Asian American Student Engagement on College Campuses

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Abstract

Based on the detrimental effects of stereotypes such as the model minority myth, the purpose of this study was to examine the engagement rates of first-generation and non-first-generation Asian American students at various types of institutions compared to their peers and to explore whether the engagement rate differs depending upon institution type. The presumption of the model minority myth dismisses the fact that Asian Americans are not only extremely heterogenous in terms of race and ethnicity, but also that there is significant variation when it comes to academic achievement (Lee & Kumashiro, 2005). While much research has been conducted to explore how racism impacts higher education attainment of Black/African American and Hispanic/Latinx students (Flores & Park, 2013; Naylor et al., 2015; Owens & Lynch, 2012; Wodtke, 2012), there has been limited research on noninternational, Asian American students on college campuses. The lack of research on Asian American college students contributes to the perpetual misconceptions of Asian Americans. This study identified areas where these students need support and served to validate those needs. Using descriptive and inferential statistics, this study analyzed data from the Spring 2015 administration of the National Survey of Student Engagement (NSSE). Findings suggest Asian American students who participated in this study are not as engaged as their peers, there is a difference in the rates of engagement between first-generation Asian American students and non-first-generation Asian American students, and that Asian American students who attend baccalaureate colleges report higher engagement levels than other types of institutions.

Keywords: Asian American, diversity, first-generation, model minority myth, NSSE, persistence, retention, student engagement

ASIAN AMERICAN STUDENT ENGAGEMENT ON COLLEGE CAMPUSES

Institutions of higher education in the United States have not been as effective in promoting academic success for students of color as they have for White students. In 2013, 63% of White students attending college for the first time and pursuing their bachelor's degree full-time graduated from the same institution within 6 years, compared to 41% of Black students, 53% of Hispanic students, and 71% of Asian students (National Center for Education Statistics [NCES], 2016). It is important to note data were for students who started and ended at the same institution; it did not account for students who started at one institution and then graduated from another, which highlight the topics of retention and persistence.

Retention focuses on the institution and is a measure of how well an institution is meeting the needs of and supporting its students (Kuh et al., 2006). These efforts can include providing remedial courses to support students academically to the amount of financial assistance available for students in need (Kuh et al., 2006). Persistence, on the other hand, focuses on the student (Renn & Reason, 2013), the activities in which they engage, and the friendships they develop during their time at school (Kuh et al., 2006). The key distinction is colleges and universities measure retention by whether students graduate from the institutions where they began; whereas students may measure their persistence based on whether they reached the goals they set out for themselves. Where students' goals do not include graduating from the institution is where retention and persistence deviate from each other. However, one strategy to increase retention is student engagement (Hu, 2010), which is integral to students' persistence (Tinto, 2000); those who are engaged in these activities are more likely to persist and graduate from college (Harper, 2009; Quaye & Harper, 2015).

There are two components to student engagement: (a) the time and effort students put into educational activities, and (b) the resources and efforts colleges and universities invest to create educational opportunities for students (Kuh, 2001; Kuh et al., 2007). These educational activities are intentional interactions institutions create for the benefit of the student and can

come in the form of high-impact practices (Kuh et al., 2006). Such high-impact practices allow students to engage in their studies and develop personally, and these practices motivate students to continue their time at the institution (Kuh, 2016). Students who engage in high-impact practices on their college campuses benefit greatly (Kuh, 2009; Pascarella & Terenzini, 2005), particularly students of color, first-generation students, and students who are academically underprepared (Kuh, 2009). In fact, Kuh et al. (2008) concluded engagement positively affects academic performance and persistence, and "the effects are even greater for lower ability students and students of color compared with White students" (p. 555). Such findings are critical as the demographic landscape of higher education has shifted, and schools have become increasingly diverse with a burgeoning population of students of color and more students in need of greater support (Harper & Quaye, 2009).

Furthermore, many Asian American students arrive on college campuses without the needed preparation, skills, or resources to succeed in college because the unique challenges they face in society are overlooked (Museus, 2008; Yeh, 2005). Quaye et al. (2009) posited the reason for this disparity is partly due to obstacles racial and ethnic minority students face, including: (a) racial identity development, (b) being one of few racial/ethnic minority students, (c) lack of same-race/ethnicity faculty, (d) curricular content, and (e) lack of culturally responsive pedagogy. These obstacles impact their learning, particularly where stereotypes around race and ethnicity intersect with perceived academic ability (Museus, 2008). When the Asian American population is small on college campuses compared to the rest of the student population, Asian Americans may feel undue attention and may feel they represent the entire Asian race when they speak. This tremendous pressure can create a situation that may cause Asian American students to shut down (Wei et al., 2011) and not participate in class. In addition, the prevailing belief all Asians do well in school can cause fear and insecurities for those who struggle academically or who are unable to grasp a concept in class. The internal battle between the ability of the individual student and expectations of others hinders a student's

willingness to seek help from others and causes them to struggle silently (Museus, 2008). In other words, the model minority stereotype has a detrimental effect on the desires of Asian American students to engage on campus (Museus, 2008), particularly in co-curricular activities (Museus & Park, 2015). It may not be surprising that Asian Americans were found to be the least engaged student population on college campuses in at least one study (Hu & McCormick, 2012). This lack of engagement is problematic, particularly as it relates to retention and persistence. The more students are engaged on their campus, the more they will persist in their goals, which translates to institutions retaining their students. For a population that is forecasted to grow in the coming decades, coupled with competing with other institutions to enroll enough students to stay operational, how institutions provide opportunities to its Asian students is critical. Certainly, the cost to recruit students is greater than the cost to retain students (Ruffalo Noel Levitz, 2016).

For Asian American students, the model minority myth presumes Asian Americans not only have a strong work ethic, but also that they are innately intelligent and motivated and therefore not in need of student support services (Maramba & Palmer, 2014; Wells & Horn, 2015). This presumption attempts to dismiss systemic racism and instead focuses on individual shortcomings as the reason why people of color are unable to match their White counterparts in terms of academic achievement (Museus, 2008; Museus & Park, 2015; Wong et al., 1998). This myth also advances the notion Asian Americans do not experience racism and therefore appear to be as successful as White Americans, all the while dismissing the effort Asian American students apply to their academics (Museus & Park, 2015). However, Asian Americans are regularly subjected to subtle racism,

> including members of society rejecting their interethnic differences (“all Asians look alike”), ascribing them intelligence (“you people always do well in school”), and denying their racial realities (“Asians are the new Whites and do not face discrimination”). (Museus & Park, 2015, p. 552)

Besides contending with stereotypical myths, students who are also first-generation students have an additional layer of obstacles to overcome; in the context of higher education, "first-generation status" refers to the educational attainment (or lack thereof) of the students' parents. Specifically, the status refers to students whose parents either have less than a bachelor's degree or less than a high school diploma (NSSE, 2018). First-generation students are less likely to persist and graduate and less engaged overall (Pike & Kuh, 2005). For first-generation Asian American students, there may be additional distinct challenges (e.g., a language barrier, their cultural upbringing) because the growth of the Asian population in the United States has two main sources—immigration and refugee resettlement (Iwamoto & Liu, 2010; Lee & Kumashiro, 2005). In both cases, English is not the primary spoken language (Lee & Kumashiro, 2005; Redondo, 2008). Therefore, language barriers are a unique challenge for Asian American students, and even more so for first-generation Asian American students because mastering the English language is added to learning the "language" of higher education (Pak et al., 2014; Yeh, 2005).

On the institutional level, this study highlights the need for colleges and universities to commit resources to support Asian Americans, along with other students of color. Asian Americans experience subtle racism on a regular basis (Museus & Park, 2015). From being viewed as a perpetual foreigner and never being established as a "true American" (Iwamoto & Liu, 2010; Museus & Park, 2015) to being regarded as high achieving, academically successful, and naturally intelligent and motivated (Maramba & Palmer, 2014), much of what Asian Americans on college campuses experience is overlooked, and their needs are not addressed. The model minority myth places Asian Americans in an unrealistic utopic state in which it is believed Asian American students are self-sufficient and able to succeed in college with minimal support. Unfortunately, such a stereotype masks the undue pressure and feelings of inferiority (Museus & Park, 2015) when the student's reality diverges from society's expectations. When these two perspectives collide, Asian American students typically keep their struggles to

themselves, which could be due to the fear of bringing disappointment to their parents or families, fear of not meeting society's expectations, and/or fear of playing into the negative stigma of counseling (Iwamoto & Liu, 2010; Yeh, 2005). As such, the needs of Asian Americans are unique and require further understanding of their personal experiences.

By identifying such needs and exploring their rate of engagement, this study adds to the limited research on Asian American students and their levels of student engagement. Much research has been conducted on other students of color, and this study serves to validate whether student engagement is a predictor of success for all students, including Asian American students. Additionally, this research is significant to extant literature on Asian American students as it further conveys how the model minority myth is detrimental to student success.

Personally, the research is significant because I have first-hand experience of being a first-generation Asian American woman in U.S. higher education. Too often, I have encountered situations in which my needs were overlooked, and I was unable to access resources, and this was also true for other Asian Americans in my community. It is likely situations like these occur because of the prevailing belief Asian Americans have already attained a high level of achievement compared to other students of color. As a result, I see the struggle of Asian American students and desire to do my part in highlighting unique challenges Asian American students face so their needs can be met.

The purpose of this study was to examine engagement rates of first-generation and non-first-generation Asian American students at various types of institutions compared to their peers.

Specifically, the questions I proposed to examine were as follows:

1. How do Asian American students compare with their peers on their rate of student engagement on college campuses?
2. Is there a difference in the rates of engagement between first-generation Asian American students and non-first-generation Asian American students?

To answer these questions, this study employed a quantitative research inquiry with the following null hypotheses:

1. There is no significant difference in the rate of student engagement between Asian American students and their peers at different types of institutions.
2. There is no significant difference in the rate of student engagement between first-generation Asian American students and non-first-generation Asian American students.

Literature Review

The purpose of this study was to examine engagement rates of first-generation and non-first-generation Asian American students at various types of institutions compared to their peers. To effectively conduct this study, an exploration of extant literature on student engagement theory and Asian American students was necessary.

Student Engagement Theory

Student engagement in and of itself is a complex area of study because of the various approaches to understanding what engagement is (Kahu, 2013). Axelson and Flick (2011) reported there is a lack of understanding of the relationship between engagement and student learning because the "current definitions of engagement are too abstract, the relationship between engagement and learning too poorly understood, to fully guide us" (p. 43). Thankfully, there have been additional research to define student engagement (Harper & Quaye, 2009; Hu & McCormick, 2012; Kahu, 2013; Kuh, 1995, 2001; Quaye & Harper, 2015). To define student engagement, one first must start with and acknowledge the work of Astin's (1984) student involvement theory.

The focus of student involvement theory is on what students do and how they spend their time in college, or "the amount of physical and psychological energy that the student devotes to the academic experience" (Astin, 1984, p. 297). The premise has been Astin's (1993) input-environment-output (IEO) model, with the belief what students do and how they spend

their time (i.e., inputs) within institutional constructs and campus opportunities (i.e., environment) will affect their outcome (i.e., outputs; Quaye & Harper, 2015; Renn & Reason, 2013). Since the initial conception of student involvement theory, additional research has been conducted and a distinction has been made between student involvement and student engagement. In this sense, the focus of engagement is not only on the output, but also on student learning and the responsibility of both the students and the institutions to create these opportunities for student learning (Kuh et al., 2007; Quaye & Harper, 2015). Hayek (2001, as cited in Pike et al., 2006) found a positive correlation between retention, persistence, and graduation and the "expenditures for instruction, research, academic support, and institutional support" (p. 849). Instead of focusing solely on what students do and how they spend their time, the inputs also include who students are and experiences they bring with them to a college campus.

The environment includes the college campus, the campus culture, and educational opportunities institutions have created to enhance the student experience. These opportunities come in the form of high-impact programs and initiatives (Kuh, 2008). High-impact practices "typically demand considerable time and effort, facilitate learning outside of the classroom, require meaningful interactions with faculty and other students, encourage collaboration with diverse others, and provide frequent and substantive feedback" (National Survey of Student Engagement [NSSE], 2015a, p. 1). The outputs are student learning, student development, and persistence to graduation (Kuh, 2016; Kuh et al., 2006). Kuh (2008) identified 10 high-impact practices effective in deepening the student experience: (a) first-year seminars and experiences; (b) common intellectual experiences; (c) learning communities; (d) writing-intensive courses; (e) collaborative assignments and projects; (f) undergraduate research; (g) diversity/global learning; (h) service learning and community-based learning; (i) internships; and (j) capstone courses and projects.

National Survey of Student Engagement

The NSSE (2017a), developed in 1998 through a grant from the Pew Charitable Trusts, is an instrument used to measure student engagement in the curricular and co-curricular activities that "are linked to student learning" (para. 1). The survey is given to first-year and senior students and the data collected serve several purposes: (a) They provide information to schools so they can focus on areas to improve when it comes to the undergraduate experience. (b) They present information that can be easily understood by parents and prospective students. (c) They allow institutions to compare with other like schools to see how they fare (Kuh, 2001). To provide this information effectively, NSSE (2017b) developed five benchmarks: (a) level of academic challenge, (b) active and collaborative learning, (c) student interactions with faculty members, (d) enriching educational experiences, and (e) supportive campus environment. Studies have concluded NSSE benchmarks of student engagement are important in contributing to student learning and development (Hu & McCormick, 2012; Kuh, 2001; Pike et al., 2011). However, in 2013, NSSE made significant changes to these benchmarks and instead created engagement indicators grouped under the following four engagement themes: (a) Academic Challenge, (b) Learning With Peers, (c) Experiences With Faculty, and (d) Campus Environment (NSSE, 2014, 2017c). Table 1 shows the engagement themes and their associated indicators.

The different questions asked in surveys connect to these engagement themes and indicators. The theme of Academic Challenge measures the amount of effort students put into their studies (i.e., how much time they spend reading, writing, and studying). The survey includes questions about the rigor of their coursework, such as the degree to which they applied theories or facts to solve problems, the opportunities they had to reflect on the impact of topics covered in class on their own lives, what their study habits are, and the frequency of analyzing numerical information from which to draw conclusions. The theme of Learning With Peers measures how students learn. The survey includes questions on whether students have worked with their peers on assignments and how often they have interacted with peers from a different

background. The theme of Experiences With Faculty includes questions about conversations students have had with faculty on their career path and/or academic performance. Under this theme, students can also evaluate professors on their teaching effectiveness and evaluate whether information was communicated in a manner that was easily understood and grasped. The theme of Campus Environment highlights the quality and depth of interaction students have with those in the campus community. In addition, this theme measures how supportive students find the campus to be (NSSE, 2014; see Appendix A for a full description of the indicators and the items incorporated into the surveys to evaluate the indicators and themes).

Table 1

NSSE Engagement Themes and Indicators

Theme	Engagement Indicators
Academic Challenge	Higher Order Learning
	Reflective & Integrative Learning
	Learning Strategies
	Quantitative Reasoning
Learning With Peers	Collaborative Learning
	Discussions With Diverse Others
Experiences With Faculty	Student-Faculty Interaction
	Effective Teaching Practices
Campus Environment	Quality of Interactions
	Supportive Environment

Note. Adapted from "Engagement Indicators and High-Impact Practices," by NSSE, 2015, p. 1. http://nsse.indiana.edu/pdf/EIs_and_HIPs_2015.pdf

The results of the survey include a summary of how undergraduate students are engaged in both curricular and co-curricular activities at a particular school (Kuh, 2001). Hearing what students have to say and taking note of how they are experiencing college is crucial to supporting them (American College Personnel Association [ACPA] & National Association of Student Personnel Administration [NASPA], 2004). In addition, the effort of hearing students' voices is critical in meeting their needs, enhancing their experiences, and contributing to their learning and development (Harper & Quaye, 2015). These components help measure different

aspects of student engagement, which is important particularly as more and more diverse students are attending higher education.

Asian Americans

In the United States, Asian Americans are the fastest growing racial group, and, in fact, it was the fastest growing population between 1990 and 2000 (U.S. Census Bureau, 2002). It is estimated that by 2050, the population of Asian Americans in this country will almost double from almost 17.5 million to almost 34 million (Ortman & Guarneri, n.d.). Furthermore, the projected fall enrollment of Asian Americans in postsecondary institutions is expected to increase by 8.3%, from 1,284,000 in 2017 to 1,391,000 in 2023 (Snyder & Dillow, 2015). With over 50 ethnic, language, and many religious groups within this racial category, Asian Americans are quite heterogeneous (Lee & Kumashiro, 2005). There are also categorizations of Asian American ethnic identities (e.g., East Asians, South Asians, Southeast Asians) that have been identified.

It is important to note, however, that racial groups are socially constructed, which means it is a concept that people and society have created (Oxford Dictionary, 2017). The Asian American race is no exception, particularly as the term Asian has implications (i.e., geographical origin, physical characteristics, or cultural practices; Jo, 2004). In 1977, there were four main racial categories on which the federal government sought to collect data (i.e., White, Black, American Indian or Alaskan Native, and Asian or Pacific Islanders). Without explanation, the “or” in “Asian or Pacific Islanders” began to be replaced by “and,” or the two conjunctions would be used interchangeably (Hall, 2015). Because federal agencies sought to place people in concise, mutually exclusive boxes by having them self-identify as White, Black, American Indian or Alaskan Native, and Asian or Pacific Islander, this was when “Asian” and “Pacific Islander” were placed together as a category. However, the population of Pacific Islanders is quite small and they “exist as only 3 percent of the imagined ‘AAPI’ grouping” (Hall, 2015, p. 745). This distinction in racial categorization is important to bring up because some extant literature still

combine these two racial categories (Dugan & Komives, 2010; National Education Association, 2017; Pang et al., 2011; Teranishi & Nguyen, 2012). Asians and Pacific Islanders confront different challenges and stereotypes. In fact, whereas Asians are considered the model minority, Pacific Islanders are believed to be savages and uneducated (Hall, 2015). Moreover, Pacific Islanders "are not Asian American *at all* [emphasis in original]" (Hall, 2015, p. 741). Therefore, aggregating these two identities together further masks the individual needs of the subgroups under each.

The two main sources for the growth of the Asian population in the United States are immigration and refugee resettlement (Iwamoto & Liu, 2010; Lee & Kumashiro, 2005), which underscore challenges with language and cultural differences for many within this group. Because English may not be the primary language spoken at home, proficiency in English is a challenge, not only for immigrants and refugees, but also for their children (Yeh, 2005). As much as parents may value education as a means for an eventual better life for their children (Museus, 2013), these parents may have a difficult time supporting their children in school for several reasons: (a) they are working multiple jobs to provide for their families, (b) they have little education themselves, or (c) because the language barrier prevents them from communicating with teachers or navigate the school system (Yeh, 2005). For refugees, the U.S. school system may be unfamiliar territory, and coupled with a language barrier, it can translate into little support for the student (Museus, 2013). In addition, oftentimes the expectation is for students to do well in school and then adhere to their Asian culture when they are home (Park, 2008). Being exposed to U.S. culture in the schools can conflict with family and cultural values at home. This conflict is a form of cognitive dissonance because there is a level of discomfort that motivates students to find a means to resolve inconsistencies they experience (Desai, 2015; Hoshino-Browne, 2012; Luttrell, 2016). Cognitive dissonance theory (Festinger, 1957; Festinger & Carlsmith, 1959) pertains to the idea humans value consistency and will do what they need to do to ensure their behavior matches what they believe. When these two elements

do not match, then a tension presents itself and motivates a change in attitude so the attitude and behavior line up (Hoshino-Browne, 2012). For Asian American students in particular, the clash in culture (i.e., culture cognitive dissonance) "impedes learning and success in U.S. educational settings, especially given that the setting refuses to adapt to the diversity of its student body" (S. Spears, personal communication, August 8, 2018).

Not only are Asian Americans extremely heterogeneous in terms of race and ethnicity, but there is also significant variation when it comes to academic achievement. Asian Americans make up 5.5% of the U.S. population and about 20% of that population attends Ivy League schools (Zhou & Lee, 2017). On the other hand, according to census data reported by Reeves and Bennett (2004), 13.3% of Asian Indians, 12.7% of Filipinos, 8.9% of Japanese, 13.7% of Koreans, 53.3% of Cambodians, 59.6% of Hmong, 49.6% of Laos, and 38.1% of Vietnamese over 25 years of age have less than a high school education (p. 12). Many factors can influence such a low educational attainment; however, an important factor is stereotypes. Oftentimes, students of color must combat these presumptions to prove their academic capabilities (Quaye et al., 2015).

For Asian American students, some are regularly subjected to more subtle racism (Museus & Park, 2015), while others may experience overt racism. Perhaps as a result of the model minority myth, Asian Americans have encountered barriers to accessing and receiving student support services (Maramba & Palmer, 2014; Wells & Horn, 2015). Museus and Park (2015) described it best when they conveyed the following:

> [The] model minority myth negatively influences the experiences of Asian American undergraduates by fueling assumptions that they are socially inept, are naturally geared toward math and science, are genetically predisposed to excel academically, and therefore should not need or ask for help. (pp. 565–566)

Not only do Asian Americans struggle with navigating challenges of school and their families, but they also face the assumptions that come with the model minority myth. When the

overarching belief is all Asians are academically inclined, but Asian American students do not view themselves living up to that standard, they can internalize the stereotype (Shen, 2015) and feel embarrassed or inadequate (Wei et al., 2011). The subtle racism Asian Americans experience creates unique challenges for these students of color, particularly as they experience higher levels of psychological distress (Liang et al., 2007; Witkow et al., 2015). They may be counted as people of color and used to help promote diversity on campus, while at the same time, they may intentionally be excluded from services geared toward minority students, such as programming efforts and academic support (Pak et al., 2014). Other times, they are viewed as nonracial or not "real" minorities (Cabrera, 2014).

On the one hand, the message to Asian Americans is they matter on campus in terms of being added to the diversity count, but then on the other hand, they are simply receivers of hollow words because of the lack of effort to validate them and their needs. These presumptions are problematic and impact the leadership development and self-identity of Asian American students (Chung, 2014; Kodama & Abreo, 2009; Li et al., 2014; Museus & Park, 2015). As a result, Asian American students report lower rates of satisfaction in their college experience (Ancis et al., 2000), have negative racial experiences at college (Johnston & Yeung, 2014), and are found to be the most disengaged on college campuses in at least one study related to student engagement (Hu & McCormick, 2012).

First-Generation Status

Another population in higher education that seems to be less engaged overall and less likely to persist and graduate are first-generation students (Pike & Kuh, 2005). There are unique challenges first-generation students face. First of all, first-generation status refers to the educational attainment of the student's parents. The NSSE (2018) defined first-generation as either of the following:

- Highest level of education for either parent is less than a bachelor's degree (parents may have some postsecondary education)

- Highest level of education for either parent is a high school diploma or less (parents have no experience in postsecondary education)

Because first-generation students may be the first in their families to go to college, they have less knowledge about every aspect of college (i.e., from enrollment to life on a college campus) and receive little to no guidance from their parents (Pascarella & Terenzini, 2005). Cultural capital, which refers to "the symbols, ideas, tastes, and preferences that can be strategically used as resources in social action" (Oxford Reference, 2018, para. 1), is therefore at a lower rate. They also arrive to campus with more self-doubt and lower degree aspirations, which results in lower retention rates, and they are less likely to complete a bachelor's degree within 4 years (Ishitani, 2006). Furthermore, first-generation students may feel academically underprepared, and so many choose to focus entirely on academic endeavors and do not participate in co-curricular activities (Hawkins & Larabee, 2009). The implication of this lack of engagement results in first-generation students "making less progress in their learning and intellectual development" (Pike & Kuh, 2005, p. 289).

First-Generation Asian American Students

What happens when a student is first-generation and Asian American? The challenges of intersectionality between first-generation status and race can create even more complex hardships for students. As first-generation students, they may seemingly face challenges due to low cultural capital received from their parents. As first-generation students, they may feel self-doubt in their ability to navigate a college campus—much less navigate college courses—because no other family member can tell them what to expect or provide advice about course selection, financial aid, and offices on campus that can serve as resources. This challenge is compounded if this same person is Asian American because language may be a barrier that prevents them from asking for help. For those who do not have well-educated parents, the factors that may deter first-generation Asian Americans from engaging with faculty are a lack of understanding of the school system and having other responsibilities outside of school (Chang,

2005). In addition, experiencing subtle racism and a lack of support from the campus community, and having to maneuver a campus culture that is different than their upbringing as Asian Americans, adds to the complexities of these two intersecting identities. It is important to note first-generation immigration status can also be arduous.

Although some families immigrated to the United States, it does not necessarily mean the parents have not gone to college; they could have attended college in their home countries. Therefore, these students may not identify as first-generation students according to the definition of first-generation students in higher education. However, the effect of not being familiar with postsecondary education in the United States may be very similar to the effect of being a first-generation student. This study will explore whether first-generation Asian American students are less likely to participate in curricular and co-curricular activities than their non-first-generation Asian American peers.

Conclusions

To adequately serve the current student body, institutions have an obligation to increase support systems for varying sets of needs and experiences these students bring with them (Quaye & Harper, 2015). Part of this effort is also because institutions recognize a diverse student body will help prepare all students to be global citizens and improve educational outcomes for all students. This effort to "uncover inequities in student success, identify effective educational practices, and build such practices organically for sustained institutional change" (Association of American Colleges & Universities, 2017, para. 2) is inclusive excellence. One way colleges initially attempted to increase the diversity on their campuses was through affirmative action practices, which favored admitting minorities or underrepresented students of color to their institution. Initially, this practice was seen as simply denying White students to make room for minorities who were less qualified to atone for past injustices (Bok, 2013). In fact, *Gratz v. Bollinger, 539 U.S. 244* was a high-profile lawsuit against University of Michigan in 2003 that "put an end to [their] point-based undergraduate admission system that automatically

gave Black students points based on their race" (Allen, 2014, para. 3). However, recent practices favor minorities who are qualified, and the Supreme Court has made it clear that the use of race cannot be the sole consideration of a student's admission to an institution. Furthermore, Bok (2013) referenced what Supreme Court Justice Sandra Day O'Connor wrote about a court case, outlining advantages of admitting minorities or underrepresented students of color:

> Minority preferences benefit the society in two important ways. They contribute to the diversity of the student body by bringing different perspectives and experiences to the campus that broaden the understanding of all students and help them learn to live and work effectively with persons different from themselves. (p. 130)

College is certainly the place to live and work effectively with others who are different. In fact, "college attendance, independent of numerous other factors, promotes racial understanding and openness to diversity as well as the belief that racism remains a societal problem" (Pascarella & Terenzini, 2005, p. 581). In a global world, exposure to different viewpoints and different people is extremely important, especially given people are naturally diverse (Robinson, 2013) in race and ethnicity, cultural upbringing, religion, sexual identity, age, and so on. Exposure to people from different backgrounds is inevitable as the demographic landscape of higher education shifts and changes.

Increasingly, students are being encouraged to apply to college because of the prevailing belief one needs more than a high school diploma to succeed in the workplace (Baum et al., 2013; The Pell Institute & Penn AHEAD, 2015). Gone are the days where higher education was reserved solely for White men to be trained (Renn & Reason, 2013). Higher education in the United States broadened the demographics of eligible students when it created what are known today as historically Black colleges and universities (HBCUs). Minority-serving institutions do not simply stop with HBCUs—they also include tribal colleges and universities (TCUs), Hispanic-serving institutions (HSIs), and Asian American and Native American Pacific

Islander-serving institutions (AANAPISIs; Renn & Reason, 2013). At the same time, however, more and more students of color and students from underserved communities are arriving on campus without the needed preparation "to succeed in college-level courses, creating difficult problems for those who must try to remedy their academic deficiencies" (Bok, 2013, p. 79). As a result, institutions are finding they need to be creative in supporting all the needs these populations present during their journey to degree completion to close the equity gap present in higher education.

Methodology

Purpose

The purpose of this study was to examine the engagement rates of first-generation and non-first-generation Asian American students at various types of institutions compared to their peers. To examine the rates of engagement, this study sought to answer the following questions:

1. How do Asian American students compare with their peers on their rate of student engagement on college campuses?
2. Is there a difference in the rates of engagement between first-generation Asian American students and non-first-generation Asian American students?

To answer these questions, this study relied on existing data from a nationally administered survey, which allowed findings from the data analysis to be generalized to the population. In addition, I used descriptive statistics and statistical inference. Descriptive statistics are an approach to formulate and present numerical data in an easy-to-read format. A descriptive design reveals measures of central tendency, which were important in answering the research questions. The use of statistical inference allowed findings from the sample to be applied to the defined population (i.e., Asian American students) to draw conclusions.

Research Design

This study was both a descriptive and inferential statistical study. For this survey design, the unit of analysis was undergraduate, first-year, and senior students at varying institutions. The data source was the Spring 2015 NSSE administration as reported in *The College Student Report* (NSSE, 2015b).

The NSSE is a survey that allows a sample of students at participating institutions in the United State and Canada to self-report activities in which they are engaged, how they are learning, and the quality of their experiences at school. Responses from survey questions on curricular and co-curricular activities align with NSSE's 10 engagement indicators (see Appendix A for a description of indicators).

Each survey consisted of at least 111 questions (more if an institution chose), and these questions gathered data in the following five categories:

1. Participation in dozens of educationally purposeful activities,
2. Institutional requirements and the challenging nature of coursework,
3. Perceptions of the college environment,
4. Estimates of educational and personal growth since starting college, and
5. Background and demographic information. (NSSE, 2017d)

Methods

In 1998, the thought of creating a survey tool to measure undergraduate education was conceived and supported by a grant from The Pew Charitable Trusts. This survey was entitled *The College Student Report* and was launched in 2000 after a successful pilot the year prior with about 175 schools participating (NSSE, 2017a). Since that time, NSSE has been successful at measuring the quality of the undergraduate experience, specifically "the investment that institutions make to foster proven instructional practices and the kinds of activities, experiences, and outcomes that their students receive as a result" (NSSE, 2017d, para. 2). Those who helped draft the survey instrument were Alexander Astin, Gary Barnes,

Arthur Chickering, Peter Ewell, John Gardner, George Kuh, Richard Light, Ted Marchese, and C. Robert Pace. They were successful in creating a survey that:

- consists principally of items that are known to be related to important college outcomes (NSSE, 2017d, para. 8);
- is administered to students at both public and private 4-year colleges and universities (NSSE, 2017d, para. 11);
- is administered to freshman- and senior-level students who have attended the institution for at least two terms (NSSE, 2017d, para. 12);
- is administered to adequate samples at participating institutions (NSSE, 2017d, para. 13);
- is flexible (NSSE, 2017d, para. 14); and
- is administered by a credible third-party survey organization (NSSE, 2017d, para. 15).

The engagement indicators the NSSE uses have undergone rigorous testing—both quantitatively and qualitatively—through focus groups, interviews with students, and multiple years of testing and analysis. Furthermore, the NSSE has administered statistical tests to determine the validity, reliability, and stability of the surveys used.

Participants and Setting

There were 564 institutions in the United States that participated in the 2015 NSSE survey administration, which was the data used for this study. The NSSE's sampling methodology required institutions to either provide a roster of all first-year and senior students or to provide a random selection of equal proportions from these two categories of students based on the total undergraduate enrollment number. In 2015, all but four participating institutions recruited all of their first-year and senior students via email, while the other four participating institutions recruited students via standard mail. Institutions had the option of using their learning management systems or student portals to recruit students for the survey. Across all

participating institutions, nearly 1.4 million students were invited to complete the survey via email with a series of reminders.

Ultimately, a total of 300,543 students accepted the invitation and responded—43% were first-year students and 57% were seniors. The average response rate was shy of 30%. The student characteristics based on race/ethnicity for those who participated in the 2015 NSSE were as follows: African American/Black (9%), American Indian/Alaska native (1%), Asian (5%), Native Hawaiian/other Pacific Islanders (< 1%), Caucasian/White (65%), Hispanic/Latino (13%), Multiracial/Multiethnic (3%), and Foreign/Nonresident Alien (4%; NSSE, 2017d). Furthermore, 46% of the students who participated in the 2015 NSSE survey administration self-identified as first-generation college students (NSSE, 2015c).

The Center for Postsecondary Research at Indiana University's School of Education provided a dataset of core NSSE survey items and scales, institution-provided variables (i.e., sex, race/ethnicity, enrollment status, class level), and institution-level variables (i.e., Basic 2010 Carnegie type, control, enrollment size in categories). This dataset was a 20% random selection of all eligible, first-year and senior U.S. students who completed NSSE in 2015, which equaled 47,306 participants. Of these participants, 36.4% (*n* = 17,096) were first-year students, while 52.2% (*n* = 24,520) were senior students. In addition, 86.7% of the survey participants (*n* = 41,003) indicated they were full-time students.

While some participants skipped the questions on racial/ethnic background and first-generation status, the number of participants who answered the question on racial/ethnic background was 46,904, and the number of participants who answered the question on first-generation status was 46,882. Table 2 presents frequencies and percentages of the racial/ethnic background of the participants, where each student is only represented once. Table 3 presents the comparison of first-generation students and non-first-generation students who participated in the 2015 NSSE survey administration.

There were 47 questions asked in the 2015 NSSE administration that were tied to the 10 engagement indicators—(a) Collaborative Learning, (b) Reflective and Integrative Learning, (c) Student-Faculty Interaction, (d) Higher Order Learning, (e) Effective Teaching Practices, (f) Quantitative Reasoning, (g) Discussions With Diverse Others, (h) Learning Strategies, (i) Quality of Interactions, and (j) Supportive Environments. See Appendix A for the full list of questions tied to the specific engagement indicator.

Table 2

Frequency Table for Racial/Ethnic Background of Participants

Race/Ethnicity	Frequency	Percentage
American Indian or Alaska Native	219	0.5
Asian	2929	6.2
Black or African American	3616	7.7
Hispanic or Latino	4230	9.0
Native Hawaiian or Other Pacific Islander	147	.3
White	29736	63.4
Other	736	1.6
Multiracial	3490	7.4
I prefer not to respond	1801	3.8
Total	46904	100.0

Table 3

Frequency Table for First-Generation Status of Participants

First-Generation Status	Frequency	Percentage
Non-first-generation students	25389	54.2
First-generation students	21493	45.8
Total	46882	100.0

Note. Information in the table reflects student responses. In this case, 22 students did not respond to this question on first-generation status.

Results

The purpose of this study was to examine the engagement rates of first-generation and non-first-generation Asian American students at various types of institutions compared to their peers. I used SPSS (Version 25) for data analysis and narrative interpretation. To answer the

first research question on how Asian American students compare with their peers on their rate of student engagement on college campuses, a one-way between-subjects ANOVA was conducted to compare the effect of race/ethnicity on each of the items associated with the engagement indicators. To answer the second research question regarding whether there is a difference in the rates of engagement between first-generation Asian American students and non-first-generation Asian American students, independent samples *t*-tests were conducted to compare each of the engagement indicators for first-generation Asian American students with non-first-generation Asian American students. Of all 47 engagement indicators and their corresponding items, there were nine variables that showed statistically significant difference.

Research Question 1

The following are the findings for statistically significant engagement indicators and engagement items for the first research question: How do Asian American students compare with their peers on their rate of student engagement on college campuses?

Collaborative Learning

For Collaborative Learning, the effect of race/ethnicity for all four items were statistically significant at the $p < .05$ level, with Items 2 and 4 displaying $p \leq .001$ level. The differences in means suggest Asian American students are:

- more likely than their peers to ask another student to help you understand course material (*p* scores from .002–.044);
- more likely than their Black/African American and Hispanic/Latinx peers to explain course material to one or more students ($p < .001$);
- more likely than their peers to prepare for exams by discussing or working through course material with other students (*p* scores from <.001–.010); and
- more likely than their peers to work with other students on course projects or assignments ($p < .001$).

Table B1 in Appendix B shows the one-way ANOVA post hoc comparisons of Collaboration Learning of Asian American students and the racial ethnic groups found to be statistically significant.

Reflective and Integrative Learning

For Reflective and Integrative Learning, the effect of race/ethnicity for all seven items were statistically significant at the $p < .05$ level, with Items 1, 4, and 6 displaying significance at the $p \leq .001$ level. The differences in means suggest Asian American students are:

- less likely than their White and Multiracial peers to combine ideas from different courses when completing assignments ($p < .001$);
- less likely than their peers to connect their learning to societal problems or issues (p scores from < .001–.005);
- less likely than their peers to include diverse perspectives in their course discussions or assignments (p scores from < .001–.025);
- less likely than their Black/African American and Multiracial peers to examine the strengths and weaknesses of their own views on a topic or issue ($p < .001$);
- less likely than their Black/African American, Hispanic/Latinx, and Multiracial peers to try to better understand someone else's views by imagining how an issue looks from their perspective (p scores from < .001–.008);
- less likely than their Black/African American peers to learn something that changed the way they understood an issue or concept ($p < .001$); and
- less likely than their peers to connect ideas from their courses to prior experiences and knowledge (p scores from < .001–.024).

Table B2 in Appendix B shows the one-way ANOVA post hoc comparisons of Reflective and Integrative Learning of Asian American students and the racial ethnic groups found to be statistically significant.

Student-Faculty Interaction

For Student-Faculty Interaction, the effect of race/ethnicity for all four items were statistically significant at the $p \leq .001$ level for Items 1, 2, and 4; Item 3 was statistically significant at the $p < .005$ level. The differences in means suggest Asian American students are:

- less likely than their Black/African American and White peers to talk about career path plans with a faculty member ($p \leq .001$);
- more likely than their Hispanic/Latinx, White, and Multiracial peers to have worked with a faculty member on activities other than coursework (committees, student groups, etc.) ($p < .001$);
- more likely than their Hispanic/Latinx peers to discuss course topics, ideas, or concepts with a faculty member outside of class ($p = .002$); and
- less likely than their Black/African American peers to discuss their academic performance with a faculty member ($p < .001$).

Table B3 in Appendix B shows the one-way ANOVA post hoc comparisons of Student-Faculty Interaction of Asian American students and the racial ethnic groups that were found to be statistically significant.

Higher Order Learning

For Higher Order Learning, the effect of race/ethnicity for two out of the four items were statistically significant with Item 3 at the $p < .001$ level and Item 4 at the $p \leq .003$ level. The differences in means suggest Asian American students are:

- less likely than their Black/African American peers ($p < .001$) to feel that their coursework emphasized evaluating a point of view, decision, or information source; and
- less likely than their Black/African American peers ($p = .003$) to feel that their coursework emphasized forming a new idea or understanding from various pieces of information.

Table B4 in Appendix B shows the one-way ANOVA post hoc comparisons of Higher Order Learning of Asian American students and the racial ethnic groups found to be statistically significant.

Effective Teaching Practices

For Effective Teaching Practices, the effect of race/ethnicity for four out of the five items were statistically significant for Item 1 at the $p \leq .05$ level and Items 2, 4, and 5 at the $p < .001$ level. The differences in means suggest Asian American students are:

- less likely than their Black/African American ($p = .005$) and Hispanic/Latinx ($p = .003$) peers to feel that instructors clearly explained course goals and requirements.
- less likely than their Black/African American, Hispanic/Latinx, and White peers to feel that instructors taught course sessions in an organized way ($p < .001$).
- less likely than their Black/African American peers ($p < .001$), but more likely than their White peers ($p < .001$) to feel that instructors provided feedback on a draft or work in progress.
- less likely than their Black/African American peers to feel that their instructors provided prompt and detailed feedback on tests or completed assignments ($p < .001$).

Table B5 in Appendix B shows the one-way ANOVA post hoc comparisons of Effective Teaching Practices of Asian American students and the racial ethnic groups found to be statistically significant.

Quantitative Reasoning

For Quantitative Reasoning, the effect of race/ethnicity for all three items were statistically significant with Items 1 and 3 at the $p < .001$ level and Item 2 at $p < .005$ level. The differences in means suggest Asian American students are:

- more likely than their peers to reach conclusions based on their own analysis of numerical information ($p < .001$);

- more likely than their peers to use numerical information to examine a real-world problem or issue (p scores from < .001 – .003); and
- more likely than their peers to evaluate what others have concluded from numerical information (p < .001).

Table B6 in Appendix B shows the one-way ANOVA post hoc comparisons of Quantitative Reasoning of Asian American students and the racial ethnic groups found to be statistically significant.

Discussions With Diverse Others

For Discussions With Diverse Others, the effect of race/ethnicity for all four items were statistically significant at the p < .05 level, with Item 4 significant at the p < .001 level. The differences in means suggest Asian American students are:

- more likely than their White peers (p < .001), but less likely than their Black/African American (p = .011) and Multiracial (p < .001) peers to have discussions with people of a race or ethnicity other than their own;
- less likely than their Black/African American and Multiracial peers (p < .001) and Other peers (p = .014) to have discussions with people from an economic background other than their own;
- less likely to have discussions with people with religious beliefs other than their own (Other p = .004; Multiracial p < .001); and
- less likely than their peers to have discussions with people with political views other than their own (p < .001).

Table B7 in Appendix B shows the one-way ANOVA post hoc comparisons of Discussions with Diverse Others of Asian American students and the racial ethnic groups found to be statistically significant.

Learning Strategies

For Learning Strategies, the effect of race/ethnicity for all three items were statistically significant at the $p < .05$ level. The differences in means suggest Asian American students are:

- less likely than their peers to identify key information from reading assignments (*p* scores from < .001–.011);
- less likely than their American Indian/Alaska Native (p = .004) and Black/African American (p < .001) peers to review their notes after class; and
- less likely than their American Indian/Alaska Native = .005) and Black/African American (p < .001) peers to summarize what they learned in class or from course materials.

Table B8 in Appendix B shows the one-way ANOVA post hoc comparisons of Learning Strategies of Asian American students and the racial ethnic groups found to be statistically significant.

Quality of Interactions

For Quality of Interactions, the effect of race/ethnicity for all five items were statistically significant at the $p < .05$ level, with Items 2, 3, and 5 significant at the $p \leq .001$ The differences in means suggest Asian American students are:

- less likely than their Hispanic/Latinx (*p* = .019), and White (*p* = .002) peers to have quality interactions with other students;
- less likely than their Black/African American (*p* < .001) and White (*p* = .001) peers to have quality interactions with academic advisors;
- less likely than their White and Multiracial peers (*p* < .001) to have quality interactions with faculty;
- less likely than their White peers (*p* = .020) to have quality interactions with student services staff; and

- less likely than their Black/African American, Hispanic/Latinx, and White peers ($p < .001$) to have quality interaction with other administrative staff and offices.

Table B9 in Appendix B shows the one-way ANOVA post hoc comparisons of Quality of Interactions of Asian American students and the racial ethnic groups found to be statistically significant.

Supportive Environment

For Supportive Environment, the effect of race/ethnicity for all eight items were statistically significant at the $p < .05$ level, with Items 1, 2 ,3, and 6 being significant at the $p < .001$ level. The differences in means suggest Asian American students are:

- less likely than their Black/African American, Hispanic/Latinx, and White peers to feel institutional emphasis on providing support to help students succeed academically ($p < .001$);
- less likely than their Black/African American and Hispanic/Latinx peers to feel institutional emphasis on using learning support services ($p < .001$);
- less likely than their Hispanic/Latinx peers to feel institutional emphasis on encouraging contact among students from different backgrounds ($p < .001$);
- less likely than their peers to feel institutional emphasis on providing opportunities to be involved socially (p scores from < .001–.002);
- less likely than their White ($p = .002$) and Multiracial ($p = .025$) peers to feel institutional emphasis on providing support for their overall well-being;
- more likely than their White and Multiracial peers to feel institutional emphasis on helping them manage their nonacademic responsibilities ($p < .001$);
- less likely than their Multiracial peers ($p = .012$) to feel institutional emphasis to attend campus activities and events; and

- less likely than their Black/African American (p = .034) and Hispanic/Latinx (p = .043) peers to feel institutional emphasis to attend events that address important social, economic, or political issues.

Table B10 in Appendix B shows the one-way ANOVA post hoc comparisons of Support Environment of Asian American students and the racial ethnic groups found to be statistically significant.

Research Question 2

The second research question is as follows: Is there a difference in the rates of engagement between first-generation Asian American students and non-first-generation Asian American students? The following were significant differences in the scores for each of the engagement items.

Collaborative Learning

There was a significant difference in the scores for Collaborative Learning Item 2 (i.e., explained course material to one or more students) in first-generation Asian American students (M = 2.70, SD = .814) and non-first-generation Asian American students (M = 2.84, SD = .833); [t(2877) = 4.371, p < .001; d = .111]. The difference in means suggests first-generation Asian American students are less likely than non-first-generation Asian American students to explain course material to one or more students. There was a significant difference in the scores for Collaborative Learning Item 3 (i.e., prepared for exams by discussing or working through course material with other students) in first-generation Asian American students (M = 2.57, SD = .960) and non-first-generation Asian American students (M = 2.67, SD = .919); [t(2654) = 2.907, p = .004; d = .107]. The difference in means suggests first-generation Asian American students are less likely than non-first-generation Asian American students to prepare for exams by discussing or working through course material with other students.

Reflective and Integrative Learning

There was significant difference in the scores for Reflective and Integrative Learning Item 7 (i.e., connected ideas from your courses to your prior experiences and knowledge) in first-generation Asian American students (M = 3.05, SD = .769) and non-first-generation Asian American students (M = 3.13, SD = .766); [t(2860) = 2.672, p = .008; d = .104]. The difference in means suggests first-generation Asian American students are less likely than non-first-generation Asian American students to connect ideas from their courses to their prior experiences and knowledge.

Student-Faculty Interaction

There was significant difference in the scores for Student-Faculty Interaction Item 1 (i.e., talked about career plans with a faculty member) in first-generation Asian American students (M = 2.28, SD = .932) and non-first-generation Asian American students (M = 2.35, SD = .921); [t(2895) = 2.064, p = .039; d = .076]. The difference in means suggests first-generation Asian American students are less likely than non-first-generation Asian American students to talk about their career plans with a faculty member. However, effect size analysis indicated there was no practical significance comparing first-generation Asian American students to non-first-generation Asian American students on this engagement indicator item. There was significant difference in the scores for Student-Faculty Interaction Item 3 (i.e., discussed course topics, ideas, or concepts with a faculty member outside of class) in first-generation Asian American students (M = 2.13, SD = .939) and non-first-generation Asian American students (M = 2.24, SD = .928); [t(2886) = 3.223, p = .001; d = .118]. The difference in means suggests first-generation Asian American students are less likely than non-first-generation Asian American students to discuss course topics, ideas, or concepts with a faculty member outside of class. Furthermore, effect size analysis indicated there was small practical significance comparing first-generation Asian American students to non-first-generation Asian American students on this engagement indicator item.

Discussions With Diverse Others

There was a significant difference in the scores for Discussions With Diverse Others Item 1 (i.e., had discussions with people of a race or ethnicity other than your own) in first-generation Asian American students (M = 3.18, SD = .916) and non-first-generation Asian American students (M = 3.27, SD = .898); [t(2900) = 2.595, p = .010; d = .099]. The difference in means suggests first-generation Asian American students are less likely than non-first-generation Asian American students to have discussions with people of a different race or ethnicity. However, effect size analysis indicated there was no practical significance comparing first-generation Asian American students to non-first-generation Asian American students on this engagement indicator item.

Quality of Interactions

There was significant difference in the scores for Quality of Interactions Item 3 (i.e., quality of interactions with faculty) in first-generation Asian American students (M = 5.19, SD = 1.490) and non-first-generation Asian American students (M = 5.35, SD = 1.472); [t(2837) = 2.828, p = .005; d = .108]. The difference in means suggests first-generation Asian American students are less likely than non-first-generation Asian American students to have quality interactions with faculty. Furthermore, effect size analysis indicated there was small practical significance comparing first-generation Asian American students to non-first-generation Asian American students on this engagement indicator item.

Supportive Environment

There was significant difference in the scores for Supportive Environment Item 1 (i.e., institutional emphasis providing support to help students succeed academically) in first-generation Asian American students (M = 2.97, SD = .844) and non-first-generation Asian American students (M = 3.03, SD = .820); [t(2850) = 2.074, p = .038; d = .072]. The difference in means suggests first-generation Asian American students are less likely than non-first-generation Asian American students to feel the institution emphasized providing support to help

students succeed academically. However, effect size analysis indicated there was no practical significance comparing first-generation Asian American students to non-first-generation Asian American students on this engagement indicator item. Finally, there was significant difference in the scores for Supportive Environment Item 7 (i.e., institutional emphasis attending campus activities and events (performing arts, athletic events, etc.) in first-generation Asian American students (M = 2.65, SD = .996) and non-first-generation Asian American students (M = 2.79, SD = .926); [$t(2579) = 3.772$, $p < .001$; $d = .146$]. The difference in means suggests first-generation Asian American students are less likely than non-first-generation Asian American students to feel the institution emphasized attending campus activities and events. Furthermore, effect size analysis indicated there was small practical significance comparing first-generation Asian American students to non-first-generation Asian American students on this engagement indicator item. Table B11 in Appendix B shows the independent samples *t*-test comparisons of the engagement indicators and first-generation status of Asian American students that were found to be statistically significant.

Summary/Conclusions of Results

There were no surprises in the results of this study. The data suggested Asian American students largely were not as engaged compared to their peers, a finding that was acknowledged by Hu and McCormick (2012) that Asian Americans were the most disengaged on college campuses. In this present study, Asian American students were not as engaged as it related to the NSSE (2015a) engagement indicators.

Each engagement indicator included items to determine how engaged the student was at their institution—Collaborative Learning had four items, Reflective and Integrative Learning had seven items, Student-Faculty Interaction had four items, Higher Order Learning had four items, Effective Teaching Practices had five items, Quantitative Reasoning had three items, Discussions With Diverse Others had four items, Learning Strategies had three items, Quality of Interactions had four items, and Supportive Environment had eight items (see Appendix A for a

full listing of all 47 items). Of the 47 items, there were 11 items on which Asian American students were more likely than their peers to engage in the activity (see Table 3 for a list of the 11 engagement items).

Table 3

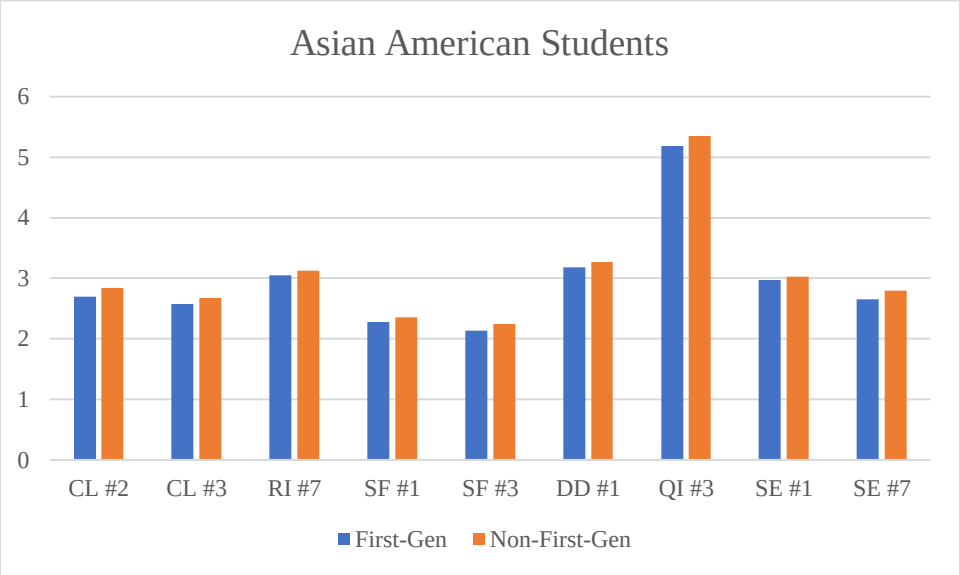
11 Engagement Items Where Asian Americans Are More Likely Than Their Peers to Engage

Engagement Indicator	Engagement Item
Collaborative Learning	Item 1: Asked another student to help you understand course material
Collaborative Learning	Item 2: Explained course material to one or more students
Collaborative Learning	Item 3: Prepared for exams by discussing or working through course material with other students
Collaborative Learning	Item 4: Worked with other students on course projects or assignments
Quantitative Reasoning	Item 1: Reached conclusions based on your own analysis of numerical information (numbers, graphs, statistics, etc.)
Quantitative Reasoning	Item 2: Used numerical information to examine a real-world problem or issue (unemployment, climate change, public health, etc.)
Quantitative Reasoning	Item 3: Evaluated what others have concluded from numerical information
Student-Faculty Interaction	Item 2: Worked with a faculty member on activities other than coursework (committees, student groups, etc.)
Student-Faculty Interaction	Item 3: Discussed course topics, ideas, or concepts with a faculty member outside of class
Discussions With Diverse Others	Item 1: People from a race or ethnicity other than your own
Supportive Environment	Item 6: Helping you manage your nonacademic responsibilities (work, family, etc.)

Additionally, in this study, first-generation Asian American students were less likely than non-first-generation Asian American students to be engaged on their college campuses. In every category, first-generation students were less likely than non-first-generation students to work with their peers, reflect on their experiences, interact with faculty, and feel their institution supported them. Figure 1 provides a graph of statistically significant engagement items comparing first-generation Asian American students and non-first-generation Asian American students.

Figure 1

Comparison of first-generation Asian American students and non-first-generation Asian American students.



Note. This figure highlights the nine statistically significant engagement items. CL#2 = Collaborative Learning Item #2; CL #3 = Collaborative Learning Item #3; RI #7 = Reflective and Integrative Learning Item #7; SF #1 = Student-Faculty Interaction Item #1; SF #3 = Student-Faculty Interaction Item #3; DD #1 = Discussions With Diverse Others Item #1; QI #3 = Quality of Interactions Item #3; SE #1 = Supportive Environment Item #1; SE #7 = Supportive Environment Item #7. Refer to Appendix for a list of the questions associated with each engagement item.

Discussion

The results and findings from the data analysis have significant implications. The following sections provide a synthesis and implications of the findings as it related to each of the research questions as well as to extant literature.

Asian Americans and Their Peers

Student engagement is a predictor of student success (Harper & Quaye, 2009; Kuh, 2001; Pascarella & Terenzini, 2005; Quaye & Harper, 2015). In addition, it is a combination of the educational activities offered by the institution and the intentional interactions students engage in that motivate them to persist and graduate (Kuh, 2001; Kuh et al., 2007). Unfortunately, in this study, the data suggested that, compared to their peers, Asian Americans

largely were not as engaged, a finding that was acknowledged by Hu and McCormick (2012) that Asian Americans were the most disengaged on college campuses. In this present study, Asian American students were not as engaged as it related to the NSSE (2015a) engagement indicators. Of the 47 items, there were 11 items on which Asian American students were more likely than their peers to engage in the activity. Seven of these 11 engagement items made up the Collaborative Learning and Quantitative Reasoning engagement indicators.

Collaborative Learning involved four engagement indicators and the data suggested that Asian American students were more likely than their peers to engage in all of these activities, which implied that reliance on and collaboration with peers were key components for them. Not only did they ask other students to help them understand course material, but their peers also relied on them to explain course material. This reliance on each other was also used to prepare for exams. This finding implied that collaborating with other peers was their mode of academic survival for many of the Asian American students. It also supported the cultural value of collectivism to which many Asian American groups adhere. Collectivism refers to putting group interests before individual interests (Fu, 2010) and, in this sense, collaborating with peers was an effort toward continued academic progress.

Unlike Collaborative Learning, which emphasized working with other students, Quantitative Reasoning involved reaching conclusions based on their own analysis. The data suggested that Asian American students were more likely than their peers to engage in all of these activities. Viewing this engagement indicator alone seemed to contradict Collaborative Learning. However, considering this finding through the lens of some of the Asian cultural values implied that perhaps Asian American students were interested in seeing how information impacted the larger society and how they might positively affect the larger group. This implication would reinforce the cultural value of collectivism. If the two engagement items under Student-Faculty Interaction were considered along with Quantitative Reasoning, then perhaps additional cultural values such as deference to authority, filial piety, and hierarchical

relationships positioned Asian American students to be more likely than their peers to work with a faculty member. These are the same cultural values that may motivate faculty to connect with Asian American students and work with them on activities other than coursework. Additionally, I speculated whether the greater likelihood of interacting with faculty to work on activities other than coursework and discuss topics, ideas, or concepts outside the classroom impacted the greater likelihood of Asian American students compared to their peers to be engaged in Quantitative Reasoning, particularly if it was research that supported a real-world issue.

Under Discussions With Diverse Others, Asian American students were more likely than their White peers, but less likely than their Black/African American and Multiracial peers, to have discussions with people of a race or ethnicity other than their own. This finding was not surprising. The Asian American population attending college is small compared to other races and ethnicities (NCES, 2016). Furthermore, the number of White faculty and administrators is significantly greater than any other race or ethnicity (Data USA, n.d.). Therefore, it is more likely Asian American students will have the opportunity to interact with people of a different race or ethnicity than White students. However, the data also suggested that Asian American students were less likely than their Black/African American and Multiracial peers to have discussions with people of another race or ethnicity than their own. This would therefore imply that Asian American students perhaps do not or prefer not to have discussions with people of a different race or ethnicity. There can be several reasons for not engaging in discussions with others. For example, language can be a barrier for those whose primary language is not English. The way others view Asian American students can be another reason. The perpetual foreigner myth is the belief that Asian Americans will always be seen as the “other” regardless of how long they have been in this country (Murjani, 2014). Much of this stereotype comes from the belief that Asians speak poor English (Iwamoto & Liu, 2010) regardless of where they were born. Therefore, if other students perceive that Asian American students may be “foreign,” then it could limit the opportunity for Asian American students to have discussions with people of a

different race or ethnicity. Another potential reason is this idea of ethnic matching that seems to have only been studied in the context of counseling (Presley & Day, 2018; Zane & Ku, 2014). Presley and Day (2018) found that ethnic matching seemed to provide a level of comfort between therapists and clients. Future research may explore the impact of ethnic matching in the context of higher education, particularly as the finding from this study implied that Asian Americans are more likely to collaborate and work with other Asian Americans.

Finally, under Supportive Environment, Asian American students were more likely than their White and Multiracial peers to perceive their institution emphasized helping them manage their nonacademic responsibilities such as work and family. This finding implies that the peer-to-peer connections and collaborations, much like Collaborative Learning, allowed Asian American students to manage their nonacademic responsibilities. In other words, Asian American students relied on each other to take notes if they could not be in class due to work, and/or they relied on each other when they had to go to class and childcare was needed or if they had other family responsibilities to tend to. Another possible implication of this finding comes in the context of thinking about how students perceive faculty, staff, and administrators. Though these are three separate employment categories, students tend not to understand the distinctions. Instead, any type of interaction students have with an employee of the institution reflects that institution. In other words, if Asian American students have a conversation with the faculty they are connected to regarding nonacademic responsibilities, then they may perceive that the institution provided this type of support to help manage nonacademic responsibilities such as work and family.

These were the only two explanations I fathomed; particularly as Asian American students were less likely than their peers to feel institutional emphasis in the seven other engagement items under Supportive Environment. In addition, this finding confirmed that because Asian Americans are oftentimes viewed as nonracial or not “real” minorities (Cabrera, 2014), they are excluded from supportive services geared toward minority students (Pak et al.,

2014), which impacted their perception of their institution providing a supportive environment. It is important to note that, in general, people of color tend to be less likely than their White counterparts to seek help (Carter & Forsyth, 2010). Additionally, Brownson et al. (2012) reported Asian American students sought "professional help over their lifetime at lower rates than other students" (p. 124) because of systemic and/or cultural barriers (Choi et al., 2009). These cultural barriers included many Asian cultural values (Choi et al., 2009; Kim, 2007; Miville & Constantine, 2009), which can prevent Asian American students from accessing support services.

First-Generation Asian American Students v. Non-First-Generation Asian American Students

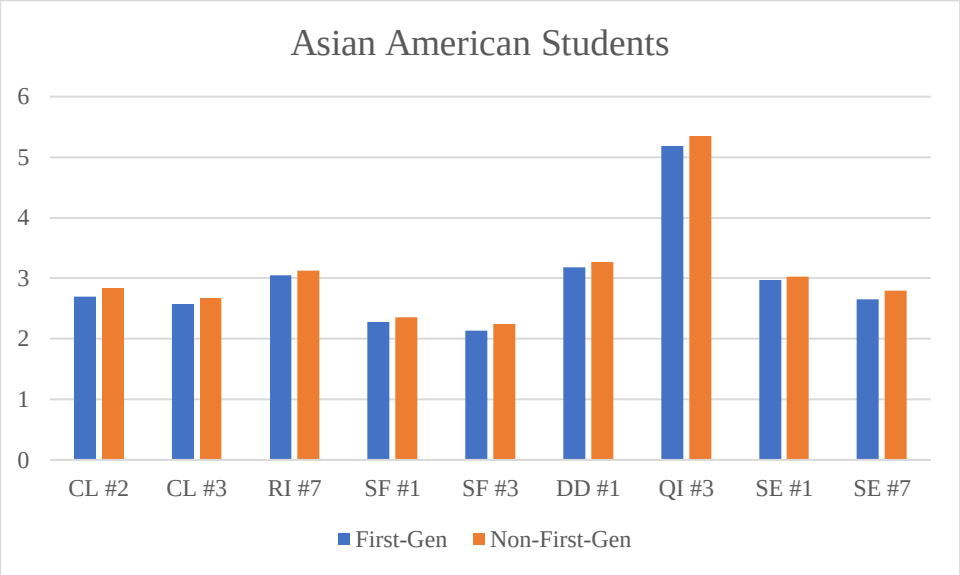
In this study, first-generation Asian American students were less likely than non-first-generation Asian American students to be engaged on their college campuses. In every category, first-generation students were less likely than non-first-generation students to work with their peers, to reflect on their experiences, to interact with faculty, and to feel their institution supported them. Figure 2 provides a graph of statistically significant engagement items comparing first-generation Asian American students and non-first-generation Asian American students. The data confirmed what extant literature has suggested—that first-generation students are less likely to be engaged overall than non-first-generation students (Hawkins & Larabee, 2009; Pascarella & Terenzini, 2005; Pike & Kuh, 2005). Since many first-generation students feel academically underprepared, they focus entirely on academic endeavors and make it a point to participate only in academic activities (Hawkins & Larabee, 2009). This singular focus by first-generation students on their academic life may pull students away from engaging in activities that are believed to help them find a sense of belonging on their campus (Kuh et al., 2008; Wells & Horn, 2015) and deepen their experience on campus (Kuh, 2008; 2016), which in turn affects the retention, persistence, and graduation (Hayek, 2001; Kuh et al., 2008; Kuh, 2016).

As the data suggested, first-generation Asian American students were less likely to explain course material to other students and less likely to prepare for exams by discussing or working through course material with other students than their non-first-generation Asian American peers. In addition to being less connected to other students, first-generation Asian American students were also less likely to interact with faculty. If they did interact with faculty, first-generation Asian American students reported that the quality they experienced through that interaction was less than that experienced by non-first-generation Asian American students. In light of the differences found between first-generation Asian American students and non-first-generation Asian American students, however, it is important to mention that there was little to no practical significance, which meant there was not much difference between the two groups. This would therefore imply that first-generation Asian American students and non-first-generation Asian American students respond similarly. This finding was not all that surprising when viewed through the lens of culture cognitive dissonance.

Studies comparing cultural variations of Eastern civilization and Western civilization (Hoshino-Browne et al., 2005; Markus & Kitayama, 1991, 2010; Triandis, 1989, 1996) have yielded noticeable differences in terms of how they view themselves and, in turn, how they relate to others. Those who grew up in an individualistic culture retained more of an independent self-view whereas those who grew up in a collectivist culture retained more of an interdependent self-view (Hoshino-Browne, 2012; Hoshino-Browne et al., 2005). Interdependency favors being connected to others and, “to maintain harmonious relationships, being similar to others is more important than being unique or standing out” (Hoshino-Browne, 2012, p. 130). Therefore, the Asian cultural values present distinct challenges to first-generation and non-first-generation Asian American students in the U.S. educational system where the emphasis is more individualistic (Yeh, 2005). Furthermore, the degree to which the cultural values influence the rate of engagement depends upon how acculturated Asian Americans are into Western values (Hui & Lent, 2018).

Figure 2

Comparison of First-Generation Asian American Students and Non-First-Generation Asian American Students



Note. This figure highlights the nine statistically significant engagement items. CL#2 = Collaborative Learning Item #2; CL #3 = Collaborative Learning Item #3; RI #7 = Reflective and Integrative Learning Item #7; SF #1 = Student-Faculty Interaction Item #1; SF #3 = Student-Faculty Interaction Item #3; DD #1 = Discussions With Diverse Others Item #1; QI #3 = Quality of Interactions Item #3; SE #1 = Supportive Environment Item #1; SE #7 = Supportive Environment Item #7. Refer to Appendix A for a list of the questions associated with each engagement item.

The degree of acculturation is a fascinating topic considering the generation status of some Asian American students, because being a first-generation student is not equal to being first-generation in the United States. Logically, Asian Americans who are considered to be the third or fourth generations in the United States would be much more acculturated than second-generation Asian Americans and certainly more acculturated than first-generation Asian Americans. Therefore, this logic begs the question of how the degree of acculturation as determined by generation status impacts the experiences and student engagement rates of first-generation Asian American students. I believe this would be an intriguing area to study in the future.

Limitations

There were six limitations of this study worth mentioning. First, the nature of the NSSE survey was voluntary and the data was based on self-reporting. This was a limitation because each survey question was subject to individual interpretation, and students may have elected to skip questions. For example, students were given two sets of four choices to answer some questions. The four choices for one set were *never, sometimes, often,* and *very often*. The choices for another set were *very little, some, quite a bit,* and *very much*. There were also some questions that asked students to rank on a scale of 1 to 7 (1 = *poor* to 7 = *excellent*). Therefore, the answers given were highly subjective.

The second limitation was that each campus was different and thus resources at each institution were likely different. As a result, the impact on the student experience may have skewed the data. The third limitation was that the information on Asian Americans was in aggregate, which means it was not broken down by specific ethnicities. In other words, the data gathered prevented me from accurately identifying and comparing the various ethnic identities within the Asian American identity (i.e., East Asians, Southeast Asians, and South Asians). As a result of the aggregated data, I recognized that my findings were also overgeneralizing Asian American students as one group, which did not allow me to see differences between various ethnic groups, including differences in cultural values, beliefs, or mores.

The fourth limitation was the nuance of first-generation versus non-first-generation in terms of immigration status. Asian Americans who are the first generation in their families to grow up in this country may not actually be first-generation students in postsecondary education. However, their experiences may be similar if their parents went to school in their home countries, which may skew some of the survey results. The fifth limitation was that this study used NSSE data. Therefore, it took a sample of a sample, which again may have limited its generalizability because of nonresponses in the sample depending upon the data that was provided.

Finally, the sixth limitation was that there were different response rates from the 564 institutions that participated. The average response rate was 29%, and the highest response rate was 89% (NSSE, 2015c). Furthermore, higher response rates came from smaller institutions and those that offered incentives (NSSE, 2015c). As each institution is different, varying response rates may have skewed the data. In spite of these limitations, this quantitative study confirmed extant literature and highlighted additional areas for future research.

Recommendations for Future Research

The intent of this study was to address the dearth of research and expand on what was currently available on Asian American college students. The biggest challenge has been that data oftentimes are gathered and presented in aggregate. Aggregated data mask the needs of the individuals within the group while, at the same time, overgeneralize the needs of the group. Stemming from this study in particular, there are several recommendations I have for future areas of focus for research. The first recommendation is an exploration by future researchers into Asian American cultural values and the impact they have on rates of student engagement.

While the findings of this study implied that Asian American students relied on their peers for academic survival, the influential extents of the belief in the model minority myth and the adherence to cultural values raised additional questions. Were Asian American students more likely than their peers to ask another student to help them understand course material because of the cultural value of deference to authority or avoidance of perceived shame if they asked their faculty? For the engagement items of explaining course material to one or more students and preparing for exams by working with other students, did the assumption of the model minority myth influence their peers to approach the Asian American students and, in turn, cause the Asian American students to be more engaged than their peers in these engagement items? The data also suggested that Asian American students were more likely to work with other students on course projects or assignments than their peers. This could be connected to the cultural value of collectivism, which refers to putting group interests before individual

interests (Fu, 2010). According to Hui and Lent (2018), the degree to which cultural values influence the rate of engagement depends upon how acculturated and encultured Asian Americans are into Western values. This leads to the second recommendation for future research, which is to explore generation status and when Asian American students immigrated to the United States to determine if this impacts engagement and specifically in what ways.

Much research has been done on first-generation students and non-first-generation students (Hawkins & Larabee, 2009; Ishitani, 2006; Pascarella & Terenzini, 2005; Pike & Kuh, 2005). In this study, it was not surprising that the data suggested that first-generation students were less likely than their non-first-generation peers to be engaged on campus. However, the main source of the Asian American population in the United States is largely from people who have entered this country either as immigrants or as refugees. It is important to note there are areas in which there are many third- and fourth-generation Asian Americans, particularly as Endo (1980) pointed out that the Chinese and Japanese immigrated to the United States during the mid- to late-1800s. Likewise, Murjani (2014) has also reported that Japanese Americans were placed in internment camps during World War II because they were seen as a threat to the security of the nation. In light of this, the Pew Research Center (2012) stated, “It is not yet possible to make any full intergenerational accounting of the modern Asian American immigration wave; the immigrants themselves are still by far the dominant group and the second generation has only recently begun to come into adulthood in significant numbers” (para. 34). Therefore, future research could explore when these first-generation students entered the U.S. school system and how that might influence rates of student engagement.

Another recommendation is to use NSSE data to explore whether engagement in one activity impacts engagement in another activity. For example, in my study, I speculated that interacting with faculty outside the classroom may impact the finding that Asian American students are more likely than their peers to engage in the items that make up Quantitative Reasoning. In other words, because Asian American students were more likely than their peers

to interact with faculty, I speculated that faculty encouraged the students to consider Quantitative Reasoning. On their own, the students may not have engaged in Quantitative Reasoning. Therefore, this could imply a correlation between Student-Faculty Interaction and Quantitative Reasoning.

Outside of recommendations for future research, I also offer three recommendations for practical application based on the implications of my findings. First, as it relates to first-generation status, I do not believe there is any harm in providing additional support to all Asian American students as if they were all first-generation students. Given there was little to no practical significance found between first-generation Asian American students and non-first-generation Asian American students, the approach for all Asian American students can be the same. In general, first-generation students receive little guidance from their parents (Pascarella & Terenzini, 2005) and may feel academically underprepared (Hawkins & Larabee, 2009). Therefore, hosting workshops geared specifically for Asian Americans to cover topics such as financial literacy, course selections, and the importance of networking with others who are different from them would be highly beneficial.

Second, faculty and administrators could consider incorporating and encouraging more group work and peer-to-peer collaboration since data from this study suggested that Asian American students were more likely to collaborate with their peers academically. This likelihood to work with one another is already a strength among Asian American students, and therefore it would take little effort to capitalize on this opportunity for Asian American students to be engaged. While much extant literature has pushed and will continue to push collecting disaggregated data to identify the specific needs of the Asian American student population, I do not recommend creating separate smaller work groups based on disaggregated data for institutions where the Asian American student population is quite small. According to the last U.S. census in 2010, Asian Americans only make up 5.6% of the U.S. population (U.S. Census Bureau, 2012). Therefore, it would be suitable, at institutions, to create Asian American peer

groups for small Asian American populations for the purposes of collaboration. For institutions that have been designated as an Asian American Native American Pacific Islander-serving institution (AANAPISI), I recommend creating work groups based on disaggregated data. The AANAPISI program is a federally funded program, much like historically Black colleges and universities (HBCUs) and Hispanic-serving institutions (HSIs). For any school to be eligible for AANAPISI designation, it has to enroll at least 10% of students who identify as Asian American, Native American, or Pacific Islander. In addition, at least 50% of the students must receive federal financial assistance (AANAPISI, 2016). The areas in which these peer groups would be appropriate are living-learning communities in the residence halls, experiential or social cohorts based on interest and/or identity, and peer-to-peer mentoring specifically for Asian American students.

Third, while Asian American students are more likely to work with a faculty member on activities other than coursework and to discuss course topics, ideas, or concepts with a faculty member outside of class, but are less likely to talk about career plans or discuss academic performance with a faculty member, I recommend faculty members or student services professionals more purposefully develop programming in the latter two activities as Asian American students are connecting with them about course topics and ideas or working with them on activities other than coursework. The first step I suggest for faculty is to seek out professional development opportunities to learn how to use culturally relevant pedagogy. Doing so will help frame the context for faculty to begin such conversations with Asian American students. The second step I suggest to engage Asian American students is to actively listen to the course topics and ideas or activities the students are bringing up in conversation when talking with them about their career plans and academic performance. Voicing observations based on the conversations and simply asking students how those interests are connected to their career plans is a straightforward strategy to engage Asian American students in this manner and thereby increase student-faculty interaction.

Final Thoughts

Overall, this quantitative study found that Asian American students do not engage at the same rates as their peers, that first-generation Asian American students are less likely than non-first-generation Asian American students to be engaged on their campuses. While they do not engage at the same rates, there are two engagement indicators on which Asian American students are more likely to participate—Collaborative Learning (i.e., asking another student to help you understand course materials, explaining course material to one or more students, preparing for exams by discussing or working through course material with other students, and working with other students on course projects or assignments) and Quantitative Reasoning (i.e., reaching conclusions based on your own analysis of numerical information, using numerical information to examine a real-world problem or issue, and evaluating what others have concluded from numerical information). Additionally, Asian American students are more likely to work with a faculty member on activities other than coursework, such as on committees and in student groups and discuss course topics, ideas, or concepts with a faculty member outside of class. Therefore, to better support Asian American students, institutions, faculty, and practitioners ought to meet them where their strengths lie. As the population of Asian Americans is predicted to grow in the coming years, finding ways to support Asian American students is crucial. In addition, as enrollment numbers are slated to decline in the coming years for all racial groups except for Asian Americans (Bransberger & Michelau, 2016), it is in the interest of institutions to determine how best to support their Asian American students and, in turn, attract more Asian American students to help with enrollment numbers.

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Appendix A

Description of Engagement Indicators and Items

Engagement Theme: Academic Challenge

Higher Order Learning
During the current school year, how much has your coursework emphasized the following:
Item 1: Applying facts, theories, or methods to practical problems or new situations
Item 2: Analyzing an idea, experience, or line of reasoning in depth by examining its parts
Item 3: evaluating a point of view, decision, or information source
Item 4: Forming a new idea or understanding from various pieces of information

Reflective & Integrative Learning
During the current school year, how often have you:
Item 1: Combined ideas from different courses when completing assignments
Item 2: Connected your learning to societal problems or issues
Item 3: Included diverse perspectives (political, religious, racial/ethnic, gender, etc.) in course discussions or assignments
Item 4: Examined the strengths and weaknesses of your own views on a topic or issue
Item 5: Tried to better understand someone else's views by imagining how an issue looks from his or her perspective
Item 6: Learned something that changed the way you understand an issue or concept
Item 7: Connected ideas from your own courses to your prior experiences and knowledge

Learning Strategies
During the current school year, how often have you:
Item 1: Identified key information from reading assignments
Item 2: Reviewed your notes after class
Item 3: Summarized what you learned in class or from course materials

Quantitative Reasoning
During the current school year, how often have you:
Item 1: Reached conclusions based on your own analysis of numerical information (numbers, graphs, statistics, etc.)
Item 2: Used numerical information to examine a real-world problem or issue (unemployment, climate change, public health, etc.)
Item 3: Evaluated what others have concluded from numerical information

Engagement Theme: Learning with Peers

Collaborative Learning
During the current school year, how often have you:
Item 1: Asked another student to help you understand course material
Item 2: Explained course material to one or more students
Item 3: Prepared for exams by discussing or working through course material with other students

Item 4: Worked with other students on course projects or assignments

Discussions With Diverse Others
During the current school year, how often have you had discussions with people from the following groups:
Item 1: People from a race or ethnicity other than your own
Item 2: People from an economic background other than your own
Item 3: People with religious beliefs other than your own
Item 4: People with political views other than your own

Engagement Theme: Experiences With Faculty

Student-Faculty Interaction
During the current school year, how often have you:
Item 1: Talked about career plans with a faculty member
Item 2: Worked with a faculty member on activities other than coursework (committees, student groups, etc.)
Item 3: Discussed course topics, ideas, or concepts with a faculty member outside of class
Item 4: Discussed your academic performance with a faculty member

Effective Teaching Practices
During the current school year, to what extent have your instructors done the following:
Item 1: Clearly explained course goals and requirements
Item 2: Taught course sessions in an organized way
Item 3: Used examples or illustrations to explain difficult points
Item 4: Provided feedback on a draft or work in progress
Item 5: Provided prompt and detailed feedback on tests or completed assignments

Engagement Theme: Campus Environment

Quality of Interactions
Indicate the quality of your interactions with the following people at your institution:
Item 1: Students
Item 2: Academic advisors
Item 3: Faculty
Item 4: Student services staff (career services, student activities, housing, etc.)
Item 5: Other administrative staff and offices (registrar, financial aid, etc.)

Supportive Environment
How much does your institution emphasize the following?
Item 1: Providing support to help students succeed academically
Item 2: Using learning support services (tutoring services, writing center, etc.)
Item 3: Encouraging contact among students from different backgrounds (social, racial/ethnic, religious, etc.)
Item 4: Providing opportunities to be involved socially
Item 5: Providing support for your overall well-being (recreation, health care, counseling, etc.)
Item 6: Helping you manage your nonacademic responsibilities (work, family, etc.)

Item 7: Attending campus activities and events (performing arts, athletic events, etc.)
Item 8: Attending events that address important social, economic, or political issues

Note. Adapted from "Engagement Indicators and High-Impact Practices," by NSSE, 2015a. Retrieved from http://nsse.indiana.edu/pdf/EIs_and_HIPs_2015.pdf

Appendix B

Tables Associated with Research Questions

Table B1

One-Way ANOVA Post Hoc Comparisons of Collaborative Learning of Asian American Students Compared to Statistically Significant Racial Ethnic Groups

Variable	*p*	*M*	*SD*	*d*
Item 1 – Asked another student to help you understand course material				
Asian American (*n* = 2896)		2.89	.858	
Black/African American (*n* = 3558)	.007	2.80	.930	.100
Hispanic/Latino (*n* = 4190)	.044	2.82	.895	.080
White (*n* = 29537)	.002	2.82	.887	.079
Multiracial (*n* = 3462)	.002	2.80	.905	.102
Item 2 – Explained course materials to one or more students				
Asian American (*n* = 2887)		2.78	.827	
Black/African American (*n* = 3552)	< .001	2.64	.884	.163
Hispanic/Latino (*n* = 4179)	< .001	2.67	.828	.133
Item 3 – Prepared for exams by discussing or working through course material with other students				
Asian American (*n* = 2895)		2.63	.938	
Black/African American (*n* = 3561)	< .001	2.47	1.020	.163
Hispanic/Latino (*n* = 4198)	.010	2.54	.991	.093
White (*n* = 29550)	< .001	2.53	.988	.102
Item 4 – Worked with other students on course projects or assignments				
Asian American (*n* = 2900)		2.76	.871	
Black/African American (*n* = 3558)	< .001	2.47	.932	.221
Hispanic or Latino (*n* = 4177)	< .001	2.54	.871	.149
White (*n* = 29526)	< .001	2.50	.879	.194
Other (*n* = 728)	< .001	2.50	.929	.193
Multiracial (*n* = 3450)	< .001	2.55	.898	.135

Table B2

One-Way ANOVA Post Hoc Comparisons of Reflective and Integrative Learning of Asian American Students Compared to Statistically Significant Racial Ethnic Groups

Variable	*p*	*M*	*SD*	*d*
Item 1 – Combined ideas from different courses when completing assignments				
Asian American (*n* = 2905)		2.84	.834	
White (*n* = 29570)	< .001	2.93	.840	.107
Multiracial (*n* = 3454)	< .001	2.97	.855	.154
Item 2 – Connected your learning to societal problems or issues				
Asian American (*n* = 2877)		2.73	.864	
Black/African American (*n* = 3538)	< .001	2.89	.903	.181
Hispanic/Latino (*n* = 4171)	.005	2.81	.895	.091
White (*n* = 29422)	.002	2.80	.878	.080
Multiracial (*n* = 3440)	< .001	2.89	.891	.182
Item 3 – Included diverse perspectives (political, religious, racial/ethnic, gender, etc.) in course discussions or assignments				
Asian American (*n* = 2892)		2.62	.902	
Black/African Americans (*n* = 3555)	< .001	2.81	.932	.207
Hispanic/Latino (*n* = 4182)	.002	2.70	.935	.087
White (*n* = 29462)	.025	2.68	.907	.066
Other (*n* = 727)	.003	2.76	.944	.154
Multiracial (*n* = 3452)	< .001	2.80	.935	.196
Item 4 – Examined the strengths and weaknesses of your own views on a topic or issue				
Asian American (*n* = 2884)		2.82	.802	
Black/African Americans (*n* = 3551)	< .001	2.96	.845	.169
Multiracial (*n* = 3444)	< .001	2.95	.838	.158
Item 5 – Tried to better understand someone else's views by imagining how an issue looks from his or her perspective				
Asian American (*n* = 2888)		2.92	.810	
Black/African American (*n* = 3544)	< .001	3.06	.803	.174
Hispanic/Latino (*n* = 4186)	.008	3.00	.824	.098
Multiracial (*n* = 3439)	< .001	3.06	.825	.171
Item 6 – Learned something that changed the way you understood an issue or concept				
Asian American (*n* = 2892)		2.95	.782	
Black/African American (*n* = 3535)	< .001	3.04	.807	.113
Item 7 – Connected ideas from your courses to your prior experiences and knowledge				
Asian American (*n* = 2870)		3.10	.768	
American Indian/Alaska Native (*n* = 217)	.007	3.29	2.51	.191
Black/African American (*n* = 3535)	< .001	3.23	.771	.169
Hispanic/Latino (*n* = 4168)	< .001	3.19	.756	.118
White (*n* = 29370)	< .001	3.22	.738	.162
Other (*n* = 723)	.024	3.20	.761	.130
Multiracial (*n* = 3418)	< .001	3.27	.745	.225

Table B3

One-Way ANOVA Post Hoc Comparisons of Student-Faculty Interaction of Asian American Students Compared to Statistically Significant Racial Ethnic Groups

Variable	*p*	*M*	*SD*	*d*
Item 1 – Talked about career plans with a faculty member				
Asian American (*n* = 2904)		2.32	.928	
Black/African American (*n* = 3558)	< .001	2.44	.997	.124
White (*n* = 29492)	.001	2.40	.954	.084
Item 2 – Worked with a faculty member or activities other than coursework (committees, student groups, etc.)				
Asian American (*n* = 2892)		2.01	.986	
Hispanic/Latino (*n* = 4174)	< .001	1.89	1.013	.120
White (*n* = 29419)	< .001	1.89	.994	.121
Multiracial (*n* = 3454)	< .001	1.90	1.002	.111
Item 3 – Discussed course topics, ideas, or concepts with a faculty member outside of class				
Asian American (*n* = 2894)		2.19	.934	
Hispanic/Latino (*n* = 4169)	.002	2.10	.986	.093
Item 4 – Discussed your academic performance with a faculty member				
Asian American (*n* = 2889)		2.22	.913	
Black/African American (*n* = 3543)	< .001	2.39	.965	.180

Table B4

One-Way ANOVA Post Hoc Comparisons of Higher Order Learning of Asian American Students Compared to Statistically Significant Racial Ethnic Groups

Variable	*p*	*M*	*SD*	*d*
Item 3 – Coursework emphasized: Evaluating a point of view, decision, or information source				
Asian American (*n* = 2883)		3.02	.821	
Black/African American (*n* = 3547)	< .001	3.13	.834	.133
Item 4 – Coursework emphasized: Forming a new idea or understanding from various pieces of information				
Asian American (*n* = 2877)		3.00	.823	
Black/African American (*n* = 3531)	.003	3.08	.850	.095

Table B5

One-Way ANOVA Post Hoc Comparisons of Effective Teaching Practices of Asian American Students Compared to Statistically Significant Racial Ethnic Groups

Variable	*p*	*M*	*SD*	*d*
Item 1 – Instructors: Clearly explained course goals and requirements				
Asian American (*n* = 2912)		3.18	.749	
Black/African American (*n* = 3568)	.005	3.25	.815	.089
Hispanic/Latino (*n* = 4207)	.003	3.25	.773	.092
Item 2 – Instructors: Taught course sessions in an organized way				
Asian American (*n* = 2900)		3.08	.795	
Black/African American (*n* = 3559)	< .001	3.18	.854	.121
Hispanic/Latino (*n* = 4189)	< .001	3.17	.810	.112
White (*n* = 29541)	< .001	3.15	.759	.092
Item 4 – Instructors: Provided feedback on a draft or work in progress				
Asian American (*n* = 2900)		2.93	.890	
Black/African American (*n* = 3547)	< .001	3.03	.962	.107
White (*n* = 29463)	< .001	2.82	.945	.117
Item 5 – Instructors: Provided prompt and detailed feedback on tests or completed assignments				
Asian American (*n* = 2885)		2.90	.878	
Black/African American (*n* = 3537)	< .001	3.01	.938	.121

Table B6

One-Way ANOVA Post Hoc Comparisons of Quantitative Reasoning of Asian American Students Compared to Statistically Significant Racial Ethnic Groups

Variable	*p*	*M*	*SD*	*d*
Item 1 – Reached conclusions based on your own analysis of numerical information (numbers, graphs, statistics, etc.)				
Asian American (*n* = 2915)		2.75	.892	
Black/African American (*n* = 3580)	< .001	2.63	.976	.128
Hispanic/Latino (*n* = 4202)	< .001	2.64	.964	.118
White (*n* = 29613)	< .001	2.60	.956	.158
Multiracial (*n* = 3475)	< .001	2.63	.972	.128
Item 2 – Used numerical information to examine a real-world problem or issue (unemployment, climate change, public health, etc.)				
Asian American (*n* = 2912)		2.53	.936	
Black/African American (*n* = 3577)	.003	2.43	1.002	.103
Hispanic/Latino (*n* = 4199)	.001	2.43	.995	.103
White (*n* = 29553)	< .001	2.36	.966	.176
Multiracial (*n* = 3472)	< .001	2.40	.991	.135
Item 3 – Evaluated what others have concluded from numerical information				
Asian American (*n* = 2899)		2.52	.901	
Black/African American (*n* = 3563)	< .001	2.38	.992	.147
Hispanic/Latino (*n* = 4182)	< .001	2.36	.983	.168
White (*n* = 29476)	< .001	2.37	.941	.160
Multiracial (*n* = 3459)	< .001	2.41	.966	.117

Table B7

One-Way ANOVA Post Hoc Comparisons of Discussions With Diverse Others of Asian American Students Compared to Statistically Significant Racial Ethnic Groups

Variable	*p*	*M*	*SD*	*d*
Item 1 – Had discussions with people of a race or ethnicity other than your own				
Asian American (*n* = 2910)		3.23	.908	
Black/African American (*n* = 3588)	.011	3.31	.887	.089
White (*n* = 29596)	< .001	3.05	.909	.198
Multiracial (*n* = 3472)	< .001	3.36	.840	.149
Item 2 – Had discussions with people from an economic background other than your own				
Asian American (*n* = 2907)		3.05	.926	
Black/African American (*n* = 3571)	< .001	3.19	.912	.152
Other (*n* = 723)	.014	3.18	.906	.141
Multiracial (*n* = 3464)	< .001	3.28	.840	.261
Item 3 – Had discussions with people with religious beliefs other than your own				
Asian American (*n* = 2903)		3.01	.981	
Other (*n* = 721)	.004	3.16	.941	.154
Multiracial (*n* = 3465)	< .001	3.15	.924	.147
Item 4 – Had discussions with people with political views other than your own				
Asian American (*n* = 2883)		2.83	.999	
Black/African American (*n* = 3557)	< .001	2.98	.984	.151
Hispanic/Latino (*n* = 4182)	< .001	2.99	.981	.162
White (*n* = 29423)	< .001	3.03	.903	.219
Other (*n* = 721)	< .001	3.04	.986	.211
Multiracial (*n* = 3452)	< .001	3.11	.932	.291

Table B8

One-Way ANOVA Post Hoc Comparisons of Learning Strategies of Asian American Students Compared to Statistically Significant Racial Ethnic Groups

Variable	*p*	*M*	*SD*	*d*
Item 1 – Identified key information from reading assignments				
Asian American (*n* = 2893)		3.17	.754	
Black/African American (*n* = 3579)	< .001	3.34	.735	.229
Hispanic/Latino (*n* = 4201)	.011	3.24	.768	.092
White (*n* = 29557)	.006	3.23	.775	.078
Multiracial (*n* = 3461)	.011	3.24	.783	.091
Item 2 – Reviewed your notes after class				
Asian American (*n* = 2885)		2.91	.896	
American Indian/Alaska Native (*n* = 218)	.004	3.16	.841	.280
Black/African American (*n* = 3554)	< .001	3.07	.890	.179
Item 3 – Summarized what you learned in class or from course materials				
Asian American (*n* = 2865)		2.88	.885	
American Indian/Alaska Native (*n* = 213)	.005	3.13	.889	.282
Black/African American (*n* = 3519)	< .001	3.04	.891	.180

Table B9

One-Way ANOVA Post Hoc Comparisons of Quality of Interactions of Asian American Students Compared to Statistically Significant Racial Ethnic Groups

Variable	*p*	*M*	*SD*	*d*
Item 1 – Quality of interactions with students				
Asian American (*n* = 2897)		5.58	1.342	
Hispanic/Latino (*n* = 4179)	.019	5.69	1.373	.081
White (*n* = 29408)	.002	5.68	1.278	.078
Item 2 – Quality of interactions with Academic Advisors				
Asian American (*n* = 2844)		5.12	1.693	
Black/African American (*n* = 3541)	< .001	5.31	1.737	.111
White (*n* = 29138)	.001	5.26	1.704	.082
Item 3 – Quality of interactions with faculty				
Asian American (*n* = 2847)		5.28	1.482	
White (*n* = 29185)	< .001	5.57	1.309	.219
Multiracial (*n* = 3414)	< .001	5.43	1.413	.104
Item 4 – Quality of interactions with student services staff				
Asian American (*n* = 2626)		4.88	1.687	
White (*n* = 25176)	.020	5.00	1.655	.072
Item 5 – Quality of interactions with other administrative staff and offices				
Asian American (*n* = 2740)		4.72	1.729	
Black/African American (*n* = 3456)	< .001	4.92	1.820	.112
Hispanic/Latino (*n* = 4037)	< .001	4.92	1.798	.113
White (*n* = 27691)	< .001	4.94	1.668	.131

Table B10

One-Way ANOVA Post Hoc Comparisons of Supportive Environment of Asian American Students Compared to Statistically Significant Racial Ethnic Groups

Variable	*p*	*M*	*SD*	*d*
Item 1 – Institutional emphasis: Providing support to help students succeed academically				
Asian American (*n* = 2859)		3.00	.830	
Black/African American (*n* = 3515)	< .001	3.12	.892	.139
Hispanic/Latino (*n* = 4141)	< .001	3.11	.853	.130
White (*n* = 29329)	< .001	3.07	.824	.085
Item 2 – Institutional emphasis: Using learning support services (tutoring services, writing center, etc.)				
Asian American (*n* = 2868)		2.96	.926	
Black/African American (*n* = 3521)	< .001	3.16	.921	.217
Hispanic/Latino (*n* = 4155)	< .001	3.09	.926	.140
Item 3 – Institutional emphasis: Encouraging contact among students from different backgrounds (social, racial/ethnic, religious, etc.)				
Asian American (*n* = 2862)		2.72	.966	
Hispanic/Latino (*n* = 4163)	< .001	2.83	1.002	.111
Item 4 – Institutional emphasis: Providing opportunities to be involved socially				
Asian American (*n* = 2872)		2.87	.905	
Black/African American (*n* = 3529)	< .001	2.99	.950	.129
Hispanic/Latino (*n* = 4159)	.001	2.96	.934	.098
White (*n* = 29346)	< .001	2.97	.896	.112
Multiracial (*n* = 3446)	.002	2.96	.909	.099
Item 5 – Institutional emphasis: Providing support for your overall well-being (recreation, health care, counseling, etc.)				
Asian American (*n* = 2864)		2.82	.919	
White (*n* = 29324)	.002	2.89	.930	.075
Multiracial (*n* = 3442)	.025	2.90	.948	.086
Item 6 – Institutional emphasis: Helping you manage your non-academic responsibilities (work, family, etc.)				
Asian American (*n* = 2861)		2.39	.998	
White (*n* = 29316)	< .001	2.22	.988	.172
Multiracial (*n* = 3442)	< .001	2.22	1.016	.169

Variable	*p*	*M*	*SD*	*d*
Item 7 – Institutional emphasis: Attending campus activities and events (performing arts, athletic events, etc.)				
Asian American (*n* = 2862)		2.73	.960	
Multiracial (*n* = 3430)	.012	2.82	.979	.093
Item 8 – Institutional emphasis: Attending events that address important social, economic, or political issues				
Asian American (*n* = 2850)		2.51	.975	
Black/African American (*n* = 3504)	.034	2.59	1.058	.078
Hispanic/Latino (*n* = 4133)	.043	2.59	1.046	.079

Table B11

Significant Independent Samples t *Test Comparing Engagement Indicators and First-Generation Status of Asian American Students*

Variable	*p*	*M*	*SD*	*d*
Collaborative Learning Item 2: Explained course material to one or more students	< .001			.170
First-generation (*n* = 1260)		2.70	.814	
Non-first-generation (*n* = 1619)		2.84	.833	
Collaborative Learning Item 3: Prepared for exams by discussing or working through course material with other students	.004			.107
First-generation (*n* = 1263)		2.57	.960	
Non-first-generation (*n* = 1624)		2.67	.919	
Reflective & Integrative Learning Item 7: Connected ideas from your courses to your prior experiences and knowledge	.008			.104
First-generation (*n* = 1257)		3.05	.769	
Non-first-generation (*n* = 1605)		3.13	.766	
Student-Faculty Interaction Item 1: Talked about career plans with a faculty member	.039			.076
First-generation (*n* = 1267)		2.28	.932	
Non-first-generation (*n* = 1630)		2.35	.921	
Student-Faculty Interaction Item 3: Discussed course topics, ideas, or concepts with a faculty member outside of class	.001			.118
First-generation (*n* = 1262)		2.13	.939	
Non-first-generation (*n* = 1626)		2.24	.928	
Discussions With Diverse Others Item 1: Had discussions with people of a race or ethnicity other than your own	.010			.099
First-generation (*n* = 1271)		3.18	.916	
Non-first-generation (*n* = 1631)		3.27	.898	
Quality of Interactions Item 3: Quality of interactions with faculty	.005			.108
First-generation (*n* = 1234)		5.19	1.490	
Non-first-generation (*n* = 1605)		5.35	1.472	
Supportive Environment Item 1: Institutional emphasis providing support to help students succeed academically	.038			.072
First-generation (*n* = 1247)		2.97	.844	
Non-first-generation (*n* = 1605)		3.03	.820	
Supportive Environment Item 7: Institutional emphasis attending campus activities and events (performing arts, athletic events, etc.)	< .001			.146
First-generation (*n* = 1248)		2.65	.996	
Non-first-generation (*n* = 1607)		2.79	.926	