagement is a self-reported survey used to measure the level of student engagement at universities and colleges in Canada and the United States as it relates to learning and engagement (Kuh, 2003). The instrument is used to collect information from first-year and senior students on college campuses. Due to the need to address the multi-dimensional nature of student engagement, the National Survey of Student Engagement introduced ten Engagement Indicators designed under four engagement benchmarks: Academic Challenge, Learning with Peers, Experiences with Faculty, and Campus Environment. The NSSE was developed in 1998 with a financial support from the Pew Charitable Trusts, however it was administered in the spring of 2000 for the first time and since then, there have been over 1600 academic institutions that have participated in the survey. The survey is administered and the results of the survey are evaluated by Indiana University School of Education Center for Postsecondary Research. The results from the NSSE point to areas where colleges are performing well in enhancing learning, also to the areas of students' undergraduate experiences that need to be improved (Kuh, 2003).

NSSE survey items are grouped within several Engagement Indicators. These indicators fit within five engagement themes adapted from the Benchmarks of Effective Educational Practice, as follows:

- Academic Challenge
    - Higher Order Learning
    - Reflective and Integrative Learning
    - Quantitative Reasoning
    - Learning Strategies
- Learning with Peers
    - Collaborative Learning
    - Discussions with Diverse Others
- Experiences with Faculty
    - Student-Faculty Interaction
    - Effective Teaching Practice
- Campus Environment
    - Quality of Interactions
    - Supportive Environment
- High-Impact Practices
    - Special undergraduate Opportunities
    - Service-Learning
    - Study Abroad
    - Research with Faculty
    - Internships

(Retrieved from http://nsse.indiana.edu/html/annual_results.cfm).

Effective Educational Practices

The five benchmarks of educational practice are based on forty-two key items from the NSSE survey that address various aspects of the student experience in college. These five NSSE

benchmarks of Effective Educational Practices include (a) Level of Academic Challenge (LAC- 11 items), (b) Active and Collaborative Learning (ACL- 7 items), (c) Student-Faculty Interaction (SFI- 6 items), (d) Enriching Educational Experiences (EEE- 12 items), and (e) Supportive Campus Environment (SCE- 6 items).

Why Effective Educational Practice Matters

Voluminous research on college student development shows that the time and energy students devote to educationally purposeful activities is the single best predictor of their learning and personal development (Astin, 1993; Pascarella & Terenzini, 1991, 2005). Student engagement is closely related to institutional practices provided by the colleges and universities. Institutional environments that are perceived by students as inclusive and affirming are important to student learning.

All of these factors and conditions are related to student satisfaction, learning and development on a variety of dimensions. Thus, educationally effective colleges and universities channel students' energies toward appropriate activities and engage them at a high level in these activities.

Many colleges and universities claim to provide high-quality learning environments for their students. If faculty and administrators use principles of good practice to arrange the curriculum and other aspects of the college experience, students would put forth more effort. Students would write more papers, read more books, meet more frequently with faculty and peers, and use information technology appropriately, all of which would result in greater gains in such areas as critical thinking, problem solving, effective communication, and responsible citizenship.

Schools point to educationally enriching opportunities, such as honor programs, co-curricular leadership development programs and collaboration with faculty members on a

research project. For every student who has such an experience, there are others who do not connect in meaningful ways with their teachers and peers, or take advantage of learning opportunities. Ultimately, many students leave school prematurely, or put so little effort into their learning that they fall short of benefiting from college to the extent they should.

Academic Major

Studies have been conducted on student engagement and field of study (Indiana University Center for Postsecondary Research, 2010), the role academic major plays in NSSE (Kuh, 2003), the impact of major fields on students (Astin, 1977, 1993), academic major as a within-college effect (Pascarella & Terenzini, 2005), and academic major and gender differences among African Americans undergraduates at historically black colleges and universities.

The Indiana University Center for Postsecondary Research analyzed results from specific major fields to investigate disciplinary influences and student characteristics of student engagement. They demonstrated that participation in high-impact practices among seniors varied by majors in general biology, business, English, and psychology. The Indiana University Center for Postsecondary Research (2010) found that half of students majoring in history and political science completed a senior culminating experience (average 33%), and three out of four seniors in nursing and physical education did service-learning as a part of their coursework (average 49%). However, they also found that only two in five seniors majoring in business administration or accounting held internships or field placements (average 50%).

Thus, considering that international students tend to have higher representation in certain majors, this study applied the concept of academic major as critical mass to international students. It examined if academic major of international students affects their student engagement and if predictions regarding student satisfaction and academic success can be made

based on their critical mass.

NSSE uses only primary majors and distinguishes nine major field categories: arts and humanities, biological sciences, business, education, engineering, physical science, other professions, social sciences, and other majors (National Survey of Student Engagement, 2015). NSEE majors are shown in Table 3.

Table 3

NSSE's Major Field Categories

Categories of Majors	Majors	
Arts and Humanities	• Art (fine and applied) • History • Music • Speech • Other Arts and Humanities	• English (language and literature) • Language and Literature (Except English) • Philosophy • Theater or Drama
Biological Sciences	• Biology (general) • Botany • Marine (life) Science • Zoology	• Biochemistry or Biophysics • Environmental Sciences • Microbiology or Bacteriology • Other Biological Science
Business	• Accounting • Finance • Marketing • Other Business	• Business Administration (general) • International Business • Management
Education	• Business Education • Music or Recreation • Special Education	• Elementary/Middle School Education • Secondary Education • Other Education
Engineering	• Aero/Astro-nautical Engineering • Chemical Engineering • Industrial Engineering • Mechanical Engineering	• Civil Engineering • Electrical or Electronic Engineering • Materials Engineering •
Other Professions	• Architecture • Health Technology (medical, dental, laboratory) • Library/Archival Science • Dentistry • Nursing • Allied Health/Other Medical • Other Professional	• Urban Planning • Law • Medicine • Veterinarian • Pharmacy • Therapy (occupational, physical, speech) •
Social Sciences	• Anthropology • Ethnic Studies • Political Science (including government, international relations) • Social Work	• Economics • Geography • Psychology • Sociology

Other Majors (not categorized)	• Gender Studies • Agriculture • Computer Science • Natural Resources and Conservation • Criminal Justice • Parks, Recreation, Leisure Studies, Sports Management • Technical/Vocational	• Other Social Science • Commutations • Family Studies • Kinesiology • Military Science • Public Administration • Other Field

Retrieved from NSSE Student Major Report, 2016.

Transfer Student Academic Integration: Theoretical Framework

Kuh (2001) defines student engagement as: experiences during college that strengthen a student's capacity for continuous learning and personal development. Smaller schools generally engage students more effectively; however, similar sized schools could vary significantly. Student engagement varies more within a given school than between schools (Kuh, 2003). On-campus students and full-time students have a higher engagement rate since they take more classes and spend more time preparing for class than their part-time counterparts (Kuh, 2003).

Astin's I-E-O Model and Theory of Involvement

Alexander Astin's 1985 theory of Student Involvement describes the importance of student involvement in college. The core concept of his theory is based on three elements of inputs, environments, and outcomes. His theory involves active participation in the learning process.

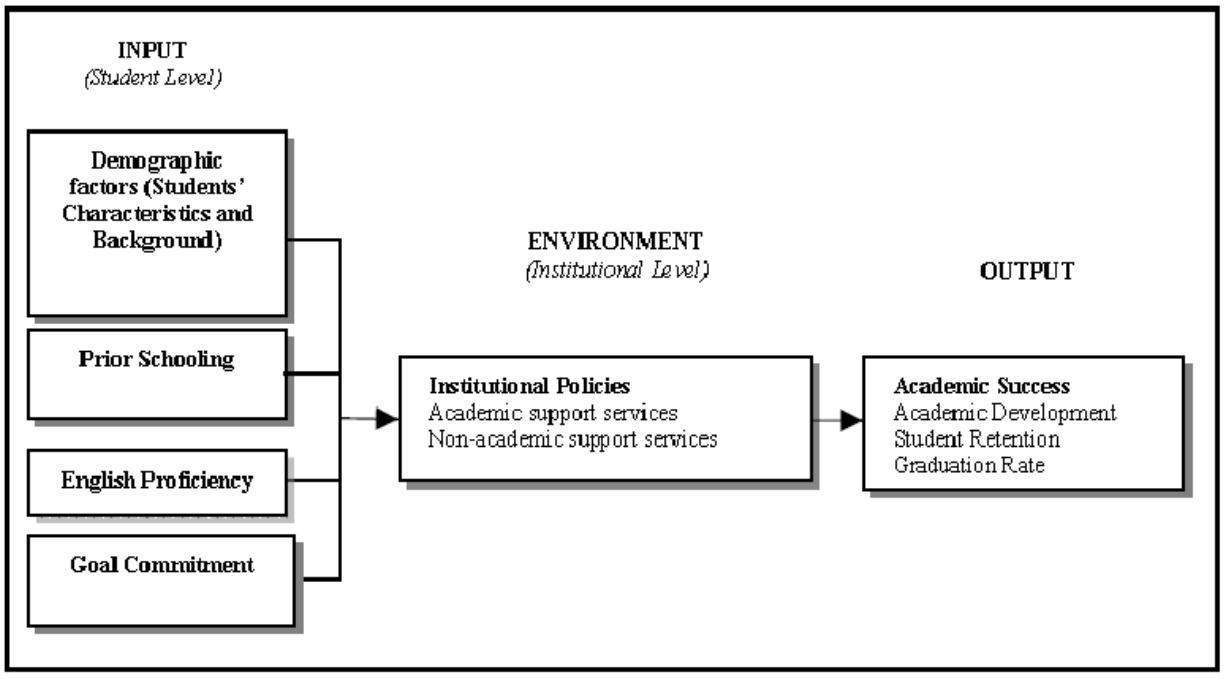

Figure 1. Astin's input-environment-output model (1984, 1993, 1999).

Pascarella's Model for Assessing Student Change

Engagement as the Outcome Variable

The primary purpose of this study was to report on transfer students' engagement in college and compare the findings of those who transferred from a two-year college and those who transferred from another four-year college. Transfer status was independent variable and engagement was the dependent variable.

The most basic assumption of Astin's Involvement theory is that the more time and energy students invest in academic and co-curricular student activities the more learning that takes place (Astin, 1977; 1993). According to the literature review and theoretical framework, student behaviors and institutional features are the leading contributors to student learning and development.

NSSE's first benchmark of effective educational practice recognizes that challenging intellectual and creative work is critical to student learning and collegiate quality. High expectations for student performance and emphasis on importance of

academic effort promote high levels of student achievement. Such activities include time spent preparing for class; number of assigned textbooks, books, papers, and reports; and coursework emphasizing analyzing, synthesizing, making judgments and applying theories. As a result of previous research on student engagement, the following variables (Academic challenge engagement indicators) were used as dependent variables: *Higher Order Learning, Reflective and Integrative Learning, Learning Strategies, and Quantitative Reasoning.*

Research Questions

This study was an attempt to answer the following questions:

RQ1: Do transfer students from two-year institutions and transfer students from four- year institutions differ in ‘’Higher Order Learning’’?

RQ2: Do transfer students from two-year institutions and transfer students from four- year institutions differ in ‘’Reflective and Integrative Learning’’?

RQ3: Do transfer students from two-year institutions and transfer students from four- year institutions differ in ‘’Learning Strategies’’?

RQ4: Do transfer students from two-year institutions and transfer students from four- year institutions differ in ‘’Quantitative Reasoning’’?

Summary

Chapter II presented a history of transfer students and provided an overview of the development of the National Survey for Student Engagement (NSSE) used in the study (Kuh, 2001; 2003). Financial problems, low high school GPA and family obligations are among the reasons why high school graduates prefer to go to community colleges over a four-year institution.

According to the recent research, more than one-third of community college students transfer to a four-year university. While studying in community colleges, students may be advised to take the courses that would help them when they transfer to a four- year college. Students' time in community college could be ineffective if they do not choose the right courses. Transfer students to four-year colleges may come either from a community college or from another four-year institution.

Student engagement can be defined as participating in educationally effective practices both inside and outside of the classroom. The five benchmarks of educational practice are based on forty-two key items from the NSSE survey that address various aspects of the student experience in college. Alexander Astin's 1985 theory of Student Involvement describes the importance of student involvement in college. The core concept of his theory is based on three elements of inputs, environments, and outcomes. His theory involves active participation in the learning process.

Chapter III: Methods

Chapter I provided background information and historical context for this study, statement of the research problem, the purpose of the study, the research questions, the significance of the study, the assumptions of the study, the limitations of the study, and the definition of terms. Chapter II presented a review of research and literature related to engagement in effective educational practices for transfer students as measured by the National Survey of Student Engagement (NSSE). Chapter II also provided an overview of the demographics of college students, history of transfer students, transfer student academic integration, and transfer students' barriers.

The study focused on the importance of engagement in effective educational practices as measured by the National Survey of Student Engagement (NSSE). The primary purpose of this study was to report on transfer students' engagement in college and compare the findings of those who transferred from a two-year college and those who transferred from another four-year college. This chapter begins with an introduction of the research questions and the model that guided this study, the data source and sample used for this study are discussed, and issues of validity and reliability are addressed. Additionally, the appropriate data analysis methods for analysis are reviewed.

Research Questions

This study was an attempt to answer the following questions:

RQ1: Do transfer students from two-year institutions and transfer students from four-year institutions differ in ‘’Higher Order Learning’’?

RQ2: Do transfer students from two-year institutions and transfer students from four-

year institutions differ in ‘’Reflective and Integrative Learning’’?

RQ3: Do transfer students from two-year institutions and transfer students from four-year institutions differ in ‘’Learning Strategies’’?

RQ4: Do transfer students from two-year institutions and transfer students from four-year institutions differ in ‘’Quantitative Reasoning’’?

Hypotheses

Based on the review of the literature, four null hypotheses were established regarding the influence of transfer status on student engagement experiences. HoR1R: There is no statistically significant difference between transfer students from two-year institutions and transfer students from four-year institutions in ‘’Higher Order Learning’’. HoR2R: There is no statistically significant difference between transfer students from two-year institutions and transfer students from four-year institutions in ‘’Reflective and Integrative Learning’’.HoR3R: There is no statistically significant difference between transfer students from two-year institutions and transfer students from four-year institutions in ‘’Learning Strategies’’. HoR4R: There is no statistically significant difference between transfer students from two-year institutions and transfer students from four-year institutions in ‘’Quantitative Reasoning’’.

Research Model

The conceptual framework that guided this study was based on Astin’s (1984) Involvement Theory, Pascarella’s (1985) Model for Assessing Student Change, and Tinto’s (1987) Integration Theory. The types of variables included in this study were dependent variables (Academic Challenge Engagement Indicators) and independent variables (transfer status).

Data Source

The research design for this study involved a secondary analysis of data collected from senior transfer students at Auburn University that participated in the 2013, 2014, and 2015 administration of the NSSE *College Student Report*. Since NSSE launch in 2000, more than 1,500 four-year colleges and universities in the U.S. and Canada have participated with 564 U.S. and 21 Canadian institutions participating in 2015. Participating institutions generally mirror the national distribution of institutions in the 2010 Basic Carnegie Classification. In addition to the participation of individual institutions, state and multi-campus systems may coordinate system- level participation in NSSE. Institutions sharing a common interest or mission also can coordinate to add questions to the core survey through consortium participation.

Sample

All participants in the project were senior transfer students who have completed at least 90 credit hours. The researcher selected records of two student groups: (1) transfer students who came from a two-year college to Auburn University, and (2) transfer students who transferred from another four-year institution. All participants were 19 years of age or older. The sample used in this study came from the NSSE 2013, NSSE 2014, and NSSE 2015 datasets. In the 2015 National Survey of Student Engagement (NSSE), the institutions reflected the diversity of U.S higher education with respect to institutional type, region, and location (NSSE, 2015a).

Reliability and Validity Analysis

The reliability evidence presented here assesses the extent to which items within a scale are internally consistent or homogenous and the extent to which the results are similar across periods of time or different forms of the NSSE survey. Use of a reliable instrument or

scale implies that data and results are reproducible. Due to the sophistication and research origin of the instrument, the NSSE relies on high content validity and reliability, continuously improved based on data collection (Kuh, 2009b).

For the 2013 NSSE data, high levels of reliability was reported, based on reported Cronbach's alpha, which for social science research generally means indicators of 70 % or above. In these data, the Cronbach's alpha showed that Engagement Indicators had a high degree of reliability for senior participants: higher-order learning α= .86; reflective & integrative learning α= .88; learning strategies α= .78, and quantitative reasoning α= .87.

For the 2014 NSSE data, high levels of reliability was reported, based on reported Cronbach's alpha, which for social science research generally means indicators of 70 % or above. In these data, the Cronbach's alpha showed that Engagement Indicators had a high degree of reliability for senior participants: higher-order learning α= .86; reflective & integrative learning α= .88; learning strategies α= .78, and quantitative reasoning α= .87.

For the 2015 NSSE data, high levels of reliability was reported, based on reported Cronbach's alpha, which for social science research generally means indicators of 70 % or above. In these data, the Cronbach's alpha showed that Engagement Indicators had a high degree of reliability for senior participants: higher-order learning α= .87; reflective & integrative learning α= .89; learning strategies α= .79, and quantitative reasoning α= .87. (NSSE, 2015a).

Confirmatory Factor Analysis

Academic Challenge. CFA results for the Academic Challenge theme, including Reflective & Integrative Learning (RI), Higher-Order Learning (HO), Quantitative Reasoning (QR), and Learning Strategies (LS) EIs, demonstrated very good model fit overall, with all model fit indices meeting the cutoff criteria. All four factors correlated between .37 and .63 for

first-year students, .33 and .65 for seniors, .29 and .67 for online first-year students, and .36 and .67 for online seniors, suggesting that the factors are related, but do not pose overwhelming multicollinearity concerns. The standardized regression weights for all factors across all four groups were strong, ranging from approximately .6 to .9. Overall, fit indices, factor correlations, and regression weights provided sufficient construct validity evidence for RI, HO, QR, and LS.

Table 4

Academic Challenge: Standardized Regression Weights

	Seniors	First-Year Students
Reflective & Integrative Learning		
RIintegrate	.587	.608
RIsocietal	.716	.691
RIdiverse	.691	.659
RIownview	.749	.711
RIperspect	.734	.696
RInewview	.717	.686
Higher-Order Learning		
HOapply	.645	.648
HOanalyze	.770	.768
HOevaluate	.844	.827
HOform	.805	.780
Quantitative Reasoning		
QRconclude	.773	.735
QRproblem	.884	.862
QRevaluate	.844	.843
Learning Strategies		
LSreading	.609	.596
LSnotes	.754	.738
LSsummary	.865	.846

Variables in the Study

The research variables in this study are divided into two categories: dependent variables and independent variables. These variables were derived from the literature review and the data available for this study.

Dependent Variables- Academic Challenge Engagement Indicators. Four engagement indicators under Level of Academic Challenge (*LAC),* compose the dependent variables in this study. Each one of these indicators is continuous variable, standardized for the purpose of this study. The variables are as follows:

1) Academic Challenge – Higher-Order Learning
2) Reflective and Integrative Learning
3) Quantitative Reasoning
4) Learning Strategies

Higher-order learning uses a four-item scale used to measure progressive critical thinking skills. Items include: During the current school year, how much has your coursework emphasized the following:

a. Applying facts, theories, or methods to practical problems or new situations
b. Analyzing an idea, experience, or line of reasoning in depth by examining its parts
c. Evaluating a point of view, decision, or information source
d. Forming a new idea or understanding from various pieces of information (NSSE, 2015).

Reflective and Integrative Learning includes a seven-item scale to measure how a student internally examines and explores an issue or concept and relates to an experience. Items include: During the current school year, how often have you:

a. Combined ideas from different courses when completing assignments
b. Connected your learning to societal problems or issues
c. Included diverse perspectives (political, religious, racial/ethnic, gender, etc.) in course discussion or assignments
d. Examined the strengths and weaknesses of your own views on a topic or issue
e. Tried to better understand someone else's views by imagining how an issue looks form his or her perspective
f. Learned something that changed the way you understand an issue or concept
g. Connected ideas from your courses to your prior experiences and knowledge (NSSE, 2015).

Quantitative Reasoning, or Quantitative Literacy, is the ability to use and understand numerical and statistical information in everyday life – is an increasingly important outcome of higher education. All students, regardless of major, should have ample opportunities to develop their ability to reason quantitatively—to evaluate, support, and critique arguments using numerical and statistical information. Items include: During the current school year, how often have you:

a. Reached conclusions based on your own analysis of numerical information (numbers, graphs, statistics, etc.)
b. Used numerical information to examine a real-world problem or issue

(unemployment, climate change, public health, etc.)

c. Evaluate what others have concluded from numerical information

Learning Strategies, effective learning strategies, include identifying key information in readings reviewing notes after class, and summarizing course material. Knowledge about the prevalence of effective learning strategies helps colleges and universities target interventions to promote student learning and success. Items include: During the current school year, how often have you:

a. Identified key information from reading assignments
b. Reviewed your notes after class
c. Summarized what you learned in class or from course materials

Independent Variable-Transfer Status.

a. Transfer Categories (Item 28 on the Survey) classifies transfer students into several transfer categories which include:
    a. Vocational or Technical School, named as **votech05** with label vocational or technical school
    b. Community or Junior College, named as **comcol05** with label community or junior college
    c. Four-Year College, named as **fouryr05** with label four-year college
    d. Vertical transfer students (those who start at a community college or a vocational school before transferring into a four-year institution) are measured by the variables **comcol05** and **votech** with response values as 0-checked and 1-non-checked.
    e. Horizontal transfer students (those who begin as one four-year

institution and later transferred into another institution) are measured by the variable **fouryr05** with response values as 0-checked and 1-non-checked.

Summary

This chapter discussed the methodology used in the study. Chapter III presented the hypotheses, the research design, including the data source, the sample, research methods, and analytic procedures. The sources of data and the data collection procedures, privacy and confidentiality of student data collected. The data analysis and results are presented in Chapter IV.

Chapter IV: Data Analysis and Results

Chapter I provided background information and historical context for this study, statement of the research problem, the purpose of the study, the research questions, the significance of the study, the assumptions of the study, the limitations of the study, and the definition of terms. Chapter II presented a review of research and literature related to engagement in effective educational practices for transfer students as measured by the National Survey of Student Engagement (NSSE). Chapter II also provided an overview of the demographics of college students, history of transfer students, transfer student academic integration, and transfer students' barriers. Chapter III discussed the design of the study, sources of data, data collection procedures, privacy and confidentiality of participants, instrumentation, and method of data analysis. Chapter IV focuses on the results of the data analysis.

Sample Statistics

Before major analyses were conducted, descriptive statistics were obtained and preliminary analyses were conducted to examine the characteristics of the variables. Demographic characteristics for transfer students used in the study were presented in Table 3. in terms of age, gender, race, type of transfer, Auburn GPA, residency status, athletic affiliation, academic major, and enrollment status.

The sample size of this study was 899 senior transfer students. Female students were the majority of the sample (55.3%), and 44.7% of the respondents were male. The average age of the participants was 23.59 with a standard deviation of 4.417. The ages ranged from a minimum age of 19 to a maximum age of 42 years. The majority of the transfer students were Caucasian. Of

the 899 transfer students, 789 (87.8%) were Caucasian, 43 (4.8%) were Black, 24 (2.7 %) were Hispanic, and 43 (4.7%) were students of other races.

Grade point average (GPA) for the transfer students was calculated on a four-point scale. The mean weighted high school GPA for the transfer students was 3.884 with a standard deviation of .486. The high school GPA scores ranged from a minimum GPA of 2.10 to a maximum GPA of 4.99. The mean AU GPA for the transfer students was 3.075 with a standard deviation of .605. The AU GPA scores ranged from a minimum GPA of 0.00 to a maximum GPA of 4.00. The total number of students who transferred from a two-year college (horizontal transfer) was 591, whereas the number who transferred from a four-year college (vertical transfer) was 308.

The majority of respondents were enrolled full-time (81.5) and 18.5 % of them were part-time students. The distribution of the academic major indicated that 21.8 % of the respondents were in engineering, 19.3 % were in liberal arts, 14.3 % were in business, 13.3 % were in sciences & mathematics, 8.7 % were in education, 7.9 % were in human sciences, 5.1 % were in agriculture, 5.0 % were in architecture design, and 4.6 % of the respondents reported “other’’ majors. Student athletes only comprised of 4.8 % of the total number of the respondents, whereas 95.2 % of them reported as “Non-athlete’’. The distribution for residency status indicated that 67.3 % of the respondents were resident and 32.7 % of them reported as non-resident. Table 5 presents the student characteristics of the sample used in this particular study.

Table 5

Descriptive Statistics of the Control Variables (N=899)

Variables	Frequency	Percentage (%)
Gender		
Female	497	55.3
Male	402	44.7
Race		
American Indian	11	11
Asian	12	1.3
Black	43	4.8
Hispanic	24	2.7
White	789	87.8
Other	20	2.2
Type of Transfer		
Horizontal	591	65.7
Vertical	308	34.3
Enrollment Status		
Full-Time	732	81.5
Part-Time	167	18.5
Auburn GPA		
Top (A- through A)	407	45.2
Medium (B- through B+)	406	45.1
Low (C- through C+)	86	9.7
Academic Major		
Liberal Arts	174	19.3
Sciences & Mathematics	119	13.3
Business	128	14.3
Education	78	8.7
Engineering	196	21.8
Agriculture	46	5.1
Architecture Design	45	5.0
Human Sciences	71	7.9
Other	41	4.6
Age		
19-22	592	65.9
22-30	282	31.5
Athletic Affiliation		
Athlete	52	4.8
Non-Athlete	847	95.2
Residency Status		
Resident	605	67.3
Non-Resident	294	32.7

N=899

Sample Specific Reliability and Validity

Reliability Analysis. Table 6 below shows the Cronbach Alpha values for each student engagement benchmark.

Higher Order Learning. The alpha coefficient for the seven items of *Higher Order Learning* is .867, suggesting that the items have relatively high internal consistency since a reliability coefficient of .70 or higher is considered "acceptable" in most social science research situations.

Reflective and Integrative Learning. The alpha coefficient for the four items of *Reflective and Integrative Learning* is .680, though the value is below .70 since it is very close to the acceptable value, it can be said that it is still acceptable.

Learning Strategies. The alpha coefficient for the four items of *Learning Strategies* is .750, suggesting that the items have relatively high internal consistency since a reliability coefficient of .70 or higher is considered "acceptable" in most social science research situations.

Quantitative Reasoning. The alpha coefficient for the four items of *Quantitative Reasoning* is .849, suggesting that the items have relatively high internal consistency since a reliability coefficient of .70 or higher is considered "acceptable" in most social science research situations.

Table 6

Reliability Analysis

	Sample Item	Cronbach's Alpha	N of Items
Higher Order Learning	Memorizing course material	.867	7
Reflective & Integrative Learning	Combined ideas from different courses when completing assignments	.680	4
Learning Strategies	Identified key information from reading assignments	.750	3
Quantitative Reasoning	Reached conclusions based on your own analysis of numerical information (numbers, graphs, statistics, etc.)	.849	3

Principal Component Analysis. Table 7 below shows that the first four components (6.163, 1.982, 1.479, and 1.297) have eigenvalues that exceeds the criterion value of 1.00. The first component accounts for nearly 36% of the total variability in the original variables, the second component accounts for nearly 12%, the third component accounts for nearly 9%, and the fourth component accounts for about 7%.

Table 7

Total Variance

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.163	36.251	36.251	6.163	36.251	36.251
2	1.479	8.700	56.612	1.982	11.661	47.912
3	1.479	11.661	47.912	1.479	8.700	56.612
4	1.297	7.628	64.240	1.297	7.628	64.240
5	.868	5.103	69.343			
6	.740	4.350	73.694			
7	.644	3.790	77.484			
8	.602	3.541	81.025			
9	.497	2.922	83.947			
10	.395	2.325	86.272			
11	.386	2.271	88.543			
12	.369	2.173	90.715			
13	.352	2.071	92.787			
14	.327	1.925	94.712			
15	.309	1.818	96.529			
16	.300	1.766	98.295			
17	.290	1.705	100.00			

Table 8 presents factor loadings (pattern coefficients) below. The possible loading for each component ranges from .00 to +1.00. Component 1, 2, 3, and 4 contain only high positive loadings, which is referred to as a unipolar factor.

Factor labels. RI (Reflective & Integrative Learning); HO (Higher Order Learning); QR (Quantitative Reasoning); and LS (Learning Strategies).

Table 8

Rotated Component Matrixes

	Component			
	RI	HO	QR	LS
Combined ideas from different courses when completing assignments	.574			
Connected your learning to societal problems or issues	.765			
Included diverse perspectives (political, religious, racial/ethnic, gender, etc.) in course discussions or assignments	.754			
Examined the strengths and weaknesses of your own views on a topic or issue	.776			
Tried to better understand someone else's view by imagining how an issue looks from his or her perspective	.767			
Learned something that changed the way you understand an issue or concept	.659			
Connected ideas from your courses to your prior experiences and knowledge	.657			
Coursework emphasized: Applying facts, theories, or methods to practical problems or new situations		.701		
Coursework emphasized: Analyzing an idea, experience, or line of reasoning in depth by examining its parts		.804		
Coursework emphasized: Evaluating a point of view, decision , or information source		.716		
Coursework emphasized: Forming a new idea or understanding from various pieces of information		.755		
Identified key information from reading assignments				.597
Reviewed your notes after class				.869
Summarized what you learned in class or from course materials				.829
Reached conclusions based on your own analysis of numerical information (numbers, graphs, statistics, etc.)			.857	
Used numerical information to examine a real-world problem or issue (unemployment, climate change, public health, etc.)			.826	
Evaluated what others have concluded from numerical information			.834	

Extraction Method: Principal Component Analysis (a. Rotation converged in 5 iterations)

Descriptive statistics of transfer student engagement by benchmarks (Higher Order Learning, Reflective and Integrative Learning, Learning Strategies, and Quantitative Reasoning) is presented below at Table 9.

Table 9

Descriptive Statistics of Transfer Status by Engagement Benchmarks

Variables	N	Mean	St.Dev.	Value Label
HOaverage				
Horizontal Transfers	591	3.0021	.71123	2 Year
Vertical Transfers	308	3.0184	.72693	4 Year
RIaverage				
Horizontal Transfers	591	2.8237	.67314	2 Year
Vertical Transfers	308	2.8103	.64118	4 Year
LSaverage				
Horizontal Transfers	591	2.9645	.74811	2 Year
Vertical Transfers	308	2.9688	.72258	4 Year
QRaverage				
Horizontal Transfers	591	2.5218	.89721	2 Year
Vertical Transfers	308	2.5119	.83987	4 Year

The differences within the student groups were determined using one-way analysis of variances (ANOVA) tests. Table 10 presents the results from this analysis.

Table 10

One-Way ANOVA for Transfer Status and Student Engagement Benchmarks

		MS	df	F	*p*	Partial Eta Squared
HOaverage						
	TransType	.043	1	.084	.771	.000
	Error	.512	897			
RIaverage						
	TransType	.030	1	.068	.794	.000
	Error	.441	897			
LSaverage						
	TransType	.003	1	.005	.944	.000
	Error	.549	897			
QRaverage						
	TransType	.016	1	.020	*.887*	.000
	Error	.777	897			

Results of Research Question One

RQ1: Do transfer students from two-year institutions and transfer students from four year institutions differ in "*Higher Order Learning*?"

The following null hypothesis was formulated to answer the first research question: HoR1R: There is no statistically significant difference between transfer students from two-year institutions and transfer students from four-year institutions in "*Higher Order Learning''*. The null hypothesis was tested using the Analysis of Variance (ANOVA). Results indicated that no statistically significant difference in "*Higher Order learning''* (Dependent Variable) between transfer students from two-year institutions and transfer students from four-year institutions (Transfer Status-Independent Variable), F (1, 816) = .084, p= .771. This value was not statistically significant at the .05 alpha level.

The mean score of *Higher Order Learning* for the students who transferred from a two-year college (N= 591) was 3.002 with a standard deviation of .711. The mean score of *Higher Order Learning* for the students who transferred from a four-year college (N= 227) was 3.018 with a standard deviation of .726. Table 9 presents the means and standard deviations of the dependent variable (*Higher Order Learning*) for transfer students and Table 10 presents the ANOVA table for transfer status and *Higher Order Learning*.

An analysis of covariance was conducted to determine the effect of gender, enrollment status, and residency status on *Higher Order Learning* the results indicated that 5.1 % (adjusted R square= .051) of the variance in Higher Order Learning is explained by the gender variable and .2 % is explained by residency status after controlling for the student type variable. ANCOVA results (Table 11) indicate a significant main effect for gender, $F(1,888)=5.870$, $p<.05$, partial $\eta 2=.051$; no significant main effect for enrollment status

F(1,888)=.731, p>.05, partial η2=.000; a significant main effect for residency status F(1,888)=3.567, p<.05, partial η2=.002.

Covariates.

Gender. Item 16 on the survey, this variable is named as **sex**, to reflect a student's gender, with response values of 0-Male and 1-Female.

*Enrollment Status. P*art-time or full-time, was assessed by item 22 with variable named as enrollment indicating "Thinking about this current academic term… How would you characterize your enrollment?" with response values for this variable being, 0=less than full time (part time) and 1=full-time.

Residency Status. On campus or commuter is assessed by item 26 in the survey, named **livenow**, asked, "Which of the following best describes where you are living now while attending college?" In this study, it is recoded into dummy variables measuring residential status.

Table 11 presents the results of Analysis of Covariance for Higher Order Learning.

Table 11

ANCOVA Table for Higher Order Learning

Tests of Between-Subjects Effects
Dependent Variable: Higher-Order Learning

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	1898.335[a]	4	474.584	2.475	.042	.053
Intercept	213219.617	1	213219.617	1112.132	.000	.371
TransType	3.785	1	3.785	.020	.888	.000
Gender	1125.420	1	1125.420	5.870	.015	.051
Enrollmentstatus	140.099	1	140.099	.731	.393	.000
Residencystatus	683.836	1	683.836	3.567	.049	.002
Error	361970.154	888	191.721			
Total	3451350.000	893				
Corrected Total	363686.489	892				

a. R Squared = .053

Adjusted Descriptive Statistics for Higher Order Learning by Gender and Residency Status

Dependent Variable: Higher Order Learning

Gender	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Female	1.477	.584	.332	2.623
Male	1.239	.420	.251	2.227

Dependent Variable Higher Order Learning

Residency Status	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
On Campus	-.748	.617	-1.957	.462
Commuter	1.239	.420	.251	2.227

Results of Research Question Two

RQ2: Do transfer students from two-year institutions and transfer students from four-year institutions differ in "*Reflective and Integrative Learning*?"

The following null hypothesis was formulated to answer the second research question: HoR2R: There is no statistically significant difference between transfer students from two-year institutions and transfer students from four-year institutions in "*Reflective*

and Integrative Learning''. The null hypothesis was tested using the Analysis of Variance (ANOVA). 10TR10Tesults indicated that no statistically significant difference in "*Reflective and Integrative Learning''* (Dependent Variable) between transfer students from two-year institutions and transfer students from four-year institutions (Transfer Status-Independent Variable), F (1, 831) = .068, p= .794. This value was not statistically significant at the .05 alpha level. The mean score *Reflective and Integrative Learning* for the students who transferred from a two-year college (N= 601) was 2.823 with a standard deviation of .673. The mean score of *Reflective and Integrative Learning* for the students who transferred from a four-year college (N= 232) was 2.810 with a standard deviation of .641. Table 9 presents the means and standard deviations of the dependent variable (*Reflective & Integrative Learning*) for transfer students and Table 10 presents the ANOVA table for transfer status and *Reflective & Integrative Learning*.

An analysis of covariance was conducted to determine the effect of gender, enrollment status, and residency status on *Reflective and Integrative Learning,* the results indicated that 5.1 % (adjusted R square= .051) of the variance in *Reflective and Integrative Learning* is explained by the gender variable and .2 % is explained by residency status after controlling for the student type variable. ANCOVA results (Table 12) indicate a significant main effect for gender, $F(1,841)=10.154$, $p<.05$, partial $\eta 2=.005$; no significant main effect for enrollment status, $F(1,841)=.080$, $p>.05$, partial $\eta 2=.000$; no significant main effect for residency status $F(1,841)=.007$, $p>.05$, partial $\eta 2=.000$.

Table 12 presents the results of Analysis of Covariance for Reflective and Integrative Learning.

Table 12

ANCOVA Table for Reflective and Integrative Learning

Tests of Between-Subjects Effects Dependent Variable: Reflective and Integrative Learning						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	1689.548[a]	4	422.387	2.617	.034	.005
Intercept	179914.771	1	179914.771	1114.631	.000	.365
TransType	2.198	1	2.198	.014	.907	.000
Gender	1638.940	1	1638.940	10.154	.001	.005
Enrollmentstatus	12.841	1	12.841	.080	.778	.000
Residencystatus	1.078	1	1.078	.007	.935	.000
Error	313300.577	841	161.412			
Total	2905578.000	746				
Corrected Total	314990.125	845				

a. R Squared = .005

Results of Research Question Three

RQ1: Do you transfer students from two-year institutions and transfer students from four-year institutions differ in "*Learning Strategies?"*

Ho_1: There is no statistically significant difference between transfer students from two-year institutions and transfer students from four-year institutions in "*Learning Strategies''*. The null hypothesis was tested using the Analysis of Variance (ANOVA). Results indicated that no statistically significant difference in "*Learning Strategies''* (Dependent Variable) between transfer students from two-year institutions and transfer students from four-year institutions (Transfer Status-Independent Variable), F (1, 713)= .005, p= .944. This value was not statistically significant at the .05 alpha level.

The mean score of *Learning Strategies* for the students who transferred from a two-year college (N= 512) was 2.964 with a standard deviation of .748. The mean score of *Learning Strategies* for the students who transferred from a four-year college (N= 203) was 2.968 with a standard deviation of .722. Table 9 presents the means and standard deviations

of the dependent variable (*Learning Strategies*) for transfer students Table 10 presents the ANOVA table for transfer status and *Learning Strategies*.

An analysis of covariance was conducted to determine the effect of gender, enrollment status, and residency status on *Learning Strategies, the* results indicated that 5.1 % (adjusted *R* square= .051) of the variance in *Learning Strategies* is explained by the gender variable and .2 % is explained by residency status after controlling for the student type variable. ANCOVA results (Table 13) indicate a significant main effect for gender, $F(1,803)=26.816$, $p<.001$, partial $\eta 2=.014$; no significant main effect for enrollment status, $F(1,841)=1.083$, $p>.05$, partial $\eta 2=.001$; no significant main effect for residency status, $F(1,803)=.054$, $p>.05$, partial $\eta 2=.000$.

Table 13 presents the results of Analysis of Covariance for Learning Strategies.

Table 13

ANCOVA Table for Learning Strategies

Tests of Between-Subjects Effects
Dependent Variable: Learning Strategies

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	6128.037	4	1532.009	7.050	.000	.015
Intercept	193256.320	1	193256.320	889.295	.000	.318
TransType	230.130	1	230.130	1.059	.304	.001
Gender	5827.523	1	5827.523	26.816	.000	.014
Enrollmentstatus	235.352	1	235.352	1.083	.298	.001
Residencystatus	11.691	1	11.691	.054	.817	.000
Error	413548.867	803	217.314			
Total	3276836.000	808				
Corrected Total	419676.904	807				

a. R Squared = .015

Results of Research Question Four

RQ4: Do transfer students from two-year institutions and transfer students from four-year institutions differ in "*Quantitative Reasoning''*?

The following null hypothesis was formulated to answer the fourth research question: Ho_4: There is no statistically significant difference between transfer students from two-year institutions and transfer students from four-year institutions in "*Quantitative Reasoning''*. The null hypothesis was tested using the Analysis of Variance (ANOVA). Results indicated that no statistically significant difference in "*Quantitative Reasoning''* (Dependent Variable) between transfer students from two-year institutions and transfer students from four-year institutions (Transfer Status-Independent Variable), F (1, 803)= .020, p= .887. This value was not statistically significant at the .05 alpha level. The mean score of *Quantitative Reasoning* for the students who transferred from a two-year college (N= 581) was 2.521 with a standard deviation of .897. The mean score of *Quantitative Reasoning* for the students who transferred from a four-year college (N= 224) was 2.511 with a standard deviation of .839. Table 9 presents the means and standard deviations of the dependent variable (*Quantitative Reasoning*) for transfer students Table 10 presents the ANOVA table for transfer status and *Quantitative Reasoning*.

An analysis of covariance was conducted to determine the effect of gender, enrollment status, and residency status on *Quantitative Reasoning,* the results indicated that 5.1 % (adjusted R square= .051) of the variance in *Quantitative Reasoning* is explained by the gender variable and .2 % is explained by residency status after controlling for the student type variable. ANCOVA results (Table 14) indicate a significant main effect for gender, $F(1,840)=72.654$, $p<.001$, partial $\eta 2=.036$; no significant main effect for enrollment status, $F(1,840)=1.820$, $p>.05$, partial $\eta 2=.001$; a significant main effect for residency status, $F(1,840)=5.055$, $p<.05$, partial $\eta 2=.003$.

Table 14 presents the results of Analysis of Covariance for Quantitative Reasoning.

Table 14

ANCOVA Table for Quantitative Reasoning

Tests of Between-Subjects Effects Dependent Variable: Quantitative Reasoning						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	23317.213[a]	4	5829.303	20.359	.000	.040
Intercept	92332.280	1	92332.280	322.473	.000	.143
TransType	981.081	1	981.081	3.426	.064	.002
Gender	20802.612	1	20802.612	72.654	.000	.036
Enrollmentstatus	521.162	1	521.162	1.820	.177	.001
Residencystatus	1447.506	1	1447.506	5.055	.025	.003
Error	555472.460	840	286.326			
Total	2390170.000	845				
Corrected Total	278789.673	844				

a. R Squared = .040

Summary

The purpose of this study was to determine whether a relationship existed between transfer status and student engagement benchmarks. Besides exploring the relationship between transfer students and student engagement, this study sought to determine if differences existed within the transfer student population; between horizontal and vertical transfer students. Lastly, this study looked for additional student characteristics that affected student engagement that were suggested by the literature. Chapter 4 presented the results of the data analysis as pertained to the research questions. The results suggest that there are no statistically significant differences between transfer status and Academic Challenge benchmarks; *Higher Order Learning, Learning Strategies, Reflective & Integrative Learning,* and *Quantitative Reasoning.* There was a gender (*Gender*) effect for all benchmarks and residency status (*Residencystatus*) had an effect on *Higher Order Learning* and *Quantitative Reasoning*. Descriptive data presented in this chapter summarized the demographic characteristics of the students who participated in this study. Chapter 5 provides a discussion of

the results and presents implications for policy, practice, and research.

Chapter V: Summary and Conclusion

Over the last couple of decades, the body of literature on student engagement has been grown. However, most studies have focused on the conventional non-transfer students, and only a few studies have analyzed student engagement experience of transfer students. Chapter I provided background information and historical context for this study, statement of the research problem, the purpose of the study, the research questions, the significance of the study, the assumptions of the study, the limitations of the study, and the definition of terms. Chapter II presented a review of research and literature related to engagement in effective educational practices for transfer students as measured by the National Survey of Student Engagement (NSSE). Chapter II also provided an overview of the demographics of college students, history of transfer students, transfer student academic integration, and transfer students' barriers. Chapter III discussed the design of the study, sources of data, data collection procedures, privacy and confidentiality of participants, instrumentation, and method of data analysis. The existing data were analyzed using statistical procedures as described in the previous chapter. All differences were tested at an alpha level of significance of .05. Chapter V summarizes and discusses the findings and presents implications as well as limitations and recommendations for future research on the topic.

The main purpose of this study was to study the relationship between transfer status and student engagement and to find out whether transfer types were related to differences in the engagement levels of transfer students.

Summary of Results

This study described demographics of vertical transfer students and horizontal transfer students studied at Auburn University and responded to the NSSE survey in the years 2013, 2014, and 2015. Missing data, incomplete answers, and inappropriate survey responses (including answers of '5' for all responses) were detected and eliminated so that only students who completed the entire survey were included. After eliminating the errors in the data set, approximately 899 respondents remained, allowing for the potential of substantial statistical power in the analysis.

Chapter 4 provided information about student demographics used for the sample. Demographic characteristics for transfer students used in the study were summarized in terms of age, gender, ethnicity, student type and grade point average. The sample size of this study was 899. In terms of gender, 497 (55.3%) were female and 402 (44.7%) were male. The average age of the participants was 23.59 with a standard deviation of 4.417. The ages ranged from a minimum age of 19 to a maximum age of 42 years. The age range was 23 years. The majority of the transfer students were Caucasian. Of the 899 transfer students, 789 (87.8%) were Caucasian, 43 (4.8%) were Black, and 66 (7.4%) were students of other ethnicities.

Analysis of Variance (ANCOVA) was used to find the means of each group and to determine whether there were differences in these means across each one of the student engagement benchmarks. The ANCOVA used one categorical variable to compare the two groups of students in his study: vertical transfers and horizontal transfers.

Higher Order Learning. Research question one investigated whether vertical transfer students and horizontal transfer students differed in "Higher Order Learning''. An ANCOVA (Analysis of Covariance) procedure was used for this research question. Results indicated no

statistically significant difference in “Higher Order Learning’’ (Dependent Variable) between transfer students from two-year institutions and transfer students from four-year institutions (Transfer Status-Independent Variable). After covariates (gender, enrollment status, and residency status) were added to the analysis, it was found that gender and residency status had an effect on Higher Order Learning.

Higher-Order Learning (*HL*) was measured to evaluate the amount a student believed that his or her coursework encouraged progressive critical thinking skills. Question 2 from the 2015 NSSE *College Student Report* stated, “During the current school year, how much has your coursework emphasized the following mental activities?” The *analyze* item allowed students to share how much their coursework emphasized “analyzing the basic elements of an idea, experience, or theory, such as examining a particular case or situation in depth and considering its components” on a four-item scale ranging from (1) very little to (4) very much. Some senior transfer student reported that their coursework might not have emphasized critical thinking skills.

Reflective and Integrative Learning. Research question two investigated whether vertical transfer students and horizontal transfer students differed in “Reflective and Integrative Learning’’. An ANCOVA (Analysis of Covariance) procedure was used for this research question. Results indicated no statistically significant difference in “Reflective and Integrative Learning’’ (Dependent Variable) between transfer students from two-year institutions and transfer students from four-year institutions (Transfer Status-Independent Variable). After covariates (gender, enrollment status, and residency status) were added to the analysis, it was found that only gender had a slight effect on Reflective and Quantitative Learning.

Learning Strategies. Research question three investigated whether vertical transfer students and horizontal transfer students differed in "Learning Strategies''. An ANCOVA (Analysis of Covariance) procedure was used for this research question. Results indicated no statistically significant difference in "Learning Strategies'' (Dependent Variable) between transfer students from two-year institutions and transfer students from four-year institutions (Transfer Status-Independent Variable). After covariates (gender, enrollment status, and residency status) were added to the analysis, it was found that gender had a slight effect on Learning Strategies.

Quantitative Reasoning. Research question four investigated whether vertical transfer students and horizontal transfer students differed in "Quantitative Reasoning''. An ANCOVA (Analysis of Covariance) procedure was used for this research question. Results indicated no statistically significant difference in "Quantitative Reasoning'' (Dependent Variable) between transfer students from two-year institutions and transfer students from four-year institutions (Transfer Status-Independent Variable). After covariates (gender, enrollment status, and residency status) were added to the analysis, it was found that gender and residency status had an effect on Quantitative Reasoning.

Conclusions

The purpose of the present study was to examine the relationship between transfer status (vertical and horizontal transfers) and student engagement using National Survey of Student Engagement (NSSE) data.

Student Engagement. This study found that transfer students do not differ on student engagement practices among themselves oh higher order learning, learning strategies, reflective and integrative learning, and quantitative reasoning. Control variables (gender,

residency status, and enrollment status), except for gender, did not have a statistically significant difference on student engagement either.

Since transfer students have become a significant part of the academic success of colleges and universities, it is important that stakeholders do not lose focus of the importance of engagement for all students on campus. The path to college success is often indirect for a very large number of students. The transfer function of the U.S system of higher education has allowed students to opt out to institutions that better serve and address their needs.

Discussion

This study provides a comprehensive explanation of the student engagement of transfer students at Auburn University. The descriptive statistics and ANCOVA analysis demonstrated that transfer students (vertical transfers and horizontal transfers) DO NOT differ in student engagement. The findings of this study have important implications for administrators, faculty, and other stakeholders interested in student engagement and success. Students are most likely to be successful in transferring academic credits when they have higher grade point averages and move from a community college to a four-year institution.

Less engagement will ultimately lead to higher dropout rates, higher debt among students, and overall dissatisfaction with the educational experience. While this study did not collect any data on student debt, it collected data on student engagement, which is linked to the outcome of student success.

Policy makers at the institutional level must create ways to facilitate the transfer process; offer programs and services that specifically target transfer students and their needs. Due to multiple priorities and limited resources, funding and distribution of resources are generally major concerns. Investing in quality research on student engagement, especially for

transfer students, will be necessary to improve the transfer student experience. Surveys show that 80 % of all incoming community college students desire to transfer to a four-year institution and earn a bachelor's degree. Community colleges are the largest postsecondary education sector and its share of the undergraduate population is likely to rise whereas enrollments at four-year institutions have been flat lately. Community colleges also attract more students from underserved minorities than four-year colleges and universities. First-generation students, Black Americans, Latino Americans, students from the lowest income level and single-parent families enroll at community colleges at greater proportions and this proportion is likely to increase substantially in the upcoming decades due to the increase in the population from ethnic minorities.

This study was conducted with the senior students from a public university in the southeastern part of the country where there is a relatively low diversity and students are racially homogenous. Many transfer students who attended to Auburn University either came from Alabama or nearby states which share a lot in common with Alabama in terms of ethnicity, culture, religion, and socioeconomic status. The Universities and colleges in other parts of the country such as the Northeast and West Coast have more diversity in student body and transfer students show various student engagement experiences in those places. Out of the 899 transfer students, 87.8 % were Caucasian. Besides, in terms of socioeconomic status, there was not a significant difference among students. One possible explanation for the similar answers from transfer students at Auburn University is related to homogeneity of ethnicity, culture, religion, and socioeconomic status, therefore students have similar engagement experiences and according to the results of this study, there was no statistically significant difference between transfer students (vertical versus horizontal) in student engagement

benchmarks. Given that universities and colleges in other regions of the U.S may draw transfer students from more diverse backgrounds. It is important that university researchers and administrators conduct university-specific and regional studies to assess whether or not horizontal and vertical students need to be given different considerations in relation to orientations.

Previous study on student engagement shows that college students put more focus on student-faculty interaction than the teachers did with their students. According to the research, students are more interested in student involvement activities, impacting school life, and they aim to have to relationship with the faculty, the university administration, school personnel, and other fellow students based on respect and care.

Limitations

As previously discussed in Chapter I, there were several limitations in this study. One of the major limitations of this study is the use of a self-reported data which can be affected by the ability of the respondents to provide honest and accurate information in their responses. This study used a national survey for the evaluation of engagement. Participants were only selected from Auburn University who completed 90 credit hours so information regarding students other than senior transfer students is not known. This study only examined the student engagement of vertical and horizontal transfer students. Factors such as socioeconomic status and standardized test scores were not used in this study. Despite these limitations, this research serves as a valuable contribution to the literature related to the student engagement of transfer students.

Recommendations for Future Research

The main purpose of this study was to study the relationship between transfer status and student engagement and to find out whether transfer types were related to differences in the engagement levels of transfer students. There are several areas for future researchers to look into and analyze. The findings of this study have provided many possibilities for future investigations that would benefit effective educational practices in American colleges and universities.

First, the sample used in this study is comprised of 899 senior Auburn University transfer students. A more representative sample would yield more comprehensive results. A state-level or national level longitudinal study would give additional information to university administrators, faculty advisors, parents, instructors, and professional staff of student affairs department with regards to student engagement strategies.

Second, this study addresses the engagement patterns of senior transfer students. Further studies could examine the engagement patterns of international students, and such studies would likely yield meaningful information and provide important policy and practice implications.

Third, this study was a quantitative research study, however for further studies qualitative studies or mixed-methods studies could be utilized to further contribute to the literature. Qualitative research would cover transfer students' engagement issues in great depth and detail and provide data collection based on human experiences which would likely provide additional information about the engagement patterns of transfer students over time.

Fourth, the sample used in this study is comprised of senior transfer students only. Future studies could examine the engagement patterns of first-year transfer students and

compare them with senior transfer students which would provide additional information and provide important policy and practice implications.

Fifth, this study looked at the GPA as a measure of academic success. Future studies might use a combination of several variables to measure academic success.

Sixth, further research needs to be done in other parts of the country where there is more diversity which is one of the factors that needs to be taken into consideration when it comes to assessing student engagement experiences of college transfer students.

For transfer students who experience difficulties with transition to the new academic institution, self-regulation could be added to the Astin's Input-Environment-Output model in relation to the Academic Challenge benchmarks because it might positively affect the benchmarks which would yield better academic development, student retention, and graduation rates.

New Model based on Astin's I-E-O Model

The current study might help with strategic decision making for university administrators, educators, teachers, school principals to invest resources into implementing educational programs that aims to increase achievement through increasing student engagement.

The results of this study indicated that student engagement experience of transfer students do not differ based on the transfer status (vertical or horizontal transfer). Adding self-regulation to Astin's Input-Environment-Output model would help transfer students obtaining better results in academic success characteristics such as academic development, student retention, and graduation rate.

Based on previous studies indicating a positive association between student engagement factors and academic achievement it is expected that student engagement would have a positive effect on achievement. It is an understandable assumption to find that student engagement benchmarks incorporated with self-regulation has a positive impact on academic development, student retention, and graduation rates.

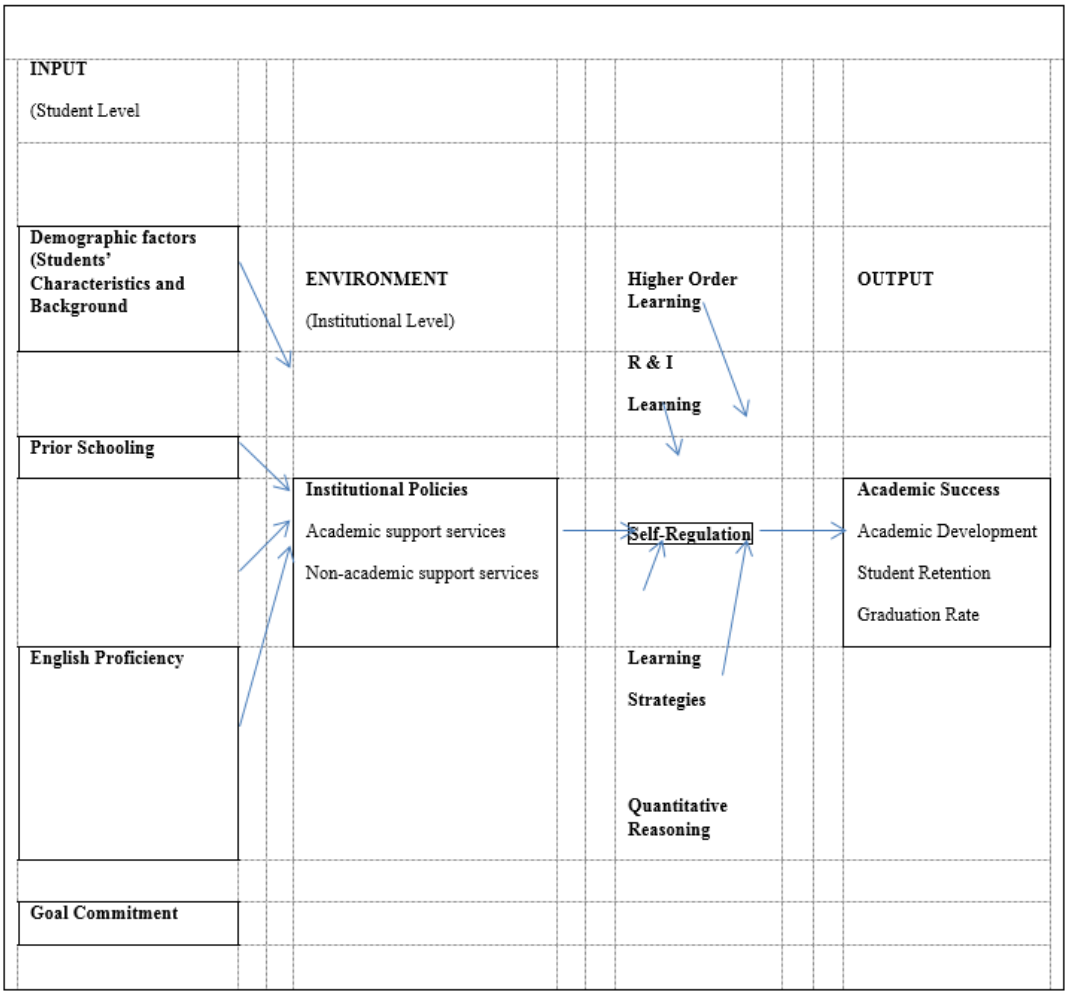

Figure 2. New model based on Astin's I-E-O Model

Summary

As institutions continue to focus efforts toward improving student engagement, it is important that stakeholders do not lose focus of the importance of engagement for all students on campus. The path to college success is often indirect for a very large number of students. The transfer function of the U.S. system of higher education has allowed students to opt out to institutions that better serve and address their needs. The more engaged students become with their institutions, the more likely they are to succeed academically and to graduate.

Policy makers at the institutional level must create ways to facilitate the transfer process; offer programs and services that specifically target transfer students and their needs. Due to multiple priorities and limited resources, funding and distribution of resources are generally major concerns. Investing in quality research on student engagement, especially for transfer students will be necessary to improve the transfer student experience.

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Appendix A

IRB Approval Letter from Auburn University

AUBURN UNIVERSITY INSTITUTIONAL REVIEW BOARD for RESEARCH INVOLVING HUMAN SUBJECTS

REQUEST for MODIFICATION

For help, contact: **THE OFFICE OF RESEARCH COMPLIANCE (ORC)**, 115 Ramsay Hall, Auburn University
Phone: 334-844-5966 **e-mail:** IRBAdmin@auburn.edu **Web Address:** http://www.auburn.edu/research/vpr/ohs

Revised 2.1.2014 **Submit completed form to IRBsubmit@auburn.edu or 115 Ramsay Hall, Auburn University 36849.**

Form must be populated using Adobe Acrobat / Pro 9 or greater standalone program (do not fill out in browser). Hand written forms will not be accepted

1. **Protocol Number:** 15-505 EX 1601
2. **Current IRB Approval Dates: From:** 01/05/16 **To:** 01/04/19
3. **Project Title:** An Examination of the Student Engagement Experiences of Transfer and Native Students

4.

Mehmet Mirze Baydu	PhD Student	EFLT	334-734 6125	mmb0014@auburn.edu
Principal Investigator	**Title**	**Department**	**Phone**	**AU E-Mail** (primary)
Mehmet Mirze Baydu	311 W Glenn Ave Apt 23			mirze0983@gmail.com
PI Signature	**Mailing Address**			**Alternate E-Mail**
Margaret Ross	Margaret Ross	EFLT	334-745-4270	rossma1@auburn.edu
Faculty Advisor	**FA Signature**	**Department**	**Phone**	**AU E-Mail**

Name of Current Department Head: Sherida Downer **AU E-Mail:** downesh@auburn.edu

5. **Current External Funding Agency and Grant number:** N/A

6. a. **List any contractors, sub-contractors, other entities associated with this project:**

N/A

b. **List any other IRBs associated with this project:** N/A

7. **Nature of change in protocol: (Mark all that apply)**

- ☐ **Change in Key Personnel** (attach CITI forms for new personnel)
- ☐ **Change in Sites** (attach permission forms for new sites)
- ☐ **Change in methods for data storage/protection or location of data/consent documents**
- ☑ **Change in project purpose or questions**
- ☐ **Change in population or recruitment** (attach new or revised recruitment materials as needed)
- ☐ **Change in consent procedures** (attach new or revised consent documents as needed)
- ☐ **Change in data collection methods or procedures** (attach new data collection forms as needed)
- ☐ **Other (explain):** _____

FOR ORC OFFICE USE ONLY

DATE RECEIVED IN ORC: _____ by _____
DATE OF IRB REVIEW: _____ by _____
DATE OF IRB APPROVAL: _____ by _____
COMMENTS:

MODIFIC
PROTOC
MODIFIC
INTERVA

The Auburn University Institutional Review Board has approved this Document for use from 04/27/2016 to 01/04/2019
Protocol # 15-505 EX 1601

8. **Briefly list** *(numbered or bulleted)* **the activities that have occurred up to this point, particularly those that involved participants.**

1- The principal investigator had access to student de-identified data through Auburn University Office of Institutional Research via e-mail after the IRB form had been approved.

2- There has been no change pertaining to involved participants.

9. **For each item marked in Question #7, describe the requested changes to your research protocol, with an explanation and/or rationale for each.** (*Additional pages may be attached if needed to provide a complete response.)*

After working on the data obtained from Auburn University Office of Institutional Research, the principal investigator realized that the data did not fully address the research questions and decided to modify the project purpose and research questions.

Research Questions:

1- Do transfer students from 2-year institutions and transfer students from 4-year institutions differ in "Higher-Order Learning"?

2- Do transfer students from 2-year institutions and transfer students from 4-year institutions differ in "Reflective and Integrative Learning"?

3- Do transfer students from 2-year institutions and transfer students from 4-year institutions differ in "Learning Strategies"?

4- Do transfer students from 2-year institutions and transfer students from 4-year institutions differ in "Quantitative Reasoning"?

10. **Identify any changes in the anticipated risks and / or benefits to the participants.**

There is no risk involved to the participants.

11. **Identify any changes in the safeguards or precautions that will be used to address anticipated risks.**

There is no change in the safeguards or precautions.

12. Attach a copy of all "stamped" IRB-approved documents you are currently using. *(information letters, consents, flyers, etc.)*

Appendix B

National Survey of Student Engagement

NSSE national survey of student engagement
THE COLLEGE STUDENT REPORT

0% Complete

During the current school year, about how often have you done the following?

	Very often	Often	Sometimes	Never
Asked questions or contributed to course discussions in other ways				
Prepared two or more drafts of a paper or assignment before turning it in				
Come to class without completing readings or assignments				
Attended an art exhibit, play, or other arts performance (dance, music, etc.)				
Asked another student to help you understand course material				
Explained course material to one or more students				
Prepared for exams by discussing or working through course material with other students				
Worked with other students on course projects or assignments				
Given a course presentation				

During the current school year, about how often have you done the following?

	Very often	Often	Sometimes	Never
Combined ideas from different courses when completing assignments				
Connected your learning to societal problems or issues				
Included diverse perspectives (political, religious, racial/ethnic, gender, etc.) in course discussions or assignments				
Examined the strengths and weaknesses of your own views on a topic or issue				
Tried to better understand someone else's views by imagining how an issue looks from his or her perspective				
Learned something that changed the way you understand an issue or concept				
Connected ideas from your courses to your prior experiences and knowledge				

During the current school year, about how often have you done the following?

	Very often	Often	Sometimes	Never
Talked about career plans with a faculty member	○	○	○	○
Worked with a faculty member on activities other than coursework (committees, student groups, etc.)	○	○	○	○
Discussed course topics, ideas, or concepts with a faculty member outside of class	○	○	○	○
Discussed your academic performance with a faculty member	○	○	○	○

During the current school year, how much has your coursework emphasized the following?

	Very much	Quite a bit	Some	Very little
Memorizing course material	○	○	○	○
Applying facts, theories, or methods to practical problems or new situations	○	○	○	○
Analyzing an idea, experience, or line of reasoning in depth by examining its parts	○	○	○	○
Evaluating a point of view, decision, or information source	○	○	○	○
Forming a new idea or understanding from various pieces of information	○	○	○	○

During the current school year, to what extent have your instructors done the following?

	Very much	Quite a bit	Some	Very little
Clearly explained course goals and requirements	○	○	○	○
Taught course sessions in an organized way	○	○	○	○
Used examples or illustrations to explain difficult points	○	○	○	○
Provided feedback on a draft or work in progress	○	○	○	○
Provided prompt and detailed feedback on tests or completed assignments	○	○	○	○

During the current school year, about how often have you done the following?

	Very often	Often	Sometimes	Never
Reached conclusions based on your own analysis of numerical information (numbers, graphs, statistics, etc.)	○	○	○	○
Used numerical information to examine a real-world problem or issue (unemployment, climate change, public health, etc.)	○	○	○	○
Evaluated what others have concluded from numerical information	○	○	○	○

NSSE national survey of student engagement
THE COLLEGE STUDENT REPORT

26% Complete

During the current school year, about how many papers, reports, or other writing tasks of the following lengths have you been assigned? (Include those not yet completed.)

	None	1-2	3-5	6-10	11-15	16-20	More than 20 papers
Up to 5 pages	○	○	○	○	○	○	○
Between 6 and 10 pages	○	○	○	○	○	○	○
11 pages or more	○	○	○	○	○	○	○

During the current school year, about how often have you had discussions with people from the following groups?

	Very often	Often	Sometimes	Never
People of a race or ethnicity other than your own	○	○	○	○
People from an economic background other than your own	○	○	○	○
People with religious beliefs other than your own	○	○	○	○
People with political views other than your own	○	○	○	○

During the current school year, about how often have you done the following?

	Very often	Often	Sometimes	Never
Identified key information from reading assignments	○	○	○	○
Reviewed your notes after class	○	○	○	○
Summarized what you learned in class or from course materials	○	○	○	○

During the current school year, to what extent have your courses challenged you to do your best work?

Not at all ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 Very much

Which of the following have you done or do you plan to do before you graduate?

	Done or in progress	Plan to do	Do not plan to do	Have not decided
Participate in an internship, co-op, field experience, student teaching, or clinical placement	○	○	○	○
Hold a formal leadership role in a student organization or group	○	○	○	○
Participate in a learning community or some other formal program where groups of students take two or more classes together	○	○	○	○
Participate in a study abroad program	○	○	○	○
Work with a faculty member on a research project	○	○	○	○
Complete a culminating senior experience (capstone course, senior project or thesis, comprehensive exam, portfolio, etc.)	○	○	○	○

About how many of your courses at this institution have included a community-based project (service-learning)?

- All
- Most
- Some
- None

Indicate the quality of your interactions with the following people at your institution.

	Poor 1	2	3	4	5	6	Excellent 7	*Not Applicable*
Students								
Academic advisors								
Faculty								
Student services staff (career services, student activities, housing, etc.)								
Other administrative staff and offices (registrar, financial aid, etc.)								

Continue

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NSSE national survey of student engagement
THE COLLEGE STUDENT REPORT

46% Complete

How much does your institution emphasize the following?

	Very much	Quite a bit	Some	Very little
Spending significant amounts of time studying and on academic work	○	○	○	○
Providing support to help students succeed academically	○	○	○	○
Using learning support services (tutoring services, writing center, etc.)	○	○	○	○
Encouraging contact among students from different backgrounds (social, racial/ethnic, religious, etc.)	○	○	○	○
Providing opportunities to be involved socially	○	○	○	○
Providing support for your overall well-being (recreation, health care, counseling, etc.)	○	○	○	○
Helping you manage your non-academic responsibilities (work, family, etc.)	○	○	○	○
Attending campus activities and events (performing arts, athletic events, etc.)	○	○	○	○
Attending events that address important social, economic, or political issues	○	○	○	○

About how many hours do you spend in a typical 7-day week doing the following?

	Hours per week							
	0	1-5	6-10	11-15	16-20	21-25	26-30	More than 30
Preparing for class (studying, reading, writing, doing homework or lab work, analyzing data, rehearsing, and other academic activities)	○	○	○	○	○	○	○	○
Participating in co-curricular activities (organizations, campus publications, student government, fraternity or sorority, intercollegiate or intramural sports, etc.)	○	○	○	○	○	○	○	○
Working for pay **on campus**	○	○	○	○	○	○	○	○
Working for pay **off campus**	○	○	○	○	○	○	○	○
Doing community service or volunteer work	○	○	○	○	○	○	○	○
Relaxing and socializing (time with friends, video games, TV or videos, keeping up with friends online, etc.)	○	○	○	○	○	○	○	○
Providing care for dependents (children, parents, etc.)	○	○	○	○	○	○	○	○
Commuting to campus (driving, walking, etc.)	○	○	○	○	○	○	○	○

Of the time you spend preparing for class in a typical 7-day week, about how much is on *assigned reading*?

- Very little
- Some
- About half
- Most
- Almost all

How much has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?

	Very much	Quite a bit	Some	Very little
Writing clearly and effectively				
Speaking clearly and effectively				
Thinking critically and analytically				
Analyzing numerical and statistical information				
Acquiring job- or work-related knowledge and skills				
Working effectively with others				
Developing or clarifying a personal code of values and ethics				
Understanding people of other backgrounds (economic, racial/ethnic, political, religious, nationality, etc.)				
Solving complex real-world problems				
Being an informed and active citizen				

How would you evaluate your entire educational experience at this institution?

- Excellent
- Good
- Fair
- Poor

If you could start over again, would you go to the *same institution* you are now attending?

- Definitely yes
- Probably yes
- Probably no
- Definitely no

How many majors do you plan to complete? (Do not count minors.)

- One
- More than one

Please enter your major or expected major:

Major

Second Major

Continue

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NSSE national survey of student engagement
THE COLLEGE STUDENT REPORT

70% Complete

Why do we ask about your personal background?

What is your class level?

- Freshman/first-year
- Sophomore
- Junior
- Senior
- Unclassified

Thinking about this current academic term, are you a full-time student?

- Yes
- No

How many courses are you taking for credit this current academic term?

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7 or more

Of these, how many are *entirely online*?

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7 or more

What have most of your grades been up to now at this institution?

- A
- A-
- B+
- B
- B-
- C+
- C
- C- or lower

Did you begin college at this institution or elsewhere?

- Started here
- Started elsewhere

Since graduating from high school, which of the following types of schools have you attended *other than* the one you are now attending? (Select all that apply.)

- Vocational or technical school
- Community or junior college
- 4-year college or university other than this one
- None
- Other

What is the highest level of education you ever expect to complete?

- Some college but less than a bachelor's degree
- Bachelor's degree (B.A., B.S., etc.)
- Master's degree (M.A., M.S., etc.)
- Doctoral or professional degree (Ph.D., J.D., M.D., etc.)

What is the highest level of education completed by either of your parents (or those who raised you)?

- Did not finish high school
- High school diploma or G.E.D.
- Attended college but did not complete degree
- Associate's degree (A.A., A.S., etc.)
- Bachelor's degree (B.A., B.S., etc.)
- Master's degree (M.A., M.S., etc.)
- Doctoral or professional degree (Ph.D., J.D., M.D., etc.)

What is your gender identity?

- Man
- Woman
- Another gender identity
- I prefer not to respond

Enter your year of birth (e.g., 1994):

Are you an international student?

- ◯ Yes
- ◯ No

What is your racial or ethnic identification? (Select all that apply.)

- ☐ American Indian or Alaska Native
- ☐ Asian
- ☐ Black or African American
- ☐ Hispanic or Latino
- ☐ Native Hawaiian or Other Pacific Islander
- ☐ White
- ☐ Other
- ☐ I prefer not to respond

Are you a member of a social fraternity or sorority?

- ◯ Yes
- ◯ No

Which of the following best describes where you are living while attending college?

- ◯ Dormitory or other campus housing (not fraternity or sorority house)
- ◯ Fraternity or sorority house
- ◯ Residence (house, apartment, etc.) *within walking distance* to the institution
- ◯ Residence (house, apartment, etc.) *farther than walking distance* to the institution
- ◯ None of the above

Are you a student-athlete on a team sponsored by your institution's athletics department?

- ◯ Yes
- ◯ No

Are you a current or former member of the U.S. Armed Forces, Reserves, or National Guard?

- ◯ Yes
- ◯ No

Have you been diagnosed with any disability or impairment?

- ◉ Yes
- ◉ No
- ◉ I prefer not to respond

Which of the following has been diagnosed? (Select all that apply.)

- ☐ A sensory impairment (vision or hearing)
- ☐ A mobility impairment
- ☐ A learning disability (e.g., ADHD, dyslexia)
- ☐ A mental health disorder
- ☐ A disability or impairment not listed above

[Question administered per institution request.]

Which of the following best describes your sexual orientation?

- ◉ Heterosexual
- ◉ Gay
- ◉ Lesbian
- ◉ Bisexual
- ◉ Another sexual orientation
- ◉ Questioning or unsure
- ◉ I prefer not to respond

Continue

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Appendix C

NSSE 2015 Codebook

NSSE 2015 Codebook

U.S. Version

Item #	*Variable name*	*EI* [a]	*Variable label*	*Values and labels*
Question 1.	**During the current school year, about how often have you done the following?**			
1a.	askquest		Asked questions or contributed to course discussions in other ways	1 = Never 2 = Sometimes 3 = Often 4 = Very often
1b.	drafts		Prepared two or more drafts of a paper or assignment before turning it in	
1c.	unprepared		Come to class without completing readings or assignments	
1d.	attendart		Attended an art exhibit, play or other arts performance (dance, music, etc.)	
1e.	CLaskhelp	CL	Asked another student to help you understand course material	
1f.	CLexplain	CL	Explained course material to one or more students	
1g.	CLstudy	CL	Prepared for exams by discussing or working through course material with other students	
1h.	CLproject	CL	Worked with other students on course projects or assignments	
1i.	present		Given a course presentation	
–	unpreparedr		Reverse code of the variable unprepared	1 = Very often 2 = Often 3 = Sometimes 4 = Never
Question 2.	**During the current school year, about how often have you done the following?**			
2a.	RIintegrate	RI	Combined ideas from different courses when completing assignments	1 = Never 2 = Sometimes 3 = Often 4 = Very often
2b.	RIsocietal	RI	Connected your learning to societal problems or issues	
2c.	RIdiverse	RI	Included diverse perspectives (political, religious, racial/ethnic, gender, etc.) in course discussions or assignments	
2d.	RIownview	RI	Examined the strengths and weaknesses of your own views on a topic or issue	
2e.	RIperspect	RI	Tried to better understand someone else's views by imagining how an issue looks from his or her perspective	
2f.	RInewview	RI	Learned something that changed the way you understand an issue or concept	
2g.	RIconnect	RI	Connected ideas from your courses to your prior experiences and knowledge	

a. Engagement Indicator items. Key to abbreviations on page 21.

Item #	*Variable name*	*EI* [a]	*Variable label*	*Values and labels*
Question 3. During the current school year, about how often have you done the following?				
3a.	SFcareer	SF	Talked about career plans with a faculty member	1 = Never 2 = Sometimes 3 = Often 4 = Very often
3b.	SFotherwork	SF	Worked with a faculty member on activities other than coursework (committees, student groups, etc.)	
3c.	SFdiscuss	SF	Discussed course topics, ideas, or concepts with a faculty member outside of class	
3d.	SFperform	SF	Discussed your academic performance with a faculty member	
Question 4. During the current school year, how much has your coursework emphasized the following?				
4a.	memorize		Memorizing course material	1 = Very little 2 = Some 3 = Quite a bit 4 = Very much
4b.	HOapply	HO	Applying facts, theories, or methods to practical problems or new situations	
4c.	HOanalyze	HO	Analyzing an idea, experience, or line of reasoning in depth by examining its parts	
4d.	HOevaluate	HO	Evaluating a point of view, decision, or information source	
4e.	HOform	HO	Forming a new idea or understanding from various pieces of information	
Question 5. During the current school year, to what extent have your instructors done the following?				
5a.	ETgoals	ET	Clearly explained course goals and requirements	1 = Very little 2 = Some 3 = Quite a bit 4 = Very much
5b.	ETorganize	ET	Taught course sessions in an organized way	
5c.	ETexample	ET	Used examples or illustrations to explain difficult points	
5d.	ETdraftfb	ET	Provided feedback on a draft or work in progress	
5e.	ETfeedback	ET	Provided prompt and detailed feedback on tests or completed assignments	
Question 6. During the current school year, about how often have you done the following?				
6a.	QRconclude	QR	Reached conclusions based on your own analysis of numerical information (numbers, graphs, statistics, etc.)	1 = Never 2 = Sometimes 3 = Often 4 = Very often
6b.	QRproblem	QR	Used numerical information to examine a real-world problem or issue (unemployment, climate change, public health, etc.)	
6c.	QRevaluate	QR	Evaluated what others have concluded from numerical information	

a. Engagement Indicator items. Key to abbreviations on page 21.

Item #	*Variable name*	*EI*[a]	*Variable label*	*Values and labels*
Question 7.	**During the current school year, about how many papers, reports, or other writing tasks of the following length have you been assigned? (Include those not yet completed.)**			
7a.	wrshort		Up to 5 pages	1 = None 2 = 1-2 3 = 3-5 4 = 6-10 5 = 11-15 6 = 16-20 7 = More than 20 papers
7b.	wrmed		Between 6 and 10 pages	
7c.	wrlong		11 pages or more	
–	wrshortnum		Estimated number of assigned papers, reports, etc., up to 5 pages (NSSE recode)	0.0 = None 1.5 = 1-2 4.0 = 3-5 8.0 = 6-10 13.0 = 11-15 18.0 = 16-20 23.0 = More than 20 papers
–	wrmednum		Estimated number of assigned papers, reports, etc., between 6 and 10 pages (NSSE recode)	
–	wrlongnum		Estimated number of assigned papers, reports, etc., 11 pages or more (NSSE recode)	
–	wrpages		Estimated pages of assigned writing, recoded and summed by NSSE from *wrshort, wrmed* , and *wrlong* using the midpoints of response ranges and an estimate for unbounded options	
Question 8.	**During the current school year, about how often have you had discussions with people from the following groups?**			
8a.	DDrace	DD	People of a race or ethnicity other than your own	1 = Never 2 = Sometimes 3 = Often 4 = Very often
8b.	DDeconomic	DD	People from an economic background other than your own	
8c.	DDreligion	DD	People with religious beliefs other than your own	
8d.	DDpolitical	DD	People with political views other than your own	
Question 9.	**During the current school year, about how often have you done the following?**			
9a.	LSreading	LS	Identified key information from reading assignments	1 = Never 2 = Sometimes 3 = Often 4 = Very often
9b.	LSnotes	LS	Reviewed your notes after class	
9c.	LSsummary	LS	Summarized what you learned in class or from course materials	
Question 10.	challenge		During the current school year, to what extent have your courses challenged you to do your best work?	1 = Not at all to 7 = Very Much

a. Engagement Indicator items. Key to abbreviations on page 21.

Item #	*Variable name*	*EI*[a]	*Variable label*	*Values and labels*
Question 11.	**Which of the following have you done or do you plan to do before you graduate?**			
11a.	intern		Participate in an internship, co-op, field experience, student teaching, or clinical placement	1 = Have not decided 2 = Do not plan to do 3 = Plan to do 4 = Done or in progress
11b.	leader		Hold a formal leadership role in a student organization or group	
11c.	learncom		Participate in a learning community or some other formal program where groups of students take two or more classes together	
11d.	abroad		Participate in a study abroad program	
11e.	research		Work with a faculty member on a research project	
11f.	capstone		Complete a culminating senior experience (capstone course, senior project or thesis, comprehensive exam, portfolio, etc.)	
Question 12.	servcourse		About how many of your courses at this institution have included a community-based project (service-learning)?	1 = None 2 = Some 3 = Most 4 = All
–	HIPsumFY		Number of high-impact practices for first-year students marked 'Done or in progress' (learncom, research) or 'All, Most, or Some' (servcourse).	0 = None 1 = One 2 = Two 3 = Three
–	HIPsumSR		Number of high-impact practices for seniors marked 'Done or in progress' (learncom, research, intern, abroad, and capstone) or 'All, Most, or Some' (servcourse).	0 = None 1 = One 2 = Two 3 = Three 4 = Four 5 = Five 6 = Six

a. Engagement Indicator items. Key to abbreviations on page 21.

Item #	*Variable name*	*EI* [a]	*Variable label*	*Values and labels*
Question 13. Indicate the quality of your interactions with the following people at your institution.				
13a.	QIstudent	QI	Students	1 = Poor 2 = 2 3 = 3 4 = 4 5 = 5 6 = 6 7 = Excellent 9 = Not applicable (coded as missing)
13b.	QIadvisor	QI	Academic advisors	
13c.	QIfaculty	QI	Faculty	
13d.	QIstaff	QI	Student services staff (career services, student activities, housing, etc.)	
13e.	QIadmin	QI	Other administrative staff and offices (registrar, financial aid, etc.)	
Note: To accommodate SAS users, recodes of question 13 are included in the data file. Variables are recoded to include "Not applicable" as a valid response.				
–	QIstudentR		Students	1 = Poor 2 = 2 3 = 3 4 = 4 5 = 5 6 = 6 7 = Excellent 9 = Not applicable
–	QIadvisorR		Academic advisors	
–	QIfacultyR		Faculty	
–	QIstaffR		Student services staff (career services, student activities, housing, etc.)	
–	QIadminR		Other administrative staff and offices (registrar, financial aid, etc.)	
Question 14. How much does your institution emphasize the following?				
14a.	empstudy		Spending significant amounts of time studying and on academic work	1 = Very little 2 = Some 3 = Quite a bit 4 = Very much
14b.	SEacademic	SE	Providing support to help students succeed academically	
14c.	SElearnsup	SE	Using learning support services (tutoring services, writing center, etc.)	
14d.	SEdiverse	SE	Encouraging contact among students from different backgrounds (social, racial/ethnic, religious, etc.)	
14e.	SEsocial	SE	Providing opportunities to be involved socially	
14f.	SEwellness	SE	Providing support for your overall well-being (recreation, health care, counseling, etc.)	
14g.	SEnonacad	SE	Helping you manage your non-academic responsibilities (work, family, etc.)	
14h.	SEactivities	SE	Attending campus activities and events (performing arts, athletic events, etc.)	
14i.	SEevents	SE	Attending events that address important social, economic, or political issues	

a. Engagement Indicator items. Key to abbreviations on page 21.

Item #	*Variable name*	*EI*[a]	*Variable label*	*Values and labels*
Question 15. About how many hours do you spend in a typical 7-day week doing the following?				
15a.	tmprep		Preparing for class (studying, reading, writing, doing homework or lab work, analyzing data, rehearsing, and other academic activities)	1 = 0 Hours per week 2 = 1-5 3 = 6-10 4 = 11-15 5 = 16-20 6 = 21-25 7 = 26-30 8 = More than 30
15b.	tmcocurr		Participating in co-curricular activities (organizations, campus publications, student government, fraternity or sorority, intercollegiate or intramural sports, etc.)	
15c.	tmworkon		Working for pay **on campus**	
15d.	tmworkoff		Working for pay **off campus**	
15e.	tmservice		Doing community service or volunteer work	
15f.	tmrelax		Relaxing and socializing (time with friends, video games, TV or videos, keeping up with friends online, etc.)	
15g.	tmcare		Providing care for dependents (children, parents, etc.)	
15h.	tmcommute		Commuting to campus (driving, walking, etc.)	
–	tmprephrs		Estimated hours: *tmprep* recoded by NSSE using the midpoints of response ranges and an estimate for unbounded options.	0 = 0 hrs 3 = 1-5 hrs 8 = 6-10 hrs 13 = 11-15 hrs 18 = 16-20 hrs 23 = 21-25 hrs 28 = 26-30 hrs 33 = More than 30 hrs
–	tmcocurrhrs		Estimated hours: *tmcocurr* recoded by NSSE using the midpoints of response ranges and an estimate for unbounded options.	
–	tmworkonhrs		Estimated hrs: *tmworkon* recoded by NSSE using the midpoints of response ranges and an estimate for unbounded options.	
–	tmworkoffhrs		Estimated hours: *tmworkoff* recoded by NSSE using the midpoints of response ranges and an estimate for unbounded options.	
–	tmservicehrs		Estimated hours: *tmservice* recoded by NSSE using the midpoints of response ranges and an estimatefor unbounded options.	
–	tmrelaxhrs		Estimated hours: *tmrelax* recoded by NSSE using the midpoints of response ranges and an estimate for unbounded options.	
–	tmcarehrs		Estimated hours: *tmcare* recoded by NSSE using the midpoints of response ranges and an estimate for unbounded options.	
–	tmcommutehrs		Estimated hours: *tmcommute* recoded by NSSE using the midpoints of response ranges and an estimate for unbounded options.	
–	tmworkhrs		Estimated number of hrs working for pay recoded and summed by NSSE from *tmworkonhrs* and *tmworkoffhrs* using the response range midpoints and an estimate for unbounded options.	

a. Engagement Indicator items. Key to abbreviations on page 21.

Item #	*Variable name*	*EI* [a]	*Variable label*	*Values and labels*
Question 16.	reading		Of the time you spend preparing for class in a typical 7-day week, about how much is on *assigned reading* ?	1 = Very little 2 = Some 3 = About half 4 = Most 5 = Almost all
–	tmreadinghrs		Estimated number of hours reading calculated by NSSE, multiplying *tmprephrs* by a proportion of *reading* (Very little=.10; Some=.25; About half=.50; Most=.75; Almost all=.90).	
–	tmreadinghrscol		NSSE recode of *tmreadinghrs*	1 = 0 hrs 2 = More than zero, up to 5 hrs 3 = More than 5, up to 10 hrs 4 = More than 10, up to 15 hrs 5 = More than 15, up to 20 hrs 6 = More than 20, up to 25 hrs 7 = More than 25 hrs
Question 17.	**How much has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?**			
17a.	pgwrite		Writing clearly and effectively	1 = Very little 2 = Some 3 = Quite a bit 4 = Very much
17b.	pgspeak		Speaking clearly and effectively	
17c.	pgthink		Thinking critically and analytically	
17d.	pganalyze		Analyzing numerical and statistical information	
17e.	pgwork		Acquiring job- or work-related knowledge and skills	
17f.	pgothers		Working effectively with others	
17g.	pgvalues		Developing or clarifying a personal code of values and ethics	
17h.	pgdiverse		Understanding people of other backgrounds (economic, racial/ethnic, political, religious, nationality, etc.)	
17i.	pgprobsolve		Solving complex real-world problems	
17j.	pgcitizen		Being an informed and active citizen	

a. Engagement Indicator items. Key to abbreviations on page 21.

Item #	*Variable name*	*EI* [a]	*Variable label*	*Values and labels*
Question 18.	evalexp		How would you evaluate your entire educational experience at this institution?	1 = Poor 2 = Fair 3 = Good 4 = Excellent
Question 19.	sameinst		If you could start over again, would you go to the *same institution* you are now attending?	1 = Definitely no 2 = Probably no 3 = Probably yes 4 = Definitely yes
Question 20.				
20a.	MAJnum		How many majors do you plan to complete? (Do not count minors.)	1 = One major 2 = More than one major
20b.	MAJfirst		Please enter your major or expected major: *[Note: item was only given if respondent selected "One major" on item 20a.]*	Write-in response
	MAJsecond		Please enter up to two majors or expected majors (do not enter minors): *[Note: item was only given if respondent selected "More than one major" on item 20a.]*	Write-in response -9 = Survey did not include this question
20c.	MAJfirstcode		First or expected major (NSSE's code for MAJfirst) *[Note: item was only given if the student's write-in response on item 20b (MAJfirst) was unrecognizable by NSSE's lookup table or if 20b was skipped]*	See page 10 for full list of major categories
	MAJsecondcode		Second major (NSSE's code for MAJsecond) *[Note: item was only given if the student's write-in response on item 20b (MAJsecond) was unrecognizable by NSSE's lookup table or if item 20b was skipped]*	

a. Engagement Indicator items. Key to abbreviations on page 21.

Item #	*Variable name*	*EI* [a]	*Variable label*	*Values and labels*

20c. Full list of NSSE's major categories for *MAJfirstcode* and *MAJsecondcode*

Arts & Humanities
1 = Arts, fine and applied
2 = Architecture
3 = Art history
4 = English (language and literature)
5 = French (language and literature)
6 = Spanish (language and literature)
7 = Other language and literature
8 = History
9 = Humanities (general)
10 = Music
11 = Philosophy
12 = Religion
13 = Theater or drama
14 = Other fine and performing arts
15 = Other humanities

Biological Science, Agriculture, & Natural Resources
16 = Biology (general)
17 = Agriculture
18 = Biochemistry or biophysics
19 = Biomedical science
20 = Botany
21 = Cell and molecular biology
22 = Environmental science/studies
23 = Marine science
24 = Microbiology or bacteriology
25 = Natural resources and conservation
26 = Natural science
27 = Neuroscience
28 = Physiology and developmental biology
29 = Zoology
30 = Other agr. and natural resources
31 = Other biological sciences

Physical Science, Mathematics, & Computer Science
32 = Physical sciences (general)
33 = Astronomy
34 = Atmospheric sciences (meteorology)
35 = Chemistry
36 = Computer science
37 = Earth science (including geology)
38 = Mathematics
39 = Physics
40 = Statistics
41 = Other physical sciences

Social Sciences
42 = Social sciences (general)
43 = Anthropology
44 = Economics
45 = Ethnic studies
46 = Gender studies
47 = Geography
48 = International relations
49 = Political science
50 = Psychology
51 = Sociology
52 = Other social sciences

Business
53 = Accounting
54 = Business administration
55 = Entrepreneurial studies
56 = Finance
57 = Hospitality and tourism
58 = International business
59 = Management
60 = Management information systems
61 = Marketing
62 = Organizational leadership or behavior
63 = Supply chain and operations
64 = Other business

Communications, Media, & Public Relations
65 = Communications (general)
66 = Broadcast communications
67 = Journalism
68 = Mass communications and media studies
69 = Public relations and advertising
70 = Speech
71 = Telecommunications
72 = Other communications

Education
73 = Education (general)
74 = Business education
75 = Early childhood education
76 = Elementary, middle school education
77 = Mathematics education
78 = Music or art education
79 = Physical education
80 = Secondary education
81 = Social studies education
82 = Special education
83 = Other education

Engineering
84 = Engineering (general)
85 = Aero-, astronautical engineering
86 = Bioengineering
87 = Biomedical engineering
88 = Chemical engineering
89 = Civil engineering
90 = Computer engineering and technology
91 = Electrical or electronic engineering
92 = Industrial engineering
93 = Materials engineering
94 = Mechanical engineering
95 = Petroleum engineering
96 = Software engineering
97 = Other engineering

Health Professions
98 = Allied health
99 = Dentistry
100 = Health science
101 = Health technology (medical, dental, laboratory)
102 = Healthcare administration and policy
103 = Kinesiology
104 = Medicine
105 = Nursing
106 = Nutrition and dietetics
107 = Occupational safety and health
108 = Occupational therapy
109 = Pharmacy
110 = Physical therapy
111 = Rehabilitation sciences
112 = Speech therapy
113 = Veterinary science
114 = Other health professions

Social Service Professions
115 = Criminal justice
116 = Criminology
117 = Forensics
118 = Justice administration
119 = Law
120 = Military science
121 = Public administration, policy
122 = Public safety and emergency management
123 = Social work
124 = Urban planning

Other majors (not categorized)
125 = Computer information systems
126 = Family and consumer studies
127 = General studies
128 = Information systems
129 = Information technology
130 = Liberal arts and sciences
131 = Multi, Interdisciplinary studies
132 = Network security and systems
133 = Other computer science and technology
134 = Parks, recreation, leisure studies, sports management
135 = Professional studies (general)
136 = Technical, vocational studies
137 = Theological studies, ministry
138 = Other, not listed
999 = Undecided, undeclared
998 = Unrecognized write-in
-9 = Student did not receive this question (coded as missing; applicable for MAJsecondcode only)

a. Engagement Indicator items. Key to abbreviations on page 21.

Item #	*Variable name*	*EI*[a]	*Variable label*	*Values and labels*
–	MAJFself		NSSE-created flag for students who self-selected their major or first major from the full list (see pg. 10)	0 = Did not self-select 1 = Self-selected
–	MAJSself		NSSE-created flag for students who self-selected their second major from the full list (see pg. 10)	0 = Did not self-select 1 = Self-selected -9 = Student did not receive this question (coded as missing)
–	MAJfirstcol		Recoded write-in major variable MAJfirst into one of eleven related-major categories	1 = Arts and Humanities 2 = Biological Sciences, Agriculture, and Natural Resources 3 = Physical Sciences, Mathematics, and Computer Science 4 = Social Sciences 5 = Business 6 = Communications, Media, and Public Relations 7 = Education 8 = Engineering 9 = Health Professions 10 = Social Service Professions 11 = All other 999 = Undecided, undeclared -9 = Student did not receive this question (coded as missing; applicable for MAJsecondcol only)
–	MAJsecondcol		Recoded write-in major variable MAJsecond into one of eleven related-major categories	
Question 21.	class		What is your class level?	1 = Freshman/first-year 2 = Sophomore 3 = Junior 4 = Senior 5 = Unclassified
Question 22.	fulltime		Thinking about this current academic term, are you a full-time student?	0 = No 1 = Yes

a. Engagement Indicator items. Key to abbreviations on page 21.

Item #	*Variable name*	*EI* [a]	*Variable label*	*Values and labels*
Question 23.				
23a.	coursenum		How many courses are you taking for credit this current academic term?	0 = 0 1 = 1 2 = 2 3 = 3 4 = 4 5 = 5 6 = 6 7 = 7 or more
23b.	onlinenum		Of these, how many are *entirely online*?	0 = 0 1 = 1 2 = 2 3 = 3 4 = 4 5 = 5 6 = 6 7 = 7 or more
–	onlinecrscol		Collapsed recode of how many courses are taken entirely online	1 = No courses taken online 2 = Some courses taken online 3 = All courses taken online
Question 24.	grades		What have most of your grades been up to now at this institution?	1 = C- or lower 2 = C 3 = C+ 4 = B- 5 = B 6 = B+ 7 = A- 8 = A
Question 25.	begincol		Did you begin college at this institution or elsewhere?	0 = Started here 1 = Started elsewhere

a. Engagement Indicator items. Key to abbreviations on page 21.

Item #	*Variable name*	*EI*[a]	*Variable label*	*Values and labels*
Question 26. Since graduating from high school, which of the following types of schools have you attended *other than* the one you are now attending? (Select all that apply.)				
26a.	attend_voc		Vocational or technical school	0 = Not selected 1 = Selected
26b.	attend_com		Community or junior college	
26c.	attend_col		4-year college or university other than this one	
26d.	attend_none		None	
26e.	attend_other		Other	
Question 27.	edaspire		What is the highest level of education you ever expect to complete?	1 = Some college but less than a bachelor's degree 2 = Bachelor's degree (B.A., B.S., etc.) 3 = Master's degree (M.A., M.S., etc.) 4 = Doctoral or professional degree (Ph.D., J.D., M.D., etc.)
Question 28.	parented		What is the highest level of education completed by either of your parents (or those who raised you)?	1 = Did not finish high school 2 = High school diploma/G.E.D. 3 = Attended college but did not complete degree 4 = Associate's degree (A.A., A.S., etc.) 5 = Bachelor's degree (B.A., B.S., etc.) 6 = Master's degree (M.A., M.S., etc.) 7 = Doctoral or professional degree (Ph.D., J.D., M.D., etc.)
–	firstgen		First-generation status (level of parental/guardian education is less than a bachelor's degree)	0 = No 1 = Yes
Question 29.	genderid		What is your gender identity?	1 = Man 2 = Woman 3 = Another gender identity 9 = Prefer not to respond
–	genderid_txt		Another gender identity, please specify:	Write-in response

a. Engagement Indicator items. Key to abbreviations on page 21.

Item #	*Variable name*	*EI* [a]	*Variable label*	*Values and labels*
Question 30.	birthyear		Enter your year of birth (e.g., 1994): 19[ ]	Write-in response
–	age		Age (Recoded from variable birthyear)	
–	agecat		Age category	1 = 19 or younger 2 = 20-23 3 = 24-29 4 = 30-39 5 = 40-55 6 = Over 55
Question 31.				
31a.	internat		Are you an international student?	0 = No 1 = Yes
31b.	country		What is your country of citizenship? *[Note: item was only given if repondent selected 'Yes' to item 31a]*	To see full list of countries by region, visit: nsse.indiana.edu/html/data_codebooks.cfm
–	countrycol		NSSE recode of country into eight categories	1 = Africa Sub-Saharan 2 = Asia 3 = Canada 4 = Europe 5 = Latin America and Caribbean 6 = Middle East and North Africa 7 = Oceania 8 = Unknown region/uncoded -9 = Student did not receive this question

a. Engagement Indicator items. Key to abbreviations on page 21.

Item #	*Variable name*	*EI*[a]	*Variable label*	*Values and labels*
Question 32. What is your racial or ethnic identification? (Select all that apply.)				
32a.	re_amind		American Indian or Alaska Native	0 = Not selected 1 = Selected
32b.	re_asian		Asian	
32c.	re_black		Black or African American	
32d.	re_latino		Hispanic or Latino	
32e.	re_pacific		Native Hawaiian or Other Pacific Islander	
32f.	re_white		White	
32g.	re_other		Other	
32f.	re_pnr		I prefer not to respond	
–	re_all		Racial/ethnic background based on re_amind through re_pnr where each student is represented only once. One through seven represent students who selected only one racial/ethnic identification; eight represents students who selected more than one racial/ethnic identification.	1 = American Indian or Alaska Native 2 = Asian 3 = Black or African American 4 = Hispanic or Latino 5 = Native Hawaiian or Other Pacific Islander 6 = White 7 = Other 8 = Multiracial 9 = I prefer not to respond

a. Engagement Indicator items. Key to abbreviations on page 21.

Item #	*Variable name*	*EI*[a]	*Variable label*	*Values and labels*
Question 33.	greek		Are you a member of a social fraternity or sorority?	0 = No 1 = Yes
Question 34.	living		Which of the following best describes where you are living while attending college?	1 = Dormitory or other campus housing (not fraternity/sorority house) 2 = Fraternity or sorority house 3 = Residence (house, apartment, etc.) *within* walking distance of the institution 4 = Residence (house, apartment, etc.) *farther than* walking distance to the institution 5 = None of the above
Question 35.	athlete		Are you a student-athlete on a team sponsored by your institution's athletics department?	0 = No 1= Yes
Question 36.	veteran		Are you a current or former member of the U.S. Armed Forces, Reserves, or National Guard?	0 = No 1 = Yes
Question 37.				
37a.	disability		Have you been diagnosed with any disability or impairment?	0 = No 1 = Yes 9 = I prefer not to respond
37b.	**Which of the following have been diagnosed? (Select all that apply)** *[Note: item was only given if respondent either selected "Yes" on item 37a.]*			
	dis_sense		A sensory impairment (vision or hearing)	0 = Not selected 1 = Selected -9 = Student did not receive this question (coded as missing)
	dis_mobility		A mobility impairment	
	dis_learning		A learning disability (e.g., ADHD, dyslexia)	
	dis_mental		A mental health disorder	
	dis_other		A disability or impairment not listed above	

a. Engagement Indicator items. Key to abbreviations on page 21.

Item #	*Variable name*	*EI*[a]	*Variable label*	*Values and labels*
–	disability_all		Students' disability identification based on disability and dis_sense through dis_other where each student is represented only once. 1 through 5 represent students who selected only one disability or impairment; 6 represents students who selected more than one disability or impairment.	1 = A sensory impairment 2 = A mobility impairment 3 = A learning disability 4 = A mental health disorder 5 = A disability or impairment not listed above 6 = More than one disability or impairment 7 = No disability or impairment 8 = Prefer not to respond
Question 38.	sexorient14		Which of the following best describes your sexual orientation? *[Note: optional item administered per institution request.]*	1 = Heterosexual 2 = Gay 3 = Lesbian 4 = Bisexual 5 = Another sexual orientation 6 = Questioning or unsure 9 = I prefer not to respond -9 = Survey did not include this question (coded as missing)
–	sexorient14_txt		Another sexual orientation, please specify:	Write-in response -9 = Survey did not include this question

a. Engagement Indicator items. Key to abbreviations on page 21.

Item #	*Variable name*	*EI* [a]	*Variable label*	*Values and labels*
Data Provided by Your Institution				
–	IRsex		Institution-reported: Sex	0 = Female 1 = Male
–	IRrace		Institution-reported: Race or ethnicity	1 = American Indian or Alaska Native 2 = Asian 3 = Black or African American 4 = Hispanic or Latino 5 = Native Hawaiian or Other Pacific Islander 6 = White 7 = Other 8 = Foreign or Nonresident alien 9 = Two or more races/ethnicities 10 = Unknown
–	IRclass		Institution-reported: Class level	1 = Freshman (1st year) 2 = Sophomore (2nd year) 3 = Junior (3rd year) 4 = Senior (4th year) 5 = Other
–	IRftfy		Institution-reported first-time first-year student	0 = No 1 = Yes
–	IRenrollment		Institution-reported: Enrollment status	0 = Not full-time 1 = Full-time
–	studentID		Institution-reported: Student ID	
–	actcomp		Institution-reported: Composite ACT score	
–	satm		Institution-reported: SAT math score	
–	satv		Institution-reported: SAT verbal or critical reading score	
–	satw		Institution-reported: SAT writing score (if newer form of SAT taken)	
–	group1		First school-provided group identifier	
–	group2		Second school-provided group identifier	
–	group3		Third school-provided group identifier	
–	group4		Fourth school-provided group identifier	
–	group5		Fifth school-provided group identifier	

a. Engagement Indicator items. Key to abbreviations on page 21.

Item #	Variable name	EI [a]	Variable label	Values and labels
Data Related to Survey Administration				
–	sample		Sample type	1 = Census 2 = Random sample 3 = Requested random oversample (FY/SR only) 4 = Targeted oversample 5 = Locally administered sample or oversample 6 = Experimental oversample
–	eligible		Identifies respondents that met NSSE criteria at time of survey completion	0 = No 1 = Yes
–	modecomp		Mode of completion on The College Student Report	1 = Paper survey 2 = Web survey
–	surveyid		Unique survey number assigned by NSSE	
–	bsurvid		BCSSE survey id	
–	unitid		Institution unit ID (IPEDS or ESIS)	
–	logdate		Date survey returned (paper) or logged in (web)	
–	os_firstLogin		Operating system with which respondent began survey	
–	os_lastLogin		Operating system with which respondent finished survey	
–	browser_firstLogin		Browser with which respondent began survey	
–	browser_lastLogin		Browser with which respondent finished survey	
–	duration		Summation of every page submit in minutes	
Weights				
NSSE creates weights for randomly selected first-year and senior respondents based on part-time/full-time status and sex. Use weights to replicate the frequency column percentages. However, we encourage schools interested in intra-institutional weighting to consider a more sophisticated weighting system that takes into account response rate differences among additional student subpopulations. NSSE's weights are not appropriate for intra-institutional comparisons in most cases as the response rate differences among subgroups may not be the same as the ones that exist institution-wide at your school. Both weights listed below will reproduce your institution's report statistics, but the N's will differ. See NSSE's website for a full discussion about this topic at http://nsse.indiana.edu/html/weighting.cfm.				
–	WEIGHT1		Institution-reported sex and enrollment status for first-year and senior students within an institution. Replicates the original number of respondents for each institution and is used to produce frequency statistics for each institution.	
–	WEIGHT2		Institution-reported sex and enrollment status weight up to population for first-year and senior students within an institution. Multiplies the number of respondents to match the institution's overall population size.	

a. Engagement Indicator items. Key to abbreviations on page 21.

Engagement Indicators

Engagement Indicators are sets of items that have been grouped into ten key dimensions of student engagement, which fit into four themes adapted from the former Benchmarks of Effective Educational Practice. EI scores are calculated for each student and range from 0 to 60. The EI score for an institution is the weighted mean of these student-level scores. For more detailed information about how Engagement Indicators are calculated, visit the NSSE Web site.

nsse.indiana.edu/html/engagementIndicators.cfm

Variable name	*Description*	*Items*
HO	**Higher-Order Learning:** Amount coursework emphasized challenging learning tasks including applying learned information to practical problems, analyzing ideas and experiences, evaluating information from other sources, and forming new ideas from various pieces of information.	**Items 4b-e:** HOapply, HOanalyze, HOevaluate, HOform
RI	**Reflective & Integrative Learning:** How often students made connections with prior knowledge, other courses, and societal issues, took into account diverse perspectives, and reflected on their own views while examining the views of others.	**Items 2a-g:** RIintegrate, RIsocietal, RIdiverse, RIownview, RIperspect, RInewview, RIconnect
LS	**Learning Strategies:** How often students enacted basic strategies for academic success, such as identifying key information in readings, reviewing notes after class, and summarizing course material.	**Items 9a-c:** LSreading, LSnotes, LSsummary
QR	**Quantitative Reasoning:** How often students engaged with numerical and statistical information across the curriculum, and used this information to reach conclusions, examine real-world problems, and evaluate what others have concluded.	**Items 6a-c:** QRconclude, QRproblem, QRevaluate
CL	**Collaborative Learning:** How often students collaborated with others in mastering difficult material by asking for help, explaining material to others, preparing for exams, and working on group projects.	**Items 1e-h:** CLaskhelp, CLexplain, CLstudy, CLproject
DD	**Discussions with Diverse Others:** How often students had discussions with people who differ from themselves in terms of race or ethnicity, economic background, religious belief, or political views.	**Items 8a-d:** DDrace, DDeconomic, DDreligion, DDpolitical
SF	**Student-Faculty Interaction:** How often students had meaningful, substantive interactions with faculty members and advisors, such as talking about career plans, working on committees or student groups, discussing course material outside of class, or discussing their academic performance.	**Items 3a-d:** SFcareer, SFotherwork, SFdiscuss, SFperform
ET	**Effective Teaching Practices:** Amount instructors emphasized student comprehension and learning with clear explanations and organization, use of illustrative examples, and providing formative and effective feedback.	**Items 5a-e:** ETgoals, ETorganize, ETexample, ETdraftfb, ETfeedback
QI	**Quality of Interactions:** How students rated their interactions with important people in their learning environment, including other students, advisors, faculty, student services, and other administrative staff members.	**Items 13a-e:** QIstudent, QIadvisor, QIfaculty, QIstaff, QIadmin
SE	**Supportive Environment:** Amount the institution emphasized help for students to persist and learn through academic support programs, encouraged diverse interactions, and provided social opportunities, campus activities, health and wellness, and support for non-academic responsibilities.	**Items 14b-i:** SEacademic, SElearnsup, SEdiverse, SEsocial, SEwellness, SEnonacad, SEactivities, SEevents