3-9-2015

For-Profit Higher Education Students: How Are They Different?

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127 Pages May 2015

The for-profit higher education sector has been part of the higher education landscape for over 200 years (Kinser, 2006). For the most part, this sector enrolled students who differed from students who attended public and private nonprofit institutions. Students at for-profit institutions were older working adults with children of their own, or who enrolled in higher education to enhance their careers. Accordingly, they had no time for pageantry, sports teams, and other extracurricular activities (Kinser, 2006). Notably, administrators at nonprofit institutions lacked interest in recruiting these students, because they did not fit into norms of their institutions (Deming, Goldin, & Katz, 2012). Consequently, the for-profit sector remained an unassuming part of the higher education landscape for many years, enrolling a minor portion of the student population.

However, this dynamic changed as "fall enrollment in for-profit degree-granting institutions grew by more than 100-fold from 18,333 in 1970 to 1.85 million in 2009" (Deming et al., 2012, p. 140). As a result, this sector now enrolls a substantial proportion of the student population.

For that reason, the differences between students at for-profit institutions and those at nonprofit institutions require an in-depth analysis.

With this in mind, I employed data from two National Center for Education Statistics (NCES) datasets to test 26 hypotheses that described differences between students at for-profit institutions and those at nonprofit institutions in four areas: academic preparation and background, demographics, factors involved in choosing a college, and the ways students paid for college. To differentiate this study from most other studies and to compare students with similar goals, I included only bachelor's degree-seeking students at four-year institutions. Cross-tabulations with Chi-square tests were used to test the hypotheses. The effect size for each cross tabulation was also calculated.

Because of the large sample sizes, all results yielded differences that were significant at the .001 level. Yet moderate to large effect sizes were found with regard to 4 demographic variables and 1 school-choice variable. Specifically, cross tabulations led to effect sizes of this magnitude when comparing bachelor's degree seeking students (across sectors) who were (a) financially independent from their parents, (b) financially independent from their parents with children of their own, (c) single parents (independent students only), and (d) older than the age of 30. Similarly, in regard to school choice variables, effect sizes of over .30 were found in cross tabulations comparing the proportions of bachelor's degree seeking students across sectors who take all their courses online.

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A Dissertation Submitted in Partial
Fulfillment of the Requirements
for the Degree of

DOCTOR OF PHILOSOPHY

Department of Educational Administration and Foundations

ILLINOIS STATE UNIVERSITY

2015

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ACKNOWLEDGMENTS

Initially, I wish to thank my advisor Dr. James Palmer for the extra time and effort that he gave assisting me with this project. He responded quickly when I needed help and spent numerous hours providing the expert tutelage that I needed to complete this manuscript. In addition, I thank the administration, staff, and faculty at Midstate College for their enthusiastic support and words of encouragement.

Furthermore, I thank my wife Sandra for her understanding and patience. Although she never completely understood why I spent so much time and effort towards this endeavor, she gave me all her support. Finally, I thank my father William H. Young for his unconditional love and support throughout the years. I appreciate him more than he will ever know and all my efforts and projects in life are dedicated to him.

B.J.Y.

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CHAPTER I

THE PROBLEM AND ITS BACKGROUND

The for-profit educational sector currently enrolls close to 10% of all U.S. higher education students (Knapp, Kelly-Reid, & Ginder, 2011, Table 6). Despite this statistic, for-profit institutions enrolled an insignificant percentage of students for many years, as they only offered training for trades such as "plumbing, restaurant management, art and design, cosmetology, paralegal work, and the like" (Tierney, 2011, p.1). Notably, this changed dramatically when "fall enrollment in for-profit degree-granting institutions grew by more than 100-fold from 18,333 in 1970 to 1.85 million in 2009" (Deming et al., 2012, p. 140). (Deming et. al., 2012, p. 140). In fact, a few for-profit institutions grew to be among the largest universities in the nation. For example, the University of Phoenix enrolled 455,600 students in 2010, an enrollment "larger than the entire ungraduated enrollment of the Big Ten" (Wilson, 2010, "Neon Lights" section, para. 6). Other rapidly expanding schools included Corinthian College Inc. and DeVry University, both of which grew to enroll over 80,000 students in 2011 (Tierney, 2011).

Equally impressive was the strong financial returns that accompanied the growth, as the for-profit sector emerged to produce billions in annual revenues (Morey, 2004). The biggest catalyst was a change made to the Higher Education Act of 1972 that gave students at for-profit institutions access to federally backed student loans (Schilling, 2013). Although designed to increase educational access for the underserved, this

legislation ignited an ongoing controversy that continues to this day. For instance, critics claim for-profit institutions collect student loan proceeds to enhance their revenue streams, while providing little value to students (e.g., Johnson, 2011). In similar fashion, denouncers criticize the for-profit sector for employing a market mentality that promotes a narrow focus. For example, one writer believes that "the services that are provided are focused on job placement, rather than on programs that might help to create a sense of community" (Persell & Wenglinksky, 2004, p.352).

In fact, some critics believe a market mentality supersedes the purpose of higher education. For example, one writer claimed that "participation in the market began to undercut the tacit contract between professors and society, primarily because the market puts as much emphasis on the bottom line as on client welfare" (Slaughter & Leslie, 1997, p. 5).

To present the opposite view, writers draw out arguments that support the for-profit sector. For example, one writer conveys a claim that for-profit institutions provide educational access to those "underrepresented or denied participation in the traditional higher education sectors" (Kinser, 2006, p. 66). In similar fashion, writers convey a viewpoint that for-profit institutions help students navigate the higher education system and ultimately help them start their careers (e.g., Guida & Figuli, 2012). In regard to the market approach criticism, one writer explains that for-profit institutions enroll students who simply want to increase their marketability and have no interest in nonessential extracurricular activities (Morey, 2001).

Significantly, across higher education sectors, the for-profit sector enrolls the greatest proportion of students who obtain public financial aid (Andrew & Russo, 1989). Accordingly, one report estimates that students at for-profit institutions receive approximately 19% of all public financial aid (Johnson, 2011). In view of that, their welfare should be of public concern. Existing research explains organizational differences between the for-profit sector and other sectors, examining variances in strategies, faculty culture, and ownership (e.g., Breneman, Pusser & Turner, 2006; Kinser, 2006; Lechuga, 2006). Certainly, most of these studies expose one or more of these differences using data from various sources. But no one study focuses exclusively on how student differences between for-profit and nonprofit institutions impact the organizational differences between these schools.

This void presents a problem when the for-profit educational sector is compared to nonprofit sectors. In effect, comparisons that neglect to take into account student differences may lead to false assumptions that imply all students, regardless of the institution that they attend, seek the same benefits from higher education. In fact, the same may be said when comparing the benefits of a Toyota Camry to those of a Porsche. In this example, purchasers of a Toyota Camry seek reliability, whereas purchasers of a Porsche seek a sleek design. Therefore, it would be unfitting to compare the quality of the two cars because consumers often define quality based on different criteria (Peter & Donnelly, 2010).

In this spirit, I tested hypotheses that addressed how bachelor's degree-seeking students at four-year for-profit institutions differ from those at traditional higher

education sectors: public four-year colleges and nonprofit private four-year colleges. In fact, an exclusive focus on bachelor's degree-seeking students at four-year institutions presents a unique perspective not addressed in existing literature. For this reason, I included only these students. Although all higher education sectors, including the for-profit sector, contain two-year institutions (Wine, Bryan & Siegel 2014), these institutions were excluded from this study.

To test the hypotheses, I selected variables from the National Postsecondary Student Aid Study (NPSAS) and the Beginning Postsecondary Students Longitudinal Study (BPS). Employing the selected variables, I constructed cross tabulations that brought out differences between students across the higher education sectors. To show that these differences were not the result of chance alone and to explain the magnitude of these differences, I calculated chi-square statistics and effect sizes as well.

The hypotheses fell into four categories that differentiate bachelor's degree-seeking students at for-profit institutions from those at traditional institutions. These categories included differences in academic preparation, differences in demographics, differences in school choice criteria, and differences in how students pay for education. As mentioned above, data to test the hypotheses were drawn from two student surveys overseen by the National Center for Education Statistics (NCES). The first, defined as the National Postsecondary Student Aid Study (NPSAS) focuses specifically on responses from undergraduates enrolled in 2012, and was the most recent available NCES dataset (NCES, n.d.).

The second draws from a Beginning Postsecondary Students Longitudinal Study (BPS) and examines the characteristics, aspirations, and educational experiences of first-time college students. The BPS dataset examines first-time higher education students who began postsecondary study in 2003-04. They were interviewed in 2004, and were subsequently invited to be interviewed three and six years later to examine many aspects of their college experiences (BPS, n.d.).

Importance and Nature of the Study

Essentially, the purpose is not to editorialize either for or against the for-profit industry, but to help legislators, administrators, and faculty make informed decisions. Because their decisions have an effect on students, higher education institutions, and taxpayers, it is imperative that they reach decisions based on empirical information as opposed to headlines or innuendo. Similarly, the general public should have access to information that will help them to objectively judge the merits of each educational sector.

Moreover, I addressed the literature that describes students at for-profit institutions as "significantly different" (Chung, 2012, p. 1086) from students at nonprofit schools. For instance, the literature indicates that many students at for-profit institutions hold full-time jobs and have children of their own (Kinser, 2006). For that reason, they are often described as "non-traditional" students (e.g., Sperling & Tucker, 1997, p. 19). Although nonprofit institutions lacked interest in recruiting these students for many years, this lack of interest has recently begun to turn around (Bleak, 2005).

As mentioned above, for-profit institutions reaped strong financial rewards through the recruitment of nontraditional students. Faced with escalating costs and

funding cuts, some nonprofit institutions have also come to view nontraditional students as a revenue source (Bleak, 2005). Evidence of this appears in promotional campaigns. For example, some private, nonprofit institutions offer weekend and evening classes to accommodate adult working students (e.g., Aurora University, n.d.). In a similar fashion, Arizona State University presents testimonials from older adult students (Arizona State University, n.d.).

In this vein, the findings of this study should help administrators at for-profit and traditional sectors understand more clearly which students they are in true competition for (i.e., which students tend to enroll in either the for-profit or traditional sectors), as well as which students they tend not to be in competition for (i.e., students who tend to enroll in the for-profit sector rather than the traditional sector, or vice versa). These insights will be helpful to college recruiters as well as to policy makers seeking to understand student preferences across sectors in state higher education systems.

In addition, the findings shed light on educational equity, noting how low-income, minority, or at-risk bachelor's-degree-seeking students distribute themselves across sectors. Certainly, educational equity provides an opportunity for economically disadvantaged individuals to overcome social stratification. However, societies also benefit when their postsecondary institutions recruit and retain students from low-income backgrounds. When a nation produces more college graduates, more of its citizens will become civically engaged, conduct research and build infrastructure (Persell & Wenglinsky, 2004). Hence, it is important that policy makers and the general public

monitor which sectors are providing opportunities to economically disadvantaged students.

Drawing on the National Postsecondary Student Aid Study (NCES, n.d.) and the Beginning Postsecondary Students Student Longitudinal Study (BPS, n.d.), I employed directional hypotheses to determine how bachelor's degree-seeking students at four-year for-profit institutions differ from bachelor's degree-seeking students at four-year traditional institutions. A directional hypothesis is a proposition that makes "a statement about the direction of the effect" (Gravetter & Wallnau, 2009, p. 255). For example, a directional hypothesis might state that students older than 30 are more likely to attend for-profit institutions than traditional institutions. In essence, this is the opposite of stating that students older than 30 are equally likely to enroll in any sector (null hypothesis).

Limitations and Delimitations

Limitations

Despite the rich data available in the NPSAS and BPS data sets, some observations in the literature lead to inferences that cannot be quantitatively verified with these national data sets. For example, the literature indicates that some students choose for-profit institutions based on convenience (Morey, 2004). Although this may be true, there is no variable in the NCES database that specifically addresses convenience as a criterion for school choice.

In addition, because results were not available to researchers until a year after the study was completed (Wine et. al., 2014), outdated information increased the possibility

of reporting inaccuracies. For instance, if traditional institutions attracted a higher proportion of students older than 30 between the date the study was completed and the date results were available, the age distribution findings may be inexact. Nonetheless, the large sample sizes minimized the possibility of substantial reporting errors. Moreover, it must be taken into account that assembling data for thousands of students is an inherently time-consuming project. Thus, a time gap between the data collection and the reporting of results is inevitable.

Delimitations

I included only students seeking bachelor's degrees at four-year institutions and excluded students who were seeking certificates, diplomas, and associate's degrees. As a result, some associate's degree-seeking students who planned to later seek bachelor's degrees from a four-year institution were excluded because they were not attending four-year institutions at the time of the study. Although their goals and aspirations were similar to those of students included in the study, I excluded them because they were pursuing those goals by different means. Moreover, this exclusion was necessary because many students at community colleges and two-year for-profit institutions sought only certificates or other non-degree credentials (Tierney & Hentschke, 2007). Because their goals were not congruent to those of bachelor's degree-seeking students, these students needed to be excluded. Nonetheless, a possible focus for future studies is a comparison between for-profit and nonprofit two-year programs that offer certificates and associate degrees.

In summary, limitations included unquantifiable observations and potentially outdated information, while delimitations included the necessary exclusion of institutions that do not enroll bachelor's degree-seeking students. However, despite these limitations and delimitations, the data collected proved sufficient to conduct rich comparisons between bachelor's degree seeking students at four-year for-profit higher education institutions and those at other higher education providers.

CHAPTER II

REVIEW OF RELATED LITERATURE

To make comparisons among higher education institutions, government agencies separate higher education institutions into sectors. For example, the Integrated Postsecondary Education Data System (IPEDS) separates higher education institutions into the following sectors:

- Private for-profit four-year college or university—A private institution in which the individual(s) or agency in control receives compensation other than wages, rent, or other expenses for the assumption of risk.
- Private not-for-profit college or university—A private institution in which the individual(s) or agency in control receives no compensation, other than wages, rent, or other expenses for the assumption of risk. These include both independent not-for-profit schools and those affiliated with a religious organization.
- Public institution—An educational institution whose programs and activities are operated by publicly elected or appointed school officials and which is supported primarily by public funds (NCES, 2012).

Although these definitions adequately differentiate the sectors, the literature supplies alternative terminology to compare educational sectors. For instance, writers frequently merge private not-for-profit colleges with public institutions into a single

category that they describe as *traditional* (e.g., Tierney, 2011, p. 2). Often, I will adopt this terminology, as well as the term *non-profit institutions* (Bleak, 2005, p. 9), which is a compatible term. That being said, some sector comparisons require more precise definitions, as I will explain later in the methods section.

To continue, the for-profit sector is often characterized by its ownership structure, sources of revenues, and business strategies. In regard to ownership structure, for-profit colleges and universities are usually privately owned by families or large corporations (Kinser, 2006). Family-owned institutions are usually governed by individual family members, whereas large corporate-owned institutions are governed by boards of directors who represent shareholders (Chung, 2012). In contrast, trustees govern public institutions as well as private nonprofit institutions. At private nonprofit institutions, trustees often represent the nonprofit corporation or religious body governing the institution, while at public institutions trustees are elected or appointed by government officials to represent the interest of the general public (Tierney & Hentschke, 2007).

In regard to sources of revenue, for-profit institutions do not receive direct subsidies from governments; however, they do receive indirect subsidies in the form of grants and loans given to their students to pay for tuition (Johnson, 2011). In addition, for-profit institutions employ business strategies that differ from those used in not-for-profit sectors. For example, for-profit institutions spend heavily on sales and advertising to increase revenues, while hiring part-time and non-tenured instructors to keep costs low (Lechuga, 2006). On the other hand, traditional colleges, funded through private donations, public funds, and research (Bleak, 2005), spend liberally towards tenured full-

time faculty, campus beautifications, and competitive sports teams (Labaree, 2007). Certainly, traditional institutions are more interested in prestige and outward appearances than net profit margins; yet revenue is still a concern as upgrades are designed to lure additional private donations (Tierney & Hentschke, 2007).

Furthermore, modern college students come in a variety of ages, ethnic backgrounds, and economic circumstances and their motivations to attend college vary. For instance, students unconcerned with intercollegiate athletics, or beautiful campuses, steer towards for-profit institutions (Breneman et al., 2006). By the same token, students seeking pageantry, ceremony, and prestige steer away from the for-profit sector.

Review of Literature

Marketing professors explain to their students that prospective customers consider a wide variety of criteria before making purchasing decisions (Peter & Donnelly, 2010). In the United States higher education system, students are buyers and, similar to buyers of consumer goods and services, they buy for an assortment of reasons. Consequently, the suppliers of higher education accommodate a variety of buying motives. Accordingly, for-profit colleges and universities captured a significant share of the United States higher education market by attracting a niche of students who do not easily fit into the traditional mold. With this in mind, the following paragraphs review what the literature describes as key differences between students at for-profit institutions and students at traditional institutions.

All in all, the literature commonly points out that students in the for-profit sector differ from students in traditional sectors in four important areas. First, students differ as

to their academic preparation and backgrounds. Second, students differ in their demographic characteristics. Third, students differ in the criteria used to make their college choices, and finally students differ in how they pay for their education. All things considered, these will be the key differences that I will address in the following section.

Academic Preparation and Background

One reason that students "enroll in bachelor's degree programs at for-profit institutions is that they would not be accepted elsewhere" (Morey, 2004, p.136). Indeed, for-profit sector institutions accept almost all applicants who apply (Ruch, 2001), as contrasted to elite private nonprofit institutions that gain prestige by rejecting most of their applicants (Tierney, 2011). Without doubt, liberal admission standards enhance access (Guida & Figuli, 2012), but also create the likelihood that some students will not be academically prepared. Likewise, strict admission standards at many traditional institutions minimize the likelihood that ill-prepared students will be admitted.

In particular, many students in the for-profit sector "did not excel academically in high school, and had mixed success in prior college work" (Ruch, 2001, p. 32). Similarly, they are often admitted with "lower tested abilities and weaker academic backgrounds than students in not-for profit private and public institutions" (Kinser, 2006, p. 69). Additionally, students at for-profit institutions are likely to have poorer high school attendance records than students who attend traditional institutions (Cellini, 2012, p.157). Moreover, students in the for-profit sector "are almost twice as likely to have a General Equivalency Degree (GED)" (Deming et al., 2012, p. 146) than are students who

attend nonprofit institutions. In fact, some for-profit institutions admit individuals without high school degrees (Tierney & Hentschke, 2007).

NCES data summaries support these findings. For example, a 2007-08 data analysis indicated that 13.7% of for-profit sector students had received a GED (vs. a high school diploma), as compared to 3.1% in the private nonprofit four-year sector, 2.5% in the public four-year sector, and 8.3% in the public 2-year sector. In addition, 2.6% of students in the for-profit sector did not complete high school, as compared to .8% of students in all other sectors combined (Staklis & Chen, 2010). In addition, other factors that often separate students at for-profit institutions from those at traditional institutions include demographic differences as discussed in the following paragraphs.

Existing literature suggests that for-profit students are more likely than students in traditional sectors to be (a) financially independent from their parents and older than the traditional college-going age range, (b) single parents, (c) minority group members, (d) female, (e) first-generation college students, and (f) from disadvantaged economic backgrounds. Importantly, the data obtained from existing literature are based on analyses of all students, not just those seeking bachelor's degrees.

Demographic Differences between Students

Financially Independent from Parents and Older

Most writers suggest that students in the for-profit sector are "less likely to depend on their parents for financial support" (e.g., Kinser, 2006, p. 69). In fact, much of the for-profit sector growth spurt has been attributed to its ability to meet the needs of these students (Sperling & Tucker, 1997). Prior to World War II, college students were

considered to be under the care of their parents except when away at school, in which case their colleges were considered their guardians (Tierney & Hentschke, 2007).

However, the G. I. Bill enacted during World War II significantly changed this dynamic, as it subsidized the educational costs of returning war veterans, thereby encouraging them to postpone employment (Tierney & Hentschke, 2007). Undoubtedly, most of these veterans were adults far removed from being under the care of their parents; hence, their arrival signaled the end of higher education as the sole domain of late adolescents. In similar fashion, non-veteran adult learners, supported by funding programs similar to the G. I. Bill, also increased their presence in higher education (Andrew & Russo, 1989).

Pointedly, a number of them enrolled in for-profit colleges and universities whereas the majority of younger students favored traditional colleges and universities (Kinser, 2006). In fact, students older than the traditional 18-to-22-year-old age group still represent a significant portion of for-profit enrollments (Tierney & Hentschke, 2007). Particularly, "about 65 percent are 25 years and older, whereas just 31 percent of those at four-year public colleges are, and 40 percent of those at two-year colleges are" (Deming et al., 2012, p.146).

In conclusion, students in the for-profit sector are likely to be older adults, whereas students in nonprofit sectors, with the exception of the public two-year sector, are likely to be late-adolescents. Published NCES data support this conclusion. For example, a 2010 report indicated that among the for-profit undergraduate students in the 2007-2008 academic year, 34.4% were over the age of 30. In comparison, 30.2% of

students in the public two-year sector, 18.1% of students in the public four-year sector, and 11.6% of students in the private nonprofit four-year sector were over 30 (Staklis & Chen, 2010). Furthermore, the same report revealed that only 23.9% of students in the for-profit sector were financially dependent on their parents. In comparison, 43.5% of students in the public two-year sector, 69.1% of students in the public four-year sector, and 66.7% of students in the private nonprofit four-year sector were considered financially dependent.

Independent Single-Parents

If most for-profit college and university students are older adults who begin attending college past the traditional 18-to-22-year-old age range, it stands to reason that many have children of their own (Kinser, 2006). Following this further, the literature notes that the for-profit sector overwhelmingly enrolls the highest percentage of single parents (Deming et al. 2012, Table 1), a demographic group facing challenges. For example, independent single-parent students face the same financial pressures as married students with dependents, yet they do so with a single income. In addition, since they are preoccupied with work, spending time with children, and studying, they rarely have time for partners or friendships (Hinton-Smith, 2008).

Educational research categorizes single parenthood as an "at risk" (Guida & Figuli, 2012, p.139) factor that decreases the odds of students persisting towards graduation. In fact, it has been proposed that single-parent students face the most obstacles to persistence among all the at-risk groups (Horn, Mazilo & Premo, 1993). Because the for-profit sector enrolls a large proportion of these students (Deming et al.,

2012, Table 1), adjustments must be made. For example, some schools offer child care and other similar services to deter these students from dropping out (Deming et al., 2012). In contrast, most students who attend traditional institutions are still under the care of their parents, and are not far removed from being children themselves (Tierney & Hentschke, 2007). Consequently, the burdens of child rearing do not interfere with their studies, life exploration, and recreational activities.

In short, students at for-profit institutions are more likely to be independent single parents than students in the traditional sectors. This is born out in NCES data summaries. For example, a 2010 NCES statistical analysis revealed that of the undergraduates at for-profit institutions in 2007- 2008, 39% were independent single-parents, compared to 14.4% of public two-year students, 5.7% of public four-year students, and 6.9% of private nonprofit four-year institutions (Staklis & Chen, 2010).

Minorities

Reportedly, the for-profit sector enrolls a student population that is evenly divided between whites and minorities (Ruch, 2001). Accordingly, one report indicates that 51.2% of all beginning first-time students at for-profit institutions (from 2004 to 2009) were either African American or Hispanic (Deming et al., 2012, Table1). In contrast, during this same time period, 29.9% of first-time students at community colleges and 24.4% of first-time students at 4-year public and nonprofit colleges were either African American students or Hispanic students. Thus, for-profit students are more likely than students in other sectors to be non-white, which makes sense because the urban locations of for-profit institutions attract minority students (Grubb, 1993). Other reasons cited for

a high enrollment of minorities at for-profit institutions include "fewer barriers to admission, high placement rates, and the availability of the full spectrum of financial aid" (Ruch, 2001, p. 72).

Indeed, from 2004 to 2009, the percentage of African-American students in for-profit institutions expanded exponentially, thereby giving these students more access to higher education (Guida & Figuli, 2012). However, upon historical reflection, relatively small percentages of minorities have obtained a bachelor's degree, especially among low-income populations. In particular, "among 1980 high school seniors whose family incomes were in the lowest quartile, only 7.7 percent of Blacks and 4.9 percent of Hispanics had attained a bachelor's degree by 1986" (Sperling & Tucker, 1997, p. 23).

Certainly, the percentages are now better; however, the education gap between minorities and whites is still quite large (Guida & Figuli, 2012). Because the business driver behind for-profit institutions is creating access, these schools accept almost applicants (Ruch, 2001). Although critics claim this is done to increase revenue streams (Johnson, 2011), defenders believe it creates access to formerly disenfranchised low-income minorities (Kirp, 2003). Moreover, according to one writer, for-profit institutions create an environment in which minorities maintain their cultural identity (Ruch, 2001). Indeed, in recent decades, the major providers of baccalaureate degrees to minorities have been for-profit institutions. Markedly, many of these conferred degrees have been in lucrative engineering-related fields.

All in all, the for-profit sector enrolls a greater percentage of minorities than other sectors, as supported by NCES data summaries. To further illustrate, in the academic

year of 2007-2008, 53.5% of students who attended for-profit institutions were non-white, compared to 33.6% in the public four-year sector, and 32% in the private nonprofit four-year sector (Staklis & Chen, 2010).

Gender

On the whole, the enrollment for women has been on the rise for all higher education institutions; however, the rise has been more prominent in the for-profit sector (Kinser, 2006). Women have traditionally attended for-profit institutions to hone their professional skills. For example, the Katherine Gibbs School, dating back to 1911, "taught skills such as typing, stenography, and how to comport oneself in a business setting" (Tierney, 2011, p. 1). Today, the majority of women in for-profit sector institutions enroll to improve their skills in fields "such as health professions, personal and culinary services, and business support" (Chung, 2012, p. 1092). Additionally, it was found that women choose for-profit schools because they like the flexible scheduling and quicker completion times, both of which are considered "family-friendly features" (Chung, 2008, p. 20).

Under those circumstances, the ratio of female students to male students appears to be greater at for-profit institutions than traditional institutions. NCES data summaries bear this out as shown among undergraduates in 2007-2008. In that academic year, 68.8% of students who attended for-profit institutions were female. In comparison, 53.9% of students at the public four-year sector, and 56.6% of students at the private nonprofit four-year sector were female (Staklis & Chen, 2010). This correlates to the literature.

First-Generation Students

Without question, the educational attainment of parents is an important factor, as children often emulate their parents. For example, in many working-class households, attending a post-secondary school is perceived as a luxury reserved for the well-to-do (Weis, 2004). Attending college is beyond their scope; hence, after high school graduation they seek employment hoping to leave the education system behind. Later, after finding jobs and beginning families, they realize that they need more income; however, few opportunities exist for job seekers lacking a college degree (Tierney,2011). Under their circumstances, they obviously cannot move into dorms and attend college in the traditional fashion. As a result, many become part of a pool of "first-generation college students" (Schilling, 2013, p.154) who populate the for-profit sector.

To add, many minorities and/or children from low-income families want to be the first in their family history to attend college (Ruch, 2001). Significantly, the for-profit sector enrolls a greater percentage of these students than do other sectors (Kinser, 2006). Unfortunately, this is a demographic group that is prone to drop out, as "their past experiences are unlikely to have prepared them for the new life of the college, in the same way that those of persons who come from families that are themselves college educated" (Tinto, 1988, p. 445). Consequently, the for-profit sector faces retention challenges. Of course, all sectors enroll first-generation students who face retention challenges; nevertheless, these students are most prevalent in the for-profit sector (Chung, 2012, Table 1).

Accordingly, NCES statistical summaries provide evidence that the for-profit sector enrolls the largest percentages of first-generation college students. For example, among undergraduates in 2007-2008, only 21% of students in the for-profit sector reported having a parent with a bachelor's degree. In contrast, 49.5% of students at the four-year public sector, and 52.9% of students at the private four-year nonprofit sector had at least one parent who had earned a bachelor's degree (Staklis & Chen, 2010).

Economic Background

Not surprisingly, for-profit students originate from lower-income backgrounds than students in other sectors (Deming et al., 2012). There are many theories as to why this is so, but one theory suggests that aggressive for-profit recruiters find low-income students and introduce them to the benefits of financial aid (Lynch, Engel & Cruz, 2010). In fact, financial aid perplexes some prospective students because it involves intricate and complicated documents (Morris, 1993). With this in mind, for-profit admission representatives, armed with patience and resolve, spend the necessary time to educate prospective students (see e.g., DeVry University, n.d.). On the other hand, overburdened admission representatives at many traditional colleges and universities are less inclined to have the time, patience, or inclination to explain financial aid minutiae (Kirp, 2003).

As a result, prospective students find refuge at for-profit schools where they feel welcomed (Wilson, 2010). Although critics define recruiters as overly aggressive, proponents claim that aggressive recruiting has merit, because some graduates of the for-profit sector report that they are grateful for the extra prodding to get them " in the door and into a new career" (Ruch, 2001, p. 97). All things considered, for-profit institutions

enroll significantly more students from low-income backgrounds than do traditional sectors.

Once again, NCES data summaries support this conclusion, as indicated in the academic year of 2007-2008, in which 51% of for-profit sector students were considered below 150% of the poverty level (Staklis & Chen, 2010). In comparison, 30.6% of students in the public two-year sector, 24.2% of students in the public four-year sector, and 20.9% of students in the four-year private nonprofit sector were classified into this low-income category.

In the final analysis, students who attend for-profit institutions tend to be more diverse than students at traditional sectors. Overwhelmingly, for-profit institutions enroll the greatest percentage of students who are financially independent from their parents. Furthermore, for-profit institutions enroll the greatest percentage of students who are minority, female, first-generation, and from disadvantaged economic backgrounds. Equally important, students who attend for-profit institutions differ from their nonprofit counterparts in regard to the criteria that they use to choose their institutions.

Differences in How Students Choose Institutions

"As the for-profit educational sector has been growing at a spectacular pace, it still remains a puzzle why the students choose for-profit colleges" (Chung, 2012, p. 1084). Notably, most writings suggest students at for-profit institutions choose their institutions based on different criteria than do students at traditional sectors. Generally, this may be explained by how they view higher education. For example, students in the for-profit sector are career-focused, and simply view higher education as a pathway to

find a better paying job (Wilson, 2010). Consequently, they lack interest in non-essential amenities such as attractive campuses, health clubs, and competitive sports teams (Tierney & Hentschke, 2007). In fact, students at for-profit institutions desire marketable skills that can be applied quickly, whereas traditional students seek more esoteric benefits. As explained below, for-profit students select their institutions based on practical criteria such as costs, access, convenience, location, customer service, curriculum and teaching, and time to degree.

Costs

Because private for-profit colleges and university students are likely to come from economically disadvantaged families, it might be assumed that cost would be their primary concern. Ironically, this appears to not be the case, as the cost of attaining a for-profit degree is not inexpensive (Clark, 2011). For example, in academic year 2010-11, the average cost of tuition and fees for all for-profit 4-year institutions was $15,700 compared to an average tuition and fee cost of $6,752 (in state) for 4-year public institutions (Knapp et al., 2011, Table 3). The average tuition and fee cost for a 4-year private nonprofit institution was $21,966 that year; therefore, the cost of a for-profit 4-year education was somewhere between the cost of a public 4-year education, and the cost of a 4-year nonprofit education.

Apparently, private for-profit sector colleges and universities charge higher tuition and fees than public institutions, yet they still manage to capture a significant student market share (Knapp et al., 2011, Table 6). Therefore, tuition costs weigh less during the college choice process for students at for-profit institutions than it does for

those at traditional institutions. Given that, other factors influence school choice decisions as explained below.

Ease of Access

As previously mentioned, prestigious traditional colleges and universities attract more applicants than they have spots to fill (e.g., University of Illinois, 2015). As a result, their selection committees can afford to be selective; therefore, they choose only students they believe have the best chances to succeed (Tierney, 2011). To determine who these students are, traditional colleges and universities often put their applicants through a grueling screening process, which includes standardized testing, written essays, and referral letters (e.g., DePaul University, n.d.).

On the other hand, for-profit colleges and universities are proactive in their recruitment, and reportedly enroll any high school graduate who can pay (Ruch, 2001). Thus, the application process is customer-service oriented and fairly simple. (Wilson, 2010). As a result, the objective is to sell potential students on the "worth of the product, explain the financing that will enable them to attain it, and get them to sign up. Courses may begin in a couple of days" (Tierney, 2011, p. 2). Certainly, many adult students with multiple responsibilities and tight time schedules appreciate this sense of urgency (Wilson, 2010).

Convenience and Location

Similarly, many students view the requirements, procedures, and services of traditional colleges and universities as impractical and burdensome; instead, they prefer the customer-focused versions offered by private for-profit institutions (Wilson, 2010).

Unquestionably, students with jobs cannot wait in long lines and attend classes at the convenience of their school (Morey, 2004). To that end, class schedules in the for-profit sector accommodate the time availability of students, whereas traditional colleges and universities schedule classes to fit their own needs. For example, if a course is full at traditional institutions, students often must wait another term to take the course. Under the same circumstances in the for-profit sector, institutions simply add another section (Wilson, 2010).

By the same token, location is an important aspect of attracting customers to the for-profit sector. Consequently, most land-based campuses are set up with easy access in mind. For instance, campuses usually consist of small office buildings near shopping centers and freeway ramps. Parking spaces are plentiful and near destinations; as a result, students rapidly find the services they need, and quickly get back to their lives (Morey, 2004). In contrast, traditional institutions often contain sprawling campuses that are difficult to navigate (e.g. Illinois State University, n.d.)

However, sprawling campuses rarely create an obstacle to students who live on campus; rather it presents an opportunity to intermingle with friends, converse on cell phones, or read announcements on the campus bulletin board. At the same time, the employed students who attend for-profit colleges and universities do not have this time to spare; in fact, they often prefer schools where all facilities are located on the same block (Wilson, 2010). Given these points, it appears evident that students frequently select for-profit institutions for the sake of convenience (Morey, 2004).

In regard to convenience, NCES data summaries do not address this criterion; however, other research indicates that convenience (as well as location) is a top priority for low-to-moderate-income, older students. For example, a National Postsecondary Education Cooperative report (MacAllum, Glover, Queen, & Riggs, 2007) summarized the results of a focus group study in which currently enrolled students were asked to rank their college choice priorities. Students who were categorized as older and of low-to-moderate income claimed that convenience and location (where classes are offered and when) were their top priorities, while costs and financial aid were secondary priorities. The study did not delineate by educational sector; however, the for-profit sector currently enrolls a large percentage of low-income older students (Guida & Figuli, 2012), thereby giving relevance to this study.

Customer Service

Underfunded and understaffed student affairs offices, located at some public institutions, sometimes provide little or no help to uninitiated students (Kirp, 2003). Even so, students often receive guidance from parents who have been through the process themselves, or from on-campus friends (Tinto, 1988). As mentioned before, many students at for-profit institutions are first-generation college students; therefore, their parents have no experience in handling such matters. For this reason, they need the friendly guidance that employees at private for-profit institutions are trained to provide (Schilling, 2013). In fact, the for-profit sector offers the same customer service philosophy employed in the banking and grocery store industries: “convenient,

accessible, high quality for low costs, open during the evenings and on weekends, and have helpful staff, available parking, and no waiting in long lines" (Morey, 2004, p. 135).

Curriculum and Teaching

Besides friendly service and assessable locations, many private for-profit colleges and universities develop non-traditional teaching methods and curricula. For example, the University of Phoenix has developed a curriculum that is considered "streamlined" or "no frills" (Morey, 2004, p. 137). The classes meet once a week for four hours and courses are completed in five to six weeks. Not surprisingly, critics claim this dilutes instruction for the sake of expediency (Potts, 2005). In its defense, the University asserts that time spent discussing the theories of others is replaced by students drawing upon their own work experiences, and applying these experiences to the classroom.

Understandably, this pedagogy is not applicable to classrooms in traditional sectors. Since most of their students have scant work experience, class time is better spent discussing theory. On the other hand, students in the for-profit sector perceive theory as a waste of time. This was observed at a DeVry University classroom, when an observer witnessed students paying no attention towards a general education theory lecture. Later, the same students took notes vigorously and paid strict attention to technical information that pertained to jobs that they hoped to obtain (Kirp, 2003).

To illustrate further, many for-profit classrooms emphasize practical teaching as opposed to text-book teaching (Schilling, 2013). Students work in teams, and draw knowledge from each other; thus, instructors serve only as coaches or facilitators (Morey, 2004). Moreover, teachers have very little input into the curriculum, as lesson plans are

pre-prepared modules, with pre-prepared outlines. In effect, students know the first day of class what their assignments are, and when they are due, hence their syllabi essentially become task lists (Ruch, 2001). .

By the way, in some for-profit schools, all departments use the same syllabi format, thus serving to minimize confusion across the curriculum. Critics of this uniformity describe it as the "McDonaldization" of education (Lane & Kinser, 2012). They feel that instructors lose their creative freedom, and students fall into a mental rut. To answer this criticism, proponents claim that this frees up time for both instructors and students to concentrate on their primary tasks of teaching and learning (Ruch,2001). Regardless of view, most adult learners in for-profit institutions appreciate any methods that minimize their time constraints (Wilson, 2010).

In addition, it should be noted that if for-profit colleges want to add a new course or change curriculum they do not need to await state appropriations or gain the approval of campus allocation committees. Consequently, students in the for-profit sector are more likely than their traditional counterparts to acquire updated, applicable work skills. For example, DeVry University changes its curriculum to adapt to the needs of AT&T, GTE, and Philip Morris (Morey, 2004). Certainly, this type of employer-focused curriculum impresses students who seek to upgrade their employment status. Hence, they choose for-profit schools that who focus on career advancement.

Time to Degree

Not surprisingly, shorter completion time is a factor that sways students towards for-profit institutions. For example, students who are career focused, and not education

focused, perceive general education courses as useless delays (Breneman et al., 2006); consequently, they prefer for-profit institutions that offer "vocational preparation for a specific job" (Persell & Wenglinsky, 2004, p. 340). In the same vein, one major for-profit institution "gives academic credit for life experience" (Morey, 2004, p. 137), a time saving option rarely offered to students at traditional institutions.

Similarly, four-year institutions in the for-profit sector offer degrees that take less time to complete than do four-year traditional institutions (Morey, 2004) Indeed, for-profit colleges and universities offer condensed classes with short completion times. For example, as explained above, the University of Phoenix offers courses that "meet weekly for four hours and are five to six weeks in length" (Morey, 2004, p.137). This reinforces a claim that most students at for-profit institutions are in hurry and focus primarily on their careers (Breneman et al., 2006).

Career-Focused Students

In the same vein, a NCES report revealed that 49.9% of beginning students who attended for-profit institutions issuing at least two-year degrees during the 2007-2008 academic year cited the prospects of gaining a job or acquiring occupational skills, as their primary reason for college enrollment. This statistic was compared to 37.0% of all undergraduates (Bersudskaya et al., 2011, Table 4). The same report revealed that 52.1% of students in the for-profit sector reported preparing for a certificate or license as their primary reason for enrolling, compared to 14.4% of all undergraduates. Notably, the same study also revealed that 12.3% of students in the for-profit sector enrolled in programs taught entirely online, compared to 3.7% of beginning students in all sectors

(Table 4). Hence, students in for-profit institutions were found to be the most likely to avoid the on-campus experience altogether, which will be explained in more detail later in the study.

How They Pay for College

Financial Aid

As previously mentioned, for centuries higher education was considered one of the privileges extended to individuals who were lucky enough to be born into wealth (Tierney & Hentschke, 2007). However, legislative changes opened the door to higher education to those of lesser means. For example, amendments made in 1972 to the Higher Education Act of 1965 allowed students at for-profit institutions to apply for government-backed student loans (Johnson, 2011). As a consequence, higher education providers experienced a huge inflow of demand, brought on by an increased volume of students who could pay for their services.

To accommodate the influx, traditional colleges and universities expanded their campuses, built more dorm rooms, and built larger lecture halls (Ehrenberg, 2002). In contrast, the for-profit sector handled the increasing demand with an alternative strategy. Instead of spending on infrastructure, for-profit institutions directed their resources towards the recruitment of students who could qualify for student aid. Indeed, this strategy has endured throughout the decades, as most students who attend for-profit institutions today are students who qualify for financial aid (Johnson, 2011).

To clarify further, a large portion of students who attend for-profit institutions receive Title IV funding, which is a section of the Higher Education Act of 1965 that

supplies grants and loans to students who otherwise could not afford a college education (Andrew & Russo,1989). To use the academic year of 2009-10 to illustrate, for-profit sector students, while comprising approximately 10% of the student population (Knapp et al., 2011, Table 6), received 20% of the government-backed student aid (McGuire, 2012. p.120). Among students who received Title IV funding, the neediest of these students received Pell Grants, which, unlike loans, do not need to be paid back (US. Department of Education, n.d.). Again, the for-profit sector led all sectors. For example, during the academic year of 2008-2009, 74.5% of for-profit higher education undergraduate students received Pell Grants, as compared to 40.1% of all undergraduates (Bersudskaya et al., 2011, Table 2).

Loans

Similar to grants, undergraduates at for-profit institutions receive the most loans. Factoring in the low income of many for-profit college students, and considering the average annual tuition price of approximately $14,500 (Knapp et al., 2011, Table 3) and the annual $5,500 Pell grant limit (U.S. Department of Education, n.d.), grants do not cover all the costs. Consequently, for-profit students borrow proportionately more than students at traditional institutions. In particular, one study reports that "92% of bachelor's degree recipients from for-profit schools graduate with more than $10,000 in federal loan debt, whereas, only 62% of private nonprofit and 46% of public nonprofit graduates do" (Johnson, 2011, p. 4). These statistics highlight an important issue that will be examined later in the study. Accordingly, default rates are a major concern among interested parties.

Default Rates

This heavy borrowing concerns legislators and educators, because default rates are significantly higher in the for-profit sector (Stewart, 2011). To illustrate, one report points out that the 1 year and 3-year default rates were 10% and 19% respectively in 2007-08. "These default rates are about twice as high as the rates of students at public and private nonprofit colleges" (Lynch et al., 2010, p.6).

Hypotheses

In summary, the literature indicates that undergraduates at for-profit institutions differ from undergraduates in traditional institutions along four dimensions. The first difference relates to academic preparation and background. As described above, the literature on students at for-profit institutions indicates that they arrive with weaker academic backgrounds than do students in traditional sectors. Employing relevant variables in the National Postsecondary Student Aid Study and the Beginning Postsecondary Student Longitudinal Study data datasets, I tested the following hypotheses. Importantly, these hypotheses relate only to bachelor's degree-seeking undergraduate at four-year institutions.

1. Undergraduates at for-profit institutions are more likely than those at traditional institutions to have earned low grade point averages while in high school.
2. Undergraduates at for-profit institutions are less likely than those at traditional institutions to have taken advanced placement courses while in high school.
3. Undergraduates at for-profit institutions are more likely than those at traditional institutions to have earned a GED or other high school equivalency.

4. Undergraduates at for-profit institutions are less likely than those at traditional institutions to have taken college-level courses while in high school.
5. Undergraduates at for-profit institutions are less likely than those at traditional institutions to have taken high-level math courses while in high school.
6. Undergraduates at for-profit institutions are more likely than those at traditional sectors to have earned low-level entrance exam scores.

The second dimension relates to demographics. As detailed above, the literature indicates that the for-profit sector contains a higher percentage of minority students than do the traditional sectors. Employing relevant variables in the NPSAS and BPS data sets, I tested the following hypotheses for bachelor's degree-seeking students at four-year public, private nonprofit and for-profit institutions.

7. Undergraduates at for-profit institutions are more likely than those at traditional institutions to be financially independent from their parents (controlled for age).
8. Undergraduates at for-profit institutions are more likely than those at traditional institutions to be financially independent from their parents and to have children of their own (controlled for age).
9. Undergraduates at for-profit institutions are more likely than those at traditional institutions to be both financially independent from their parents and single parents (controlled for age).
10. Undergraduates at for-profit institutions are more likely than those at traditional institutions to be older than 30.

11. Undergraduates at for-profit institutions are more likely than those at traditional institutions to be minorities.
12. Undergraduates at for-profit institutions are more likely than those at traditional institutions to be female.
13. Parents of financially dependent undergraduates at for-profit institutions are more likely than those at traditional institutions have parents who earn in the lower income stratum.
14. Financially independent undergraduates at for-profit institutions are more likely than those at traditional institutions to earn in the lower income stratum.
15. Undergraduates at for-profit institutions are less likely to have checking or savings accounts than those at traditional institutions.
16. Undergraduates at for-profit institutions are less likely than those at traditional sectors to receive help from parents to pay all costs.
17. Undergraduates at for-profit institutions are more likely than those at traditional institutions to be first-generation college students.

The third dimension relates to factors that influence the student's selection of a postsecondary institution. As discussed above, the literature indicates that students who attend for-profit institutions select their institutions based on different choice criteria than do students who attend traditional institutions. Employing relevant data from the NPSAS and BPS datasets, I tested the following hypotheses for bachelor's degree-seeking students only at four-year public, private nonprofit and for-profit institutions.

18. Undergraduates at for-profit institutions are more likely than those at other institutions to view themselves as employees enrolled in school as opposed to students who work (controlled for age).
19. Undergraduates at for-profit institutions are more likely than those at traditional institutions to attend classes on weekends.
20. Undergraduates at for-profit institutions are more likely than those at traditional institutions to enroll in programs that are entirely online.
21. Undergraduates at for-profit institutions are more likely than those at traditional institutions to use location as a school choice criterion.
22. Undergraduates at for-profit institutions are less likely than those at traditional institutions to use affordability or financial reasons as a school choice criterion.

The fourth dimension relates to how students pay for their education. As detailed above, the literature indicates that students in the for-profit sector are more likely than students in traditional sectors to use financial aid. Employing relevant variables from the NPSAS and BPS datasets, I tested the following hypotheses for bachelor's degree-seeking students only at four-year public, private nonprofit and for-profit institutions.

23. Undergraduates at for-profit institutions are more likely than those at traditional institution to accumulate large student loan debt loads.
24. Undergraduates at for-profit institutions are more likely than those at traditional institutions to continuously use Pell grants.
25. Undergraduates at for-profit institutions are more likely than those at traditional institutions to apply for any type of federal aid.

26. Undergraduates at for- profit institutions are less likely than those at traditional institutions to receive financial help from parents to pay for tuition and fees.

CHAPTER III

METHODS

Introduction and Research Questions

As mentioned above, students at for-profit institutions represent approximately 10% of the higher education student population (Knapp et al., 2011, Table 6); thus, they represent a population that cannot be ignored. Significantly, these students characterize a growing population of adult students who differ from the traditional college student stereotype (Tierney & Hentschke, 2007). In fact, many factors distinguish these students from those at traditional institutions. With this in mind, I addressed the following research questions:

1. How do bachelor's degree-seeking undergraduates at for-profit four-year institutions differ from bachelor's degree-seeking undergraduates at traditional four-year institutions in regard to their academic backgrounds and college preparation?
2. How do bachelor's degree-seeking students at for-profit four-year institutions differ demographically from those at traditional four-year institutions?
3. How do bachelor's degree-seeking students at for-profit four-year institutions differ from those in traditional four-year institutions in terms of factors that influence college choice?

4. How do payment methods for college differ between bachelor's degree-seeking students at for-profit four-year institutions and those at traditional four-year institutions?

Sources of Data

I conducted a secondary analysis of two NCES databases. The first is the National Postsecondary Student Aid Study (http://nces.ed.gov/surveys/npsas/), a recently compiled dataset based on a nationally representative sample of undergraduates attending U.S. colleges and universities in 2012. The second is the Beginning Postsecondary Student Study (BPS), which examined the characteristics and experiences of first-time postsecondary students. Specifically, BPS examined students who began their postsecondary educations in 2003-04 and who were followed up three and six years later. In the final analysis, data from these two datasets were employed to test hypotheses that addressed how bachelor's degree-seeking students at for-profit institutions differ from those at traditional sectors. Each data set is described below.

National Postsecondary Students Aid Study (NPSAS)

The US Department of Education defines the NPSAS as "a comprehensive, nationwide study to determine how students and their families pay for post-secondary education" (Wine et. al., 2104, p. iii). The NPSAS study collected information from students including data on their family history, demographics, and work experiences. NPSAS researchers have conducted similar studies in the past; however, the 2012 version collected data on undergraduate students in the academic year of 2011-12.

Data were collected using three methods. First, participating institutions submitted lists of eligible students to a secure NPSAS website. Second, data were gathered from financial aid applications and other historical sources. Third, NPSAS staff used computer-aided telephone systems to survey students (Wine et. al., 2014). The student sample consisted of undergraduate students who were attending institutions that participate in federal financial aid programs across the United States, District of Columbia, and Puerto Rico. Eligible students were enrolled between July 1, 2011 and June 30, 2012 in one of the following:

> (a) an academic program; (b) at least one course for credit that fulfills the requirements for an academic degree; (c) exclusively noncredit remedial course work but determined by the institution to be eligible for Title IV aid; or (d) an occupational or vocational program that required at least 3 months or 300 clock hours of instruction to receive a degree, certificate, or other formal award (Wine et al., 2014, p. 8).

Additionally, to ensure that the samples adequately represented the entire student population, researchers stratified the samples employing two methods. First, they stratified institutions to ensure that each type of institution was proportionally represented. For example, institution samples included a proportional amount of Hispanic-serving institutions, historically Black colleges and universities, small institutions, and large institutions.

In similar fashion, researchers divided the institutions into public institutions, private nonprofit institutions, and for-profit institutions and then further subdivided these

categories. For example, for-profit institutions were subdivided into less-than-2year, 2-year, and 4-year categories and public institutions were subdivided into less-than-2-year, 4-year non-doctorate-granting, and 4-year doctorate granting. For student samples, researchers targeted a certain number of students in each category to ensure that each stratum was represented according to the percentage of students that each contained (Wine et al., 2014, Table 2).

For example, 2-year public institutions contained a large proportion (50%) of the public institutional sample (see Wine et al., 2014, Table 2); consequently, 41,310 of the total target of 126,650 students were 2-year public institution students. On the other hand, public less-than-two year institutions enrolled a small proportion of the student universe; thus, only 1,280 of its students were included in the NPSAS study (see Wine et al., 2014, Table 4).

Second, students were stratified based on classifications defined as (a) first-time beginning students in certificate programs, (b) other first-time beginning students, (c) other undergraduates and (d) graduate students (see Wine et al., 2014, Table 6). Accordingly, researchers targeted a particular number of students (based on the proportion of total) to ensure that each type of student was represented. For example, 54,550 of the total 124,650 were targeted to be other undergraduates.

One of the major concerns of a complex study such as NPSAS is the reliability and validity of the data (Creswell, 2009). With this in mind, NCES activities are designed to

> provide consistent, reliable, complete, and accurate indicators of education status and trends; and report timely, useful, and high quality data to the US Department of Education, the Congress, the states, other education policymakers, practitioners, data users, and the general public" (Wine, et al., 2014, Introduction para. 2).

Accordingly, NCES employed tactics to ensure the reliability and quality of the data. Reliability may be defined as the consistency or repeatability of the results. In other words, a reliable study is one where, if repeated, the results would be similar to original study (Creswell, 2009). For example, as part of the 2008 NPSAS study, NPSAS researchers re-interviewed some of the students and ran correlations to determine if the results of the repeat interview resembled the results of the original study.

> A subsample of eligible sample members who completed the interview was randomly selected to participate in a reliability reinterview. Students selected for the reinterview were informed of their selection at the end of the initial interview and invited to participate in the subsequent reinterview (Cominole, Riccobono, Siegel, Caves, & Rosen, 2008. p.79).

If the repeat interview revealed inconsistencies from the original interview, the questions were reevaluated and reworded. For instance, when students were asked to give the main reason that they attended their NPSAS institutions, only 60% of them gave the same response as they did during the original interview (Cominole et al., 2008, Table 43). Consequently, questions such as this one were reconstructed or reworded to increase the

likelihood that students submit reliable answers. Consequently, the 2012 study benefited from changes made to the 2008 NPSAS study.

In addition, NPSAS staff implemented procedures to ensure that the results of the study were valid. Validity can be defined as the accuracy or credibility of the results of a study (Creswell, 2009). To ensure credibility, the NPSAS staff conducted quality checks throughout the process. For example, enrollment lists provided by participating institutions were checked for quality. In fact, "once staff received a student list, they performed several checks on the quality and completeness of the list before selecting the sample students" (Wine et al., 2014, p. 28).

Moreover, measures were taken to compensate for factors that could lead to unreliable data. One of the challenges with employing complex samples such as this is the possibility that estimates represent the sample but not the entire student population (Thomas & Heck, 2001). Thus, adjustments were implemented after data was collected to ensure that the results represented the entire higher education student population. For instance, the student sample size from one institution could not exceed 300 students or could not be less than 10 students (Wine et al., 2014).

To further illustrate, some institutional strata did not reach the targeted number of student responses; therefore, the responses of students who did respond were adjusted or given more weight. For example, only 37,000 (89.6%) of the 41,310 students targeted in the public 2-year sector responded (see Wine et al., 2014, Table 4). Accordingly, their responses were given a weight (approximately 1.12) to compensate for the non-responders. In similar fashion, weights adjusted for other factors that could lead to

unreliable data factors such as non-responses to particular questions and students who attended more than one institution.

Despite attempts to present reliable, high-quality data, there are limits to the NPSAS study. As mentioned above, the study consisted of quantitative analysis and therefore lacked the advantages of qualitative inquiry. Although relevant literature offers probable reasons why students attended for-profit institutions instead of traditional institutions (e.g., Wilson, 2010), it was sometimes difficult to match these reasons to the variables found the NPSAS data sets. For example, no specific NCES variable matched an assertion in the literature that claimed students choose for-profit institutions to avoid the cumbersome admission requirements at traditional institutions (Tierney, 2011).

In addition, if the 2010 for-profit sector growth rate (Johnson 2011) continued into 2011, some of the demographics may have changed as the data were being collected. Indeed, the time between data collection and the end of the academic year created a situation where some of the information was outdated (Wine et al., 2014). Consequently, this limited the accuracy of some of the results. Nevertheless, conclusions of the study were based on estimation; therefore it was felt that exact precision was not necessary.

Beginning Postsecondary Students Longitudinal Study (BPS)

The BPS study collected data from approximately 16,700 students (Beginning Postsecondary Students, n.d., para. 3) who enrolled as first-time beginning college students and were interviewed at the following three points: (a) the end of their first year, (b) after three years of study, and (c) six years after their start year. Surveys were web-based and self-administered. "The study collects data on student persistence in, and

completion of, postsecondary education programs, their transition to employment, demographic characteristics, and changes over time in their goals, marital status, income, and debt, among other indicators" (BPS, n.d., "About PBS section" para. 1) Similar to the NPSAS study, data were collected using information from institutional records and administrative databases coupled with student interviews. In fact, the BPS data were drawn from the NPSAS dataset thereby making the BPS data set a subset of the NPSAS data set (Wine & Riccobono, n.d.).

One of the main concerns of a study as complex as the BPS study is missing information caused by students who do not respond. Among the probable causes of non-responses were the increased use of cell phones (and decreased use of landline phones). Accordingly, response rates were difficult to monitor and missing information was difficult to obtain (Wine & Riccobono, n.d.) To correct this problem, additional techniques were employed to increase student response rates including follow-ups with email and post cards, $30 incentives, and person-to-person interviews. Techniques such as these led to a respectable 80.2% response rate in 2009 (Wine & Riccobono, n.d.).

In addition, researchers implemented quantitative methods to compensate for missing information. For example, an imputation process aligned missing information caused by non-responses to certain questions to responses given by respondents with similar characteristics (Wine et al., 2014). In other words, if students did not answer a particular question, researchers filled the answers for them based the answers of similar students.

And similar to the NPSAS study, frequent monitoring, help desks, debriefing, and quality circles helped to maintain the quality and validity of the BPS data. (Wine, Janson, & Wheeless, 2011) However, unlike the NPSAS study, the samples included only first-time beginning students. "The target population (or universe) for the BPS:04 cohort consisted of all students who began their postsecondary education for the first time during the 2003-04 academic year at any postsecondary institution in the United States or Puerto Rico that was eligible for NPSAS:04" (Wine et. al., 2011, p. 5).

However, the first follow-up study conducted in 2006 revealed that approximately 1,370 of the students interviewed in 2004 may not have been first-time beginning students (Wine et al., 2011). Consequently, a possibility exists that the results reflect students who were not first-time beginning students (i.e., false positives). However, these 1370 students deemed to possibly be false positives were re-screened in 2006 to ensure that they were indeed first-time beginning students, thereby adding to the reliability of the study.

In short, both the NPSAS study and the BPS study took steps to ensure the reliability and validity of their results. Steps to ensure reliability included repeat interviews, assigning weights to compensate for missing information, alerting researchers to large standard errors, and follow-up checks to ensure that the students who are responding correlate with the students who are supposed to be responding. Steps to ensure validity included all the quality checks mentioned above along with the continuous improvement techniques that continued from study to study. Thus, procedures set in place to monitor the quality of the research results.

Study Procedures

Employing relevant variables from both the NPSAS dataset and the BPS dataset, a series of cross-tabulations was employed to test the study's hypotheses. The cross-tabulations were constructed using the online PowerStats program maintained by the National Center for Education Statistics and made available at the following NCES website: http://nces.ed.gov/datalab/powerstats/dataset.aspx.

The distinct advantage of PowerStats is that it gives researchers an ability to create customized tables by only cross-tabulating variables that are of particular interest to their study. For example, if researchers want to know the percentage of females who received student loans they simply cross-tabulate the variables of gender and student loans to create customized tables. The resulting tables provide percentage breakdowns as well as numbers (n's) that allow for the subsequent calculation of chi-square values (discussed below).

Table 1 lists the hypotheses that were tested and notes, for each hypothesis, the NPSAS or BPS variable used in the cross tabulations, as well as the control variables (if any) that were introduced. The Appendix contains tables with descriptive statistics, chi-squares, and effect sizes for several study variables. Moreover, Tables 2-5 in the next chapter provide summaries of information provided in the more detailed Appendix tables.

Significance Testing

After cross-tabulations were constructed, tests were employed to determine the probability that student differences were real and not based on chance alone. The need for further testing becomes apparent when one considers the possibility of false

conclusions. For example, suppose that statistical analysis revealed that among those seeking a bachelor's degree, proportionately more females attend for-profit institutions than traditional institutions. One might be tempted to conclude that women preferred the for-profit sector. However, this conclusion would be presumptuous if further analysis revealed that women outnumber men in all higher education sectors. In that case, more analysis would be needed to determine whether or not women prefer the for-profit sector.

With this in mind, I went beyond prima fascia discovery. I employed chi-square tests to confirm that the differences between students at for-profit institutions and those at traditional institutions were not the result of chance alone (Gravetter & Wallnau, 2009). As an illustration, cross-tabulations that compared students seeking a bachelor's degree at for-profit institutions to those at public institutions revealed that proportionally more students at for-profit institutions attended weekend classes (see Table A19.1). Following this further, chi-square tests confirmed that the observed frequencies of weekend attendees were significantly different from expected frequencies.

To explain, observed frequencies represent the actual proportions of students who attend weekend classes, whereas expected frequencies represent the proportions under the assumption that students are equally likely to attend either sector. Since the N values for this cross-tabulation were large (as they were all cross-tabulations), the .001 level of significance was used. In essence, the results of the chi-square tests indicate the probability that differences between sectors were real differences and not based on chance alone, with a .001 probability of error.

The chi-square statistics were calculated through the use of on online calculator supplied by VassarStats (VassarStats, n.d). Specifically, N values (copied from the cross-tabulations) were entered onto cells located on VassarStats spreadsheets. From these N values, chi-square statistics and *p* values were calculated and copied to tables located in the Appendix. Due to the large sample sizes, all hypotheses testing results were found to be statistically significant to the .001 level. Consequently, when cross-tabulations revealed differences across sectors, the effect of sector on these differences was statistically significant in all cases. However, a "significant effect does not necessarily mean a large effect" (Gravetter & Wallnau, 2009, p.626). Hence, to report the magnitude of the effect, effect sizes were also calculated on the VassarStats spreadsheets and subsequently copied to the Appendix tables.

To measure the effect sizes, phi coefficients were calculated. As Gravatter & Wallnau (2009) stated "Because phi is a correlation, it measures the strength of a relationship, rather than the significance, and thus provides a measure of effect size." (p. 626). Furthermore, phi defines effect size as the action when the variable employed to make comparisons is divided into two categories. For example, when gender is compared across sectors, Phi defines effect size because gender is divided into two categories (male and female). However, when the variable employed for comparison contains more than two categories, Cramer's V defines the effect size. For example, age is divided into three categories (19–23, 24–29, => 30); thus, Cramer's V defines the effect size for age. Generally, a coefficient of .10 is considered a small effect; .30 is considered a medium effect; and .50 is a large effect (Gravetter & Wallnau, 2009).

In summary, statistical testing beyond cross-tabulations was completed to ensure that derived differences between students at the for-profit sector and the traditional sectors were not the result of chance alone. One such testing method employed was chi-square testing that determined whether or not the observed frequencies were significantly different from expected frequencies. Finally, effect sizes were computed to determine the relative strength of association between variables.

Table 1 *Variables Used to Test Hypotheses*

Hypothesis	Database	Variable name	Variable label	Variable type	Control variable?
Academic Preparation and Background					
1. Undergraduates at for-profit institutions are more likely to have earned lower grade point averages while in high school	Beginning college students: 2004-2009	HCGPAREP	High School Grade Point Average (GPA)	Categorical (2.00-2.9, 3.0-4.0))	
2. Undergraduates at for-profit institutions are less likely to have taken advanced placement courses while in high school.	All Undergraduates, 2012 (NPSAS)	HSCRDAP	Took AP courses while in high school	Categorical (yes, no)	
3. Undergraduates at for-profit institutions are more likely to have earned a GED or other high school equivalency	Beginning college students: 2004-2009	HSDEG	High school degree type	Categorical (GED or other equivalency, High school diploma)	
4. Undergraduates at for -profit institutions are less likely to have taken college-level courses while in high school	All Undergraduates, 2012 (NPSAS)	HSCRDCOL	Took college-level course while in high school	Categorical (yes, no)	
5. Undergraduates at for-profit institutions are less likely to have taken high-level math courses while in high school	Beginning college students: 2004-2009	HCMATH	Highest level of high school mathematics	Categorical (Trigonometry/ Algebra II, Pre-calculus or above)	
6. Undergraduates at for-profit institutions are more likely to have earned low-level entrance exam scores	Beginning college students: 2004-2009	TESATDER	Admission test scores (ACT or SAT)	Categorical (Lowest-400-840, Middle to high-841-1600)	

Hypothesis	Database	Variable name	Variable label	Variable type	Control variable?
Demographic Differences between Students					
7. Undergraduates at for-profit institutions are more likely to be financially independent from their parents (controlled for age)	All Undergraduates, 2012 (NPSAS)	DEPEND	Dependency status	Categorical (Dependent, Independent)	Age as of 12/31/2011 (X <= 24)
8. Undergraduates at for-profit institutions are more likely to be financially independent from their parents and to have children of their own (controlled for age)	All Undergraduates, 2012 (NPSAS)	DEPEND2	Dependency status (3 categories)	Categorical (Dependent, Independent without dependents, Independent with dependents)	Age as of 12/31/2011 (X <= 24)
9. Undergraduates at for- profit institutions are more likely to be both financially independent from their parents and single parents (controlled for age)	All Undergraduates, 2012 (NPSAS)	SINGLPAR	Single parent independent student	Categorical (Not a single parent, single parent)	Age as of 12/31/2011 (X <= 24)
10. Undergraduates at for-profit institutions are more likely to be older than 30.	All Undergraduates, 2012 (NPSAS)	AGE	Age as of 12/31/2011	Categorical (19-23,24-29,30 or older)	
11. Undergraduates at for-profit institutions are more likely to be minorities	All Undergraduates, 2012 (NPSAS)	RACE	Race/ethnicity	Categorical (White, Black or African American, Hispanic or Latino)	
12. Undergraduates at for-profit institutions are more likely to be female	All Undergraduates, 2012 (NPSAS)	GENDER	Gender	Categorical (Male, Female)	
13. Parents of financially dependent for-profit sector undergraduates are more likely to earn in the lower income stratum	All Undergraduates, 2012 (NPSAS)	DEPINC	Dependent students: Parent's income	Categorical (less than $30,000,$30,000-$64,999,$65,000-$105,999)	
14. Financially independent undergraduates at for-profit institutions are more likely to earn in the lower income stratum	All Undergraduates, 2012 (NPSAS)	INDEPINC	Independent students: student and spouse's income	Categorical(less than $7,499,$7,500-$19,999, $20,000-$41,999, $42,000 or above)	
15. Undergraduates at for-profit institutions are less likely to have checking or savings accounts	All Undergraduates, 2012 (NPSAS)	BANK1	Bank accounts: had checking or savings account	Categorical (yes, no)	
16. Undergraduates at for-profit institutions are less likely to receive help from parents to pay all costs (controlled for age)	All Undergraduates, 2012 (NPSAS)	PARHELP	Help from parents: housing, tuition, and other expenses	Categorical (yes, no)	Age as of 12/31/2011 (X <= 24)
17. Undergraduates at for-profit institutions are more likely to be first-generation college students.	All Undergraduates, 2012 (NPSAS)	PAREDUC	Parent's highest education level	Categorical (High school diploma or equivalent, Associates degree, Bachelor's degree)	

Hypothesis	Database	Variable name	Variable label	Variable type	Control variable?
Factors that Influence Selection					
18. Undergraduates at for-profit institutions are more likely to view themselves as employees enrolled in school as opposed to students who work (controlled for age)	All Undergraduates, 2012 (NPSAS)	JOBROLE	Job: Primary role as student or employee	Categorical (A student working to meet expenses, An employee who decided to enroll in school))	Age as of 12/31/2011 (X <= 24)
19. Undergraduates at for-profit institutions are more likely to attend classes on weekends	All Undergraduates, 2012 (NPSAS	ALTWKND	Alternative course: took classes on the weekend	Categorical(Some, None)	
20. Undergraduates at for-profit institutions are more likely to enroll in programs that are entirely online	All Undergraduates, 2012 (NPSAS	ALTONLN	Alternative courses: proportion of NPSAS classes taken completely online	Categorical (All, some, none)	
21. Undergraduates at for-profit institutions are more likely to use location as a school-choice criterion.	Beginning college students: 2004-2009	RAD04D	Reason attended 2004: location	Categorical (yes, no)	
22. Undergraduates at for-profit institutions are less likely to use affordability or financial reasons as a school choice criterion	Beginning college students: 2004-2009	RAD04C	Reason attended 2004: Affordable or financial	Categorical (yes, no)	

Hypothesis	Database	Variable name	Variable label	Variable type	Control variable?
How Students Pay for College					
23. Undergraduates at for-profit institutions are more likely to accumulate large student loan debt loads.	Beginning college students: 2004-2009	T4XCUM09	Cumulative federal student loan amount owed as of 2009	Categorical ($1.00-9399, $9400-17099, $17,100 or more)	
24. Undergraduates at for-profit institutions are more likely to continuously use Pell grants	Beginning college students: 2004-2009	PELLCONT	Received Pell grant continuously through 2009	Categorical (No Pell grant received, Continuously received Pell grant)	
25. Undergraduates at for-profit institutions are more likely to apply for any type of federal aid	All Undergraduates, 2012 (NPSAS)	FEDAPP	Applied for federal aid	Categorical (yes, no)	
26. Undergraduates at for-profit institutions are less likely to receive financial help from parents to pay for tuition and fees	Beginning college students: 2004-2009	PARHELPD	Help from parents: Pay tuition and fees	Categorical (yes, no)	

CHAPTER IV

ANALYSIS OF THE DATA

Based on the variables listed in Table 1, I constructed cross tabulations that revealed differences between bachelor's degree students at for-profit institutions and those at both traditional sectors. Furthermore, I computed chi-square statistics to verify that these differences were not the result of chance alone, and to determine the magnitude of these differences, I computed effect sizes. The tables on Appendix A display the descriptive statistics, chi square statistics, and effect sizes resulting from cross tabulations for each variable. Tables 2-5 in this chapter summarize the information provided by the tables in the Appendix. Drawing from these results, I explain key findings in order of the research questions below.

Research Question #1

How do bachelor's degree-seeking undergraduates at for-profit four-year institutions differ from bachelor's degree-seeking undergraduates at traditional four-year institutions in regard to their academic backgrounds and college preparation? Results support literature claiming that students at for-profit institutions arrive with less academic preparation than do students at traditional institutions (e.g., Ruch, 2001). Nevertheless, in some instances, cross tabulations reveal that the differences across the sectors were relatively small.

Table 2 summarizes these results comparing bachelors-degree-seeking-students at for-profit institutions with bachelors-degree-seeking-students in the traditional sector according to the percentage who had earned a high school grade point average of 3.0 or higher (vs. below 3.0), the percentage who took advanced placement courses in high school (vs. not taking advanced placement course), the percentage who had earned a high school diploma (vs GED), the percentage of college-level courses completed while in high school (vs. not taking college-level courses), the percentage who took trigonometry or algebra II in high school (vs. pre-calculus vs. trigonometry/ algebra II), and the percentage with middle to high scores on ACT or SAT exams (vs. lower).

High School Grade Point Average (3.0 or Higher vs. Below 3.0)

Hypothesis #1 states that students at for-profit institutions are more likely to have low high school grade point averages (GPAs) than are students at traditional sectors. To test this hypothesis, the variable representing high school grade point averages was subdivided into two categories. The first category (2.0-2.9 high school GPA), was defined as average, while the second category (3.0- 4.0 high school GPA) was defined as above average.

Cross tabulations reveal that 84.14% of students at public institutions and 86.38% at private nonprofit sector institutions earned above-average GPAs (see Table A1). Comparatively, 63.50% of students at for-profit intuitions earned high school GPAs at this level. Consequently, results indicate that for-profit institutions attract a lower, but competitive proportion of students who earned above-average GPAs. Yet, comparing students at for-profit institutions to those at public institutions show proportionally

smaller differences than when making the same comparison to private nonprofit institutions. Effect sizes ranged from .10 to .16 (see Table 2).

Took Advanced Placement Courses in High School (vs. No Advanced Placement Courses)

Nevertheless, cross tabulations in regard to other academic preparation variables exposed larger proportional differences. For example, Tables A2.1 and A2.2 reveal that 42.90% of students at public institutions and 60.94% of students at private nonprofit institutions took advanced placement classes while in high school. In comparison, only 28.24% of students at for-profit institutions took these types of courses. Therefore, it appears that a greater proportion of students at traditional institutions had college in their sights while they were attending high school. The effect sizes for these differences ranged from .18 to .27 (see Table 2).

High School Diploma Earned (vs. a GED)

A large disparity becomes apparent when high school credentials are compared. Specifically, Tables A3.1 and A3.2 reveal that 14.33% of students at for-profit institutions earned a GED or equivalency, compared to 2.74% at public institutions and 3.46% at private nonprofit institutions. The effect size was .21 when comparing the for-profit sector to both traditional sectors. Again, these results provide evidence that bachelor's degrees seeking students at traditional institutions, during their high school years, were more likely to have prepared for college than were those at for-profit institutions. Correspondingly, this holds true when the proportions of students who took college level courses were compared across sectors, although the differences were not as glaring.

College-Level Courses in High School (vs. No College Level Courses)

Cross tabulations that compared the proportions of students who took college-level courses while in high school provide further evidence that bachelor's degree-seeking students at traditional institutions were more college oriented. Specifically, Tables A4.1 and A4.2 show that 16.28% of bachelor's degree-seeking students at for-profit institutions took college-level courses while in high school. This compared to 29.43% and 27.82% of those at public institutions and private nonprofit institutions respectively. Interestingly, Table 2 reveals that the effect sizes for this variable range from .09 to.11; thus, the magnitude of the differences were small.

Math Preparation (Pre-Calculus or Above vs. Trigonometry/Algebra II)

Effect sizes range from .10 to.17 when comparing the math preparation (while in high school) of bachelor's degree-seeking students at for-profit institutions to the math preparation of those at traditional institutions (see Table 2). Cross tabulations indicate that 48.99% of bachelor's degree-seeking students at for-profit institutions completed Pre-Calculus or above as their highest level of math. Comparatively, 73.23% of bachelor's degree-seeking students at public institutions and 77.72% of those at private nonprofit institutions reached this level (see Tables A5.1 and A5.2). Assuming that taking Pre-Calculus or above in high schools prepares students for higher education, these cross tabulations provide further evidence that bachelor's degree-seeking students at traditional institutions were more likely than those at for-profit to have seen college in their sights (while in high school). However, small proportional differences in entrance exam scores reveal that bachelor's degree seeking students at for-profit institutions may possess the same aptitudes to succeed than those at traditional institutions.

ACT or SAT Scores (Middle to High vs. Lowest)

In regard to students who took the SAT or ACT exams, Tables A6.1 and A6.2 reveal that approximately 89% of students at both traditional sectors scored in the middle to high range. However, students at for-profit institutions did not lag far behind, as approximately 68% of them scored in this range. To summarize these findings, Table 2 conveys relatively small effect sizes (.11 to.16) in regard to this variable. Thus, bachelor's degree-seeking students at for-profit institutions who took admission exams received scores that compare favorably (proportionately) to those at traditional institutions although the scoring percentages were slightly lower.

Table 2 *Comparison of Students at For-Profit Colleges with Students at Public Colleges and Private Nonprofit Colleges on Academic Background Variables*

	For-profit colleges (FPCs) vs. public colleges (PCs)				For-profit colleges (FPCs) vs. private nonprofit college (PNCs)			
	$\chi 2$	Sig.	ES	Direction	$\chi 2$	Sig.	ES	Direction
% who earned a high school grade point average of 3.0 or higher vs. below 3.0	8847.95	*	.10	FP < PC	113169.70	*	.16	FP < PNC
% who took advanced placement courses in high school vs. no advanced placement courses	163279.50	*	.18	FP < PC	184357.66	*	.27	FP < PNC
% who earned a high school diploma vs. a GED	284043.00	*	.21	FP < PC	140511.00	*	.21	FP < PNC
% who took college-level courses in high school vs. no college-level courses	41667.94	*	.09	FP < PC	30088.20	*	.11	FP < PNC
% who took pre-calculus vs. trigonometry/algebra II	6580.11	*	.10	FP < PC	9807.04	*	.17	FP < PNC
% scoring middle to high on ACT or SAT vs. lowest	10187.48	*	.11	FP < PC	11941.89	*	.16	FP < PNC

Note. The phi coefficient (φ) was used as a measure of effect size for two-by-two tables. Otherwise Cramer's V was employed.

*$p < .0001$

In summation, although cross tabulations supported all research hypotheses as written, an examination of findings shows that students pursuing a bachelor's degree in the for-profit sector were not as different as we might think from students in the traditional sectors. For example, results indicate that although students who attended for-profit institutions were proportionally more likely to have earned low high school grade point averages (below 3.0), the proportional differences were small. In similar fashion, results indicate that proportionally more students at for-profit institutions scored in the lower category on their ACT or SAT (middle to high vs. lower) than those at traditional institutions, yet again the proportional differences were small.

On the other hand, in regard to some variables, cross tabulations reveal larger differences between bachelor's degree-seeking students at for-profit institutions and those at traditional institutions (although the effect sizes were relatively small). For instance, students pursuing a bachelor's degree at traditional institutions (compared to those at for-profit institutions) were more likely to (a) have taken advanced placement courses while in high school (b) have earned a high school diploma (vs. a GED) and (c) have taken a higher level math course (pre-calculus or above vs. trigonometry/ algebra II).

Research Question #2

How do bachelor's degree-seeking students at for-profit four-year institutions differ demographically from those at traditional four-year institutions? Appendix tables A7.1-A17.2 display descriptive statistics, chi-square statistics, and effect sizes resulting from demographic cross tabulations. Table 3 summarizes these results. Importantly, it is worth noting that cross tabulations that addressed financial dependency and parenthood status controlled for age. To explain, I filtered out students over the age of 24 (for all

sectors) because they are naturally prone to be financially independent from their parents and to have children of their own. Despite this filtering, the cross tabulations produced mixed results that revealed noteworthy differences in regard to some comparisons yet small differences in others. The following paragraphs outline the results in regard demographic cross tabulations.

Financially Independent from Parents (vs. Dependent)

Not surprisingly, results disclose that proportionally more students who were financially independent (vs. dependent) from their parents opted for the for-profit sector. Certainly, the magnitudes of the differences across sectors reveal noteworthy differences. Specifically, 49.25% of bachelor's degree seeking students at for-profit institutions were financially independent compared to 12.40% at public institutions and 8.54% at private nonprofit institutions respectively (see Tables A7.1 and A7.2). Summary Table 3 discloses moderate to relatively large effect sizes of .26 when comparing the for-profit sector to public institutions and .40 when making the same comparison to private nonprofit institutions.

Financially Independent from Parents and Children of Their Own (vs. Independent without Children vs. Dependent)

Cross tabulations in regard to this variable reveal relatively large differences across sectors. To illustrate, 26.20% of students pursuing bachelor's degrees at for-profit institutions carried the dual responsibilities of being financial independent from their parents and raising children of their own (vs. independent without children vs. dependent). Comparatively, 3.12% of those at public institutions and 2.17% of those at

private nonprofit institutions carried these burdens (see Tables A8.1 and A8.2). Explaining significant differences between the for-profit sector and the traditional sectors in regard to this variables, effect sizes range from a moderate .30 to a moderately large .43 (see Table 3).

Single Parents (vs. Not Single Parents)

Single parents face unique retention challenges; in fact, single parents reportedly face the largest obstacles to persistence (Horn et al., 1993). Notably, for-profit institutions enroll a significantly greater proportion of bachelor's degree-seeking students who are single parents (vs. not single parents) than do the traditional sectors. Specifically, single parents (who are financially independent from parents) comprise 17.70% of bachelor's degree-seeking students at for-profit institutions compared to 2.28% at public institutions and 1.49% at private nonprofit institutions (see Tables A9.1 and A9.2). Moreover, in regard to this variable, cross tabulations reveal effect sizes of .21 and .30 when comparing for-profit institutions to public institutions and private nonprofit institutions respectively (see Table 3).

Age (Over the Age of 30 vs. Age of 19-23 vs. 24-29)

Predominately, the literature suggests that older students tend to prefer the for-profit sector (e.g., Kinser, 2006). Correspondingly, findings of this study indicate that 54.82% of students pursuing a bachelor's degree at for-profit institutions were aged 30 or older compared to only 14.13% of those at public institutions and 19.44% of those at private nonprofit institutions (see Tables A10.1 and A10.2). To accentuate this age disparity further, findings reveal effect sizes that range from .43 to .49 when making

cross sector comparisons in regard to this variable (see Table 3). Equally important is the differences in minority status as explained below.

Minorities (Black or African American vs. Hispanic or Latino vs. White)

Moreover, the for-profit sector enrolls proportionately more bachelor's degree-seeking Black or African American students (vs. Hispanic or Latino vs. white) than do the traditional sectors. In fact, the for-profit sector enrolled twice the proportions of bachelor's degree-seeking Black or African American students than did traditional institutions. In detail, 28.53% of bachelor's degree-seeking students at for-profit institutions were Black or African American compared to 14.34% and 14.73% public and private nonprofit institutions respectively (see Tables A11.1 and A11.2).

However, the proportions of bachelor's degree seeking students who are Hispanic or Latino are comparable across sectors. Specifically, the for-profit sector contains 15.50% of these students compared to 15.00% and 11.65% at the public and private nonprofit sectors respectively (see Tables A11.1 and A11.2). In addition, findings disclose that 55.97% of students at for-profit institutions were white compared to 70.66% at public institutions and 73.62% at private nonprofit institutions respectively (see Tables A11.1 and A11.2). Cross tabulations revealed relatively small effect sizes that ranged from .15 to .19 (see Table 3).

Gender (Female vs. Male)

Likewise, existing literature indicates that proportionately more women attend for-profit institutions than attend traditional institutions (e.g., Kinser, 2006). The results confirmed these reports when including only bachelor's degree-seeking students, yet the

proportional differences were not large. In fact, each sector enrolled a larger proportion of females than males. Specifically, females comprised 57.86% of bachelor's degree-seeking students at for-profit institutions, compared to 53.20% at public institutions and 55.84% at private nonprofit institutions respectively (see Tables A12.1 and A12.2). Effect sizes were .04 and .02 when cross tabulating the for-profit institutions with public institutions and private nonprofit institutions respectively, thereby revealing small gender differences across sectors (see Table 3).

Parental Incomes of Dependent Students (<$30,000 Annually vs. $30,000-64,999 vs. $65,000-105,000)

Based on statements in the literature claiming that students at for-profit institutions originate from lower income backgrounds than do students at traditional institutions (e.g., Guida & Figuli, 2012), I compiled cross tabulations that compared the incomes of the parents of financially dependent bachelor's degree-seeking students. Certainly, the results of the cross tabulations confirmed the literature reports. To illustrate, 48.29% of parents to these students at for-profit institutions earned less than $30,000 per year, compared to 30.03% at public institutions and 26.57% at private nonprofit institutions (see Tables A13.1 and A13.2). Summary Table 3 shows effect sizes that range from .20 to .16 in regard to these differences.

Incomes of Financially Independent Students (< $7,499 Annually vs. $7,500-19,999 vs. $20,000-41, 999 vs. => $42,000)

In regard to this variable, cross tabulations reveal small differences across sectors (see Table 3) because financially independent bachelor's degree-seeking students at for-

profit institutions earned comparable incomes (effect sizes ranged from .11 to .08) to those at other sectors. For example, results indicate that 19.34% of financially independent bachelor's degree-seeking students at for-profit institutions earned less than $7,500 per year, compared to 27.26% of those at public institutions and 21.24%% of those at private nonprofit institutions (see Tables A14.1 and A14.2). Thus, the for-profit sector contained a smaller proportion of bachelor's degree-seeking students who earned less than $7,500 per year than did the other sectors.

Students Who Had Bank Accounts (vs. Those Without Bank Accounts)

The proportion of bachelor's degree seeking students with bank accounts (vs. those without bank accounts) reveals that bachelor's degree-seeking students at for-profit institution are more likely to be financially disadvantaged than students at traditional institutions. To illustrate, 15.64% of bachelor's degree-seeking students at for-profit institutions lacked any type of bank account. Comparatively, only 4.19% of those at public institutions and 4.53% of those at private nonprofit institutions lacked back accounts (see Tables A15.1 and A15.2). The effect sizes for these comparisons were .18 and .17 respectively (see Table 3).

Parents Help in Paying All Expenses (vs. No Financial Help)

Surprisingly, each sector enrolled a comparable proportion (effect sizes ranged from .07 to .16) of bachelor's degree-seeking students who received help from parents (see Table 3) to pay all expenses (students < = 24 years of age only). Specifically, 64.30% of bachelor's degree-seeking students at for-profit institutions received parental

help to cover all expenses compared to 78.31% at public institutions and 85.72% at private nonprofit institutions respectively (see Tables A16.1 and A16.2).

Highest Education Level of Parents (Earned Bachelor's Degree vs. High School or Equivalent vs. Associate Degree)

Cross tabulations in regard to this variable supported claims in the literature that students at for-profit institutions have parents with less educational attainment (e.g., Guida & Figuli, 2012). Accordingly, compared to traditional institutions, proportionately more first-generation bachelor's degree-seeking students attended for-profit institutions (effect sizes ranged from .22 to .30). For example, results showed that only 22.15% of bachelor's degree-seeking students at for-profit institutions had parents who earned bachelor's degrees, compared to 49.14% and 50.78% at public and private nonprofit institutions respectively (see Table A17).

Table 3 *Comparison of Students at For-Profit Colleges with Students at Public Colleges and Private Nonprofit Colleges on Demographic Variables*

	For-profit colleges (FPCs) vs. public colleges (PCs)				For-profit colleges (FPCs) vs. private nonprofit college (PNCs)			
	$\chi 2$	Sig.	ES	Direction	$\chi 2$	Sig.	ES	Direction
% who were financially independent from parents vs. dependent	308716.00	*	.26	FP > PC	350672.57	*	.40	FP > PNC
% who were financially independent from parents with children of their own vs. independent without children vs. dependent	420993.81	*	.30	FP > PC	404756.07	*	.43	FP > PNC
% single parents vs. not single parents (independent students only)	208166.43	*	.21	FP > PC	190983.00	*	.30	FP > PNC
% who were over the age of 30 vs. age of 19-23 vs. 24-29	1156715.00	*	.43	FP > PC	777526.00	*	.49	FP > PNC
% Black or African America vs. Hispanic or Latino vs. white	134897.00	*	.15	FP > PC	134897.00	*	.19	FP > PNC
% female vs. male	8495.64	*	.04	FP > PC	1321.54	*	.02	FP > PNC
% parental incomes of dependent students < $30,000 annually vs. $30,000-64,999 vs.$65,000-105,000	24748.04	*	.20	FP > PC	32911.09	*	.16	FP > PNC
% incomes of financially independent students who earned < $7,499 annually vs. $7,500-19,999 vs. $20,000-41,999,vs. => $42,000	29624.97	*	.11	FP < PC	37566.93	*	.08	FP < PNC
% who have bank accounts vs. those without bank accounts	221895.90	*	.18	FP < PC	200525.00	*	.17	FP < PNC
% who received financial help from parents for all expenses vs. no financial help	16213.57	*	.07	FP < PC	46727.33		.16	FP < PNC
% whose parents earned bachelor's degree vs. high school or equivalent vs. associate degree	174983.60	*	.22	FP < PC	156403.50	*	.30	FP < PNC

*p < .0001Note. The phi coefficient (φ) was used as a measure of effect size for two-by-two tables. Otherwise Cramer's V was employed.

In summary, an analysis of the appendix tables indicates that the for-profit sector contains the largest proportions of students along many demographic lines, yet the differences were larger for some variables than others. Variables that indicate moderate or large differences (e.g., effect sizes of .30 or higher) include (a) financially independent from parents (vs. dependent), (b) financially independent from parents and children of their own (vs. independent without children vs. dependent), (c) independent single parents (vs. not single parents), (d) income of dependent parents (< $30,000 annually vs. $30,000-64,000 vs.$65,000-105,000), (e) students with bank accounts (vs. those without bank accounts), and (f) highest education level of parents (earned bachelor's degree vs. high school or equivalent vs. associate degree).

On the other hand, variables that show small differences include (a) race (Black or African America vs. Hispanic or Latino vs. white), (b) gender (female vs. male), (c) incomes of financially independent students (< $7,499 annually vs. $7,500-19,999 vs. $20,000-41,999,vs. => $42,000),-.and (d) parents help (vs. no financial help) in paying all expenses (<= 24 years old). Table 3 summarizes these and other cross tabulations that underscore differences in student demographic characteristics.

Research Question #3

How do bachelor's degree-seeking students at for-profit four-year institutions differ from those in traditional four-year institutions in terms of factors that influence college choice? To answer this question, cross tabulations compared the motivations to attend college between bachelor's degree-seeking students at for-profit institutions and those at traditional institutions. As previously mentioned, the existing literature suggests

that students at for-profit institutions are concerned with convenience and career enhancement when they choose their institutions (e.g., Morey, 2004). Accordingly, their main life focus remains outside the realm of their institutions (Kinser, 2006). Indeed, findings of this study support these suggestions (for bachelor's degree seeking students); however, the differences vary depending on the variable. Appendix tables A18.1-A22.2 display the results and Table 4 summarizes the findings.

Perception of Employee as Primary Role (Employees Enrolled in School vs. Students Who Work)

Controlling for age, Tables A18.1 and A18.2 reveal that 35.43% of students at for-profit institutions perceive themselves as employees enrolled in school (vs. students who work). In contrast, only 7.93% at public institutions and 12.12% at private nonprofit institutions perceived themselves in this manner. Correspondingly, cross tabulations generated an effect size of .24 and .25 when comparing bachelor's degree-seeking students at for-profit institutions to those at public institutions and private nonprofit institutions respectively (see Table 4).

Attending Classes on Weekends (vs. No Classes on Weekends)

The literature also indicates that students opt for the for-profit sector because its institutions offer weekend classes (e.g., Kirp, 2003). Accordingly, results confirmed that bachelor's degree-seeking students at for-profit institutions were more likely than those at traditional institutions to attend some weekend classes (vs. no classes on the weekends). However, the differences across sectors were small. Specifically, cross tabulations indicate that 13.91% of bachelor's degree-seeking students at for-profit institutions

attended classes on weekends. Comparatively, 12.03% of bachelor's degree-seeking students at private nonprofit institutions and 8.42% at public institutions did the same (see Tables A19.1 and A19.2). The relatively small effect sizes summarized in Table 4 (ranging from .08 to .03) reflect these small proportional differences.

Attending Classes Online (All online vs. Some Online vs. None Online)

On the other hand, bachelor's degree-seeking students at for-profit institutions differ substantially from those at traditional institutions regarding online participation. To illustrate, 46.94 % of bachelor's degree students at for-profit institutions took all their courses online (vs. some online vs. none online). In comparison, only 11.3% of those at public institutions and 13.05% of those students at private nonprofit institutions did the same (see Table A20.1 and A20.2). Apparently, bachelor's degree-seeking students at for-profit institutions are more likely than those at traditional institutions to forego the campus experience altogether. The moderately large effect sizes displayed in Table 4 (.39 to .38) reflect this disparity.

Location as a School Choice Criterion (Yes vs. No)

Moreover, the literature indicates that a sizable proportion of students at for-profit institutions view location as a school choice criterion (Ruch, 2001). Cross tabulations support these reports, yet it appears that all sectors enrolled a sizable proportion of bachelor's degree-seeking students who took location into account (see Tables A21.1 and A21.2). In fact, both traditional sectors enrolled slightly higher proportions (compared to the for-profit sector) of students who use location as a choice criterion. To illustrate, 68.30% of bachelor's degree-seeking students at for-profit institutions took location into

account when choosing their institutions. This compared to 78.90% and 72.86% at public and private nonprofit sectors respectively. Thus, location cannot be considered a school choice criterion that separates bachelor's degree-seeking students at the for-profit sector from those at other sectors. Relatively small effect sizes (.05 to .03) displayed in Table 4 confirms this supposition.

Affordability as a School Choice Criterion (Yes vs. No)

Interestingly, Tables A22.1 and A22.2 indicate that 28.50% of students at for-profit institutions considered affordability (or financial reasons) when making their school choices compared to 64.88% at public institutions and 33.52% at private nonprofit institutions who did the same. Consequently, these findings support claims that students at for-profit institutions choose their schools for reasons other than price (e.g., Clark, 2011). However, relatively small effect sizes in regard to this variable that range from .18 to .03 (see Table 4) reveal small proportional differences across the sectors.

Table 4: *Comparison of Students at For-Profit Colleges with Students at Public Colleges and Private Nonprofit Colleges on School Choice Variables*

	For-profit colleges (FPCs) vs. public colleges (PCs)				For-profit colleges (FPCs) vs. private nonprofit college (PNCs)			
	$\chi 2$	Sig.	ES	Direction	$\chi 2$	Sig.	ES	Direction
% who consider themselves employees enrolled in school vs. students who work	150566.00	*	.24	FP > PC	61231.63	*	.25	FP > PNC
% who took some classes on weekends vs. no classes on weekends	23914.16	*	.08	FP > PC	1634.21	*	.03	FP > PNC
% who took all classes online vs. some online vs. none online	561252.00	*	.39	FP > PC	282772.00	*	.38	FP > PNC
% who used location as a school choice criterion (yes vs. no)	1899.71	*	.05	FP < PC	539.17	*	.03	FP < PNC
% who use affordability or financial reasons (yes vs. no)	29325.72	*	.18	FP < PC	561.14	*	.03	FP < PNC

*$p < .0001$

Note. The phi coefficient (φ) was used as a measure of effect size for two-by-two tables. Otherwise Cramer's V was employed.

In summary, examination of the data in both the appendix and summary Table 4 suggest that bachelor's degree-seeking students at for-profit institutions choose their schools based on criteria that differ from those at traditional institutions. Predominately, bachelor's degree-seeking students at for-profit institutions are more likely than those at traditional institutions to (a) view themselves as employees enrolled in school (vs. students who work), (b) take all their classes online (vs. some online vs. none online), and (c) choose their institutions for reasons other than affordability (vs. those who did not). However, examination of the data also indicates that the proportions of bachelor's degree-seeking students at traditional institutions resemble those at for-profit institutions in regard to (a) attending some weekend classes (vs. no weekend classes) and (b) considering location (vs. those who did not).

Research Question #4

How do methods to pay for college differ between bachelor's degree-seeking students at for-profit 4-year institutions and those at traditional 4-year institutions? The literature has indicated that for-profit institutions enroll the largest proportion of students who benefit from federal funding programs (Johnson, 2011). With this in mind, I created cross tabulations to compare the funding sources of bachelor's degree seeking students across higher education sectors. Tables A23.1-A26.2 display the findings of the cross tabulations, and Table 5 summarizes the findings.

Debt Loads ($17,100 or More in Debt vs. $1.00-9,399 vs. $9,400-17,099)

One prevailing belief is that students at for-profit institutions accumulate larger debt loads than students at traditional institutions (Johnson, 2011). Nonetheless, I found

small differences in the percentages of bachelor's degree seeking students who accumulate large debts loads. Indeed, Tables A23.1 and A23.2 reveal that a large percentage (39.02%) of bachelor's degree seeking students at for-profit institutions accumulated debt loads larger than $17,100 (vs. $1.00-9,399 vs. $9,400-17,099). However, findings also indicate that 36.40% of those at public institutions and 48.91% of those at private nonprofit institutions did the same. Hence, all three higher education sectors enrolled an impressive proportion of bachelor's degree-seeking students who accumulated large debt loads. This was reflected by relatively small effect sizes that ranged from .02 to .07 (see Table 5).

Pell Grants (Continuously Used Pell Grants through 2009 vs. Those Who Did Not)

Furthermore, for-profit institutions enrolled proportionately more bachelor's degree-seeking students who continually received Pell Grants than did traditional institutions. As shown in Tables A24.1 and A24.2, 55.27% of bachelor's degree-seeking students at for-profit institutions continually used Pell Grant funds through 2009. By comparison, 24.40% of students at public institutions and 24.26% of students at private nonprofit institutions did the same. The effect sizes in Table 5 confirm that proportionately more students at for-profit institutions continuously received Pell Grants (effect sizes ranged from .15 to .20). It is important to note that Pell Grants do not have to be repaid, and economic need determines the amount of money that students are given (U.S. Department of Education, n.d.). This will be addresses further in the following section.

Any Type of Financial Aid (Used Any Type of Federal Financial Aid vs. Those Who Did Not)

I also completed cross tabulations to determine which sector contained the largest proportion of students who received any type of federal financial aid (vs. those who did not use federal financial aid). Not surprisingly, the for-profit sector contains the largest proportion, but the differences are not substantial. As shown in Tables A25.1 and A25.2, a large proportion (84.49%) of bachelor's degree-seeking students at for-profit institutions received some form of federal financial aid. Correspondingly, 73.20% of bachelor's degree-seeking students at public institutions and 76.30% of those at private nonprofit institutions did the same. Table 5 reveals relatively small effect sizes (.10 for both) in regard to this variable.

Students Who Received Help from Parents to Pay for Tuition and Fees (vs. Those Who Did Not)

Not surprisingly, proportionally more bachelor's degree-seeking students at traditional institutions received help from their parents to pay for tuition and fees than did those at for-profit institutions. Specifically, 31.95% of students at for-profit institutions received help from their parents to cover tuition and fee costs as compared to 63.83% at public institutions and 70.33% at private nonprofit institutions (see Table A26,1 and A26.2). The effect sizes ranged from .16 to .25 and reflect these differences (see Table 5).

Table 5 *Comparison of Students at Private For-Profit Colleges with Students at Public Colleges and Private Nonprofit Colleges on Source of Funding Variables*

	For-profit colleges (FPCs) vs. public colleges (PCs)				For-profit colleges (FPCs) vs. private nonprofit college (PNCs)			
	$\chi 2$	Sig.	ES	Direction	$\chi 2$	Sig.	ES	direction
Percent who accumulated $17,100 or more in debt vs. $1.00-9,300 vs. $9,400-17,099	163.80	*	.02	FP >PC	1854.61	*	.07	FP < PNC
Percent who continuously used Pell Grants through 2009 vs. those who did not	17634.69	*	.15	FP > PC	16689.72	*	.20	FP > PNC
Percent who used any type of federal financial aid vs. those who did not	66219.24	*	.10	FP > PC	32088.01	*	.10	FP > PNC
Percent who received help from parents to pay for tuition and fees vs. those who did not	22322.62	*	.16	FP < PC	32497.21	*	.25	FP < PNC

*p < .0001

Note. The phi coefficient (φ) was used as a measure of effect size for two-by-two tables. Otherwise Cramer's V was employed.

In summary, an analysis of appendix tables and summary Table 5 reveals mixed results when comparing how bachelor's degree-seeking students differ across sectors in how they fund their educations. Interestingly, the proportion of bachelor's degree-seeking students who accumulated more than $17,100 in debt appeared to be comparable across sectors. Likewise, the proportion of bachelor's degree-seeking students who received any type of financial aid seemed comparable. On the other hand, the continuous use of Pell Grants and help from parents to pay for all expenses showed moderate differences across sectors.

All things considered, small differences were noted for the amount of (a) percent of bachelor's degree-seeking students who accumulated more than $17,100(vs. $1.00 - $9,399 vs. $9,400–$17,099) and (b) the proportion of students who used any type of financial (vs. those who did). In contrast, small to moderate differences were noted when comparing the variables of (a) bachelor's degree–seeking students who continuously received Pell Grants through 2009 (vs. those who did not) and (b) students who received help from parents to pay for tuition and fees (vs. those who did not). Implications of the above findings will be discussed in the following chapter.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

As has been noted, low graduation rates and high student loan default rates draw public scrutiny to the for-profit sector (e.g., McGuire, 2012). Nevertheless, advocates assert that the for-profit sector provides opportunities to individuals who otherwise would not have access to higher education (e,g, Guida & Figuli, 2012). In addition, according to advocates, students at for-profit institutions face obstacles not faced by students at traditional institutions. Consequently, they need the "customer care" provided by for-profit institutions (Morey, 2004).

Furthermore, students at for-profit institutions view higher education from a different perspective than do students at traditional institutions. As previously mentioned, they view higher education as a pathway to a find a better job, whereas students at traditional institutions view higher education as a pathway for personal growth and as well as for career development. Given these points, judging the merits of each higher education sector is unfitting without an examination of student differences. With this in mind, I compared bachelor's degree-seeking students at four-year for-profit institutions to those at traditional institutions.

Certainly, existing literature includes similar comparisons (e.g., Chung, 2012; Hentschke, 2007). However, an exclusive focus on bachelor's degree-seeking students at

four-year institutions (this study) presents a novel prospective that filters out certificate and diploma seeking students, as well as students who attend two-year institutions. Consequently, I compared students with similar goals, aspirations and time horizons.

Significance

As mentioned in Chapter 1, the findings of this study will be useful in two ways. First, these insights will help administrators at for-profit and traditional sectors understand more clearly which students they are in true competition for (i.e., which students tend to enroll in either the for-profit or traditional sectors), as well as which students they tend not to be in competition for (i.e., students who tend to enroll in the for-profit sector rather than the traditional sector, or vice versa). In addition, these insights will be helpful to college recruiters as well as to policy makers seeking to understand student preferences across sectors in state higher education systems.

Second, the findings shed light on educational equity, noting how low-income, minority, or at-risk bachelor's-degree-seeking students distribute themselves across sectors. For many years, graduates of for-profit institutions predominately earned certificates and diplomas. Although providing a livable wage, jobs obtained from these credentials lacked the growth potential as the jobs obtained from bachelor's degrees (Grubb, 1993). Nowadays, for-profit institutions offer students from the lowest economic strata an opportunity to earn fully accredited bachelor's degrees (Guida & Figuli, 2012). Assuming that bachelor's degrees provide low-income students with opportunities to overcome economic stratification (Kirp, 2003), I focused on bachelor's degree-seeking students.

As previously mentioned, some traditional institutions facing funding cuts and rising costs recognize older students as an expanding student market base (Bleak, 2005). Marketing approaches reflect this recognition. For example, Arizona State University displays testimonials of adult students who simultaneously seek degrees and careers (Arizona State University, n.d.). Similarly, Aurora University offers weekend and evening classes designed to attract working adults (Aurora University n.d.). Given these points, it appears that older students who have customarily attended for-profit institutions may now be shifting towards traditional institutions. In light of this, the findings reveal how older, career focused students distribute themselves across sectors.

Discussion and Implications

Academic Preparation and Background

Results support assertions in the literature that students at for-profit institutions arrive with weaker academic backgrounds than do students at traditional institutions (e.g., Ruch, 2001). This was born out in Table 2 of the last chapter, as well as Tables A1.1-A6.2 in the Appendix, which compare students across sectors in terms of high school grade point average, advanced placement courses taken while in high school, the receipt of a GED as opposed to a high school diploma, enrollment in college-level courses while in high school, the completion of trigonometry or Algebra II while in high school, and scores on the ACT or SAT. On all of these measures, students in the for-profit sector tend to "score" lower than students in the traditional sectors (i.e., public institutions and private, nonprofit institutions).

Nonetheless, in some instances the proportions of students who scored lower differed only slightly. To explain, as noted in Chapter 4, traditional institutions enrolled

a sizable proportions of bachelor's degree-seeking students who earned above-average high school GPAs (3.0-4.0). Specifically, 84.14% of bachelor's degree-seeking students at public institutions and 86.38% of those at private nonprofit institutions earned above-average GPAs. However, for-profit institutions enrolled a sizable proportion of bachelor's degree-seeking students who did the same. Specifically, Table A1 indicates that over 63.50% of students at for-profit intuitions earned high school GPAs in the above-average range (3.0-4.0).

In similar fashion, cross-sector tabulations in regard to ACT and SAT scores reveal that for-profit institutions enroll a competitive proportion of students who performed satisfactorily on admission tests. To illustrate, cross tabulations indicate that 67.68% of bachelor's degree-seeking students at for-profit institutions scored in the middle to high range on their ACT or SAT exams. Comparatively, 88.44% of bachelor's degree-seeking students at public institutions and 98.84% of those at private nonprofit institutions did the same (see Tables A6.1 and A6.2). Given these points, it becomes apparent that a competitive proportion of bachelor's degree-seeking students at for-profit institutions arrive equipped to handle college-level course work.

In light of this, many students at for-profit schools possess the qualifications needed to attend more selective traditional institutions, yet they still chose the for-profit sector. Certainly, this may lend support to a theory stating that some students shy away from traditional institutions because they "simply find the bureaucracy there too difficult to deal with" (Wilson, 2010, "Neon Lights" section, para. 6). Although for-profit sector administrators may view this as a competitive advantage, some traditional sector administrators may view it as a disadvantage. Either way, it lends support to a

proposition that students at for-profit institutions place a high importance on customer service (e.g., Morey, 2004), which may be drawing otherwise qualified students away from the traditional sector. Following this further, the literature has indicated that students returning to the educational system, after spending years away from it, require special attention (Hinton-Smith, 2008). Because they receive this attention at for-profit institutions, a significant proportion of these students may favor the for-profit sector (Wilson, 2010).

Furthermore, results support claims that students at for-profit institutions were less likely to have set their sights on college while they were in high school than were students at traditional institutions (e.g., Ruch, 2001). The findings indicate that bachelor's degree-seeking students at for-profit institutions were the least prone to have taken advanced placement courses: 28.24% of them took advanced placement course while in high school compared to 42.90% at public institutions and 60.94% at private nonprofit institutions (see Tables A2.1 and A2.2). Similarly, the largest proportions of bachelor's degree-seeking students who earned a general equivalency degree (GED) attended for-profit institutions. In detail, 14.33% of these students earned a GED compared to 2.74% at public institutions and 3.46% at private nonprofit institutions (see Tables A3.1 and A3.2).

With this in mind, for-profit institutions provide expanded support systems (Schilling, 2013) that treat students as paying customers who need attention (Morey, 2004). On the other hand, traditional institutions are more prone to support football teams, marching bands, and scholarly publications. This has provided traditional institutions with a powerful collegiate culture, which is a driving force behind successes

in both student recruitment and procuring research dollars (Volkwein & Sweitzer, 2006). But if traditional institutions hope to attract and retain adult learners, these institutions must combine the collegiate culture with a customer-service culture (Sperling &Tucker, 1997). However, a paradigm shift of this nature may take years to take form, because faculty at most traditional institutions reportedly embrace a culture that is not conducive to customer service (Bleak, 2005).

Demographic Differences Between Students

The differences across sectors in regard to race and gender were relatively small. However, in regard to other demographic variables, Table 3 discloses moderate to large differences (as evidenced by effect sizes .30 or higher). For example, effect sizes of .30 or higher appeared when comparing bachelor's degree-seeking students who are (a) financially independent (from parents) vs. those who are dependent, (b) financially independent with children of their own (vs. those who are financially independent without children vs. those who are dependent), (c) single parents (independent students only) vs. those who are not single parents, and (d) age of 30 or older (vs. age of 19-23 vs. age of 24-29). Meaningfully, these results support a belief that for-profit institutions enroll the largest proportion of "at-risk" students (Guida & Figuli, 2012).

Following this further, four-year for-profit institutions enrolled the largest proportions of economically disadvantaged bachelor's degree-seeking students. As evidence, findings show that 15.64% of bachelor' degree-seeking students at for-profit institutions lacked any type of bank account as compared to 4.19% at public institutions and 4.53% at private nonprofit institutions (see Tables A15.1 and A15.2). Further evidence of economic disparity appears when comparing the income of parents.

One may assume that being economically disadvantaged equates to being born to parents who lack the financial resources to send their children to college (Carnevale & Strohl, 2011). In view of that, results indicate that proportionally fewer parents of dependent bachelor's degree-seeking students at for-profit institutions earn incomes in the higher income brackets and proportionally more of them earned incomes in the lower income brackets. For example, only 19.44% of the parents of dependent bachelor's degree-seeking students at for-profit institutions earned from $65,000 to $105,000 per year, compared to 37.47% at public institutions and 40.24% at private nonprofit institutions (see Tables A13.1 and A13.2). In the same vein, 49.29% of financially dependent bachelor's degree-students at for-profit institutions had parents who earned less than $30,000 per year, compared to 30.37% of those at public institutions and 26.57% of those at private nonprofit institutions.

Because for-profit institutions serve the highest proportion of economically disadvantaged students, the for-profit sector serves students with challenges (Hinton-Smith, 2008). According to advocates, when for-profit institutions help these students to overcome these challenges, opportunities are created (Guida & Figuli, 2012). However, creating opportunities involves more than enrolling at-risk students; it also involves retaining and placing them. The objective should be to imitate what DeVry University boasts about: "within six months of graduation, 95% of its graduates are working, and not behind the McDonald's counter but at jobs with a future." (Kirp, 2003, p. 243). Equally important are the factors that influence school choice which, as mentioned above, is an important consideration. School choice factors are addressed in the following paragraphs below.

Factors That Influence School Choice

As mentioned above**,** the literature explains that students at for-profit institutions view higher education in a different context than students at traditional institutions. This concept is summarized below:

> For-profit institutions focus on students as customers and provide services for them that minimize the amount of bureaucracy through which a student must navigate. Although many adults enrolled in for-profit institutions recognize that they are not receiving a degree from a "brand name" university, the convenience and ability to reduce time to the degree attract them. (Morey, 2001, p.302).

Although convenience was not listed by NCES as an official variable, an examination of similar variables implies that students at for-profit institutions seek convenience. For example, in regard to bachelor's degree-seeking students who took their entire program online, the largest proportion (46.94%) attended for-profit institutions (compared to 11.3% at public and 13.05% at private nonprofit respectively). Nonetheless, this dynamic may change if more traditional institutions offer online courses and a greater proportion of their students choose the online option. However, it appears that for-profit institutions currently enroll the largest proportion of students who seek convenience through online education.

In similar fashion, for-profit institutions enrolled the highest proportion (13.91%) of bachelor's degree-seeking students who some attended weekend classes. Indeed, traditional institutions enrolled smaller proportions (8.42% and 12.03%) but not by a wide margin (see Tables A19.1 and A19.2). Certainly, a comparable proportion of students at traditional institutions attended some weekend classes. Consequently, these

findings provide further evidence that traditional institutions are willing to accommodate adult learners.

Interestingly, the findings also indicate that a significant proportion of bachelor's degree-seeking students at for-profit institutions (who are employed) are likely to view themselves as employees who attend classes. In contrast, those at traditional institutions are more likely to perceive themselves as students who work. Specifically, 35.43% of bachelor's degree-seeking students at for-profit institutions perceived themselves as employees who attend school vs. students who work (see Tables A18.1 and A18.2). However, proportionately fewer students at traditional students viewed themselves in this manner (7.93% at public and 12.23% at private nonprofit). Indeed, future cross tabulations for this variable may reveal a shift. However, it appears that for-profit institutions currently enroll proportionally more bachelor's degree-seeking students who view their primary role as employee.

How They Pay for College

As indicated in the analysis section, all three sectors enroll a significant percentage of bachelor's degree-seeking students who accumulated large debt loads. Specifically, 39.03% of students at for-profit institutions accumulated more than $17,100 in debt compared to 36.40% at public institutions and 48.91% at private nonprofit institutions (see Tables A23.1 and A23.2). Based on these results, debt presents a challenge to students across higher educational sectors.

On the other hand, Pell grant comparisons across sectors reveal that a significantly greater proportion of bachelor's degrees-seeking students at for-profit institutions received these grants, as summarized in Table 5. For example, among

bachelor's degree-seeking students who began in 2004, 55.27% continuously received Pell grants through 2009, as compared to 24.40% of those at public institutions and 24.26% of those at private nonprofit institutions who did the same (see Tables A24.1 and A24.2). This lends further support to claims that students at for-profit institutions procure the most federal aid dollars (Johnson, 2011). Particularly, findings of this study provide evidence that this holds true for bachelor's degree-seeking students at four-year institutions. Finally, since Pell grants go the neediest, results lend further support to claims that students at for-profit institutions originate from the least wealth.

Nevertheless, the main source of controversy revolves around the repayment of student loans. Critics claim that a significant portion of students at for-profit institutions withdraw, and thereafter default, and since the loans are government-secured, taxpayers end up paying the bill (e.g., Johnson, 2011). To verify, critics point to a 22% graduation rate for bachelor's degrees within six years of starting, as compared to graduation rates of 65% at private nonprofit institutions and 55% at public institutions (Lynch et al., 2010). However, advocates point out that for-profit institutions are more likely than traditional institutions to enroll at-risk students. Accordingly, these students are more inclined to be financially independent from their parents, have children of their own, be over 30, and enroll as first-generation students (see Table 3). Not surprisingly, these students withdraw at the highest rate (Guida & Figuli, 2012), but this was not explained in this study.

Unquestionably, quick response mechanisms, creative course scheduling, and friendly customer service provide the for-profit sector with a competitive advantage (Sperling & Tucker, 1997). However, high student default rates, low graduation rates,

and reputations for unethical business practices reveal weaknesses. With this in mind, the for-profit sector must be held accountable. Yet, the accountability should factor in results of this study, which confirm that for-profit institutions face unique retention challenges. Accordingly, this should help evaluators view the entire scope of the default rate challenge.

Conclusions and Need for Further Research

The testing of hypotheses drawn from existing literature brought out significant differences between bachelor's degree-seeking students at for-profit institutions and those at traditional institutions. In addition, the focus on bachelor's degree-seeking students at four-year institutions adds a unique perspective because previous studies often lacked this focus (e.g., Deming et. al, 2012; Tierney & Hentschke, 2007). Equally important, the inclusion of effect sizes in the results brought out the magnitude of the differences.

Significantly, effect sizes explain moderate to large differences (effect sizes of .30 or above) across sectors in regard to 4 demographic variables and 1 school choice variable. Specifically, cross tabulations led to effect sizes of this magnitude when comparing bachelor's degree seeking students (across sectors) who were (a) financially independent from their parents, (b) financially independent from their parents with children of their own, (c) single parents (independent students only), and (d) older than the age of 30. Similarly, in regard to school choice variables, findings disclose relatively moderate to large difference (effect sizes > .30) across sectors when comparing the proportions of bachelor's degree seeking students who take all their courses online.

On the other hand, in many ways, the differences between students at for-profit institutions and those at traditional institution were small. For example, a sizeable

proportion of students across all sectors (a) accumulated large student loan debt loads, (b) used location as a school choice criterion, (c) earned above average high school grade point averages and entrance exam scores, (d) attended some classes on weekends, and (e) took some online courses. Consequently, the gap between bachelor's degree-seeking students at for-profit institutions and those at traditional institutions remain large in regard to some variables. However, in regard to others, the line between for-profit and nonprofit institutions shows signs of becoming blurred. More detailed explanations and implications for practice will be provided below.

Implications for Practice

Administrators, recruiters (at all sectors), legislators and the general public should understand that the U. S. higher education system is in a state of flux. Older students seeking convenience and quick degrees are now moving closer to the norm (Tierney & Hentschke, 2007). For example, almost 20% of the bachelor's degree-seeking students at private nonprofit four-year institutions were 30 years of age or older (see Table A10.2). Although for-profit institutions enroll the highest proportion of bachelor's degree-seeking students who take their entire programs online (46.94% vs. 11.30% at public institutions and 13.05% at private nonprofit institutions), a substantial proportion of students at all sectors took some online courses (53.79% at public institutions and 35.59% at private nonprofit institutions). Consequently, administrators and recruiters at traditional institutions should realize that a sizable proportion of bachelor's degree-seeking students (across all sectors) took at least one online course (see Tables A20.1 and A20.2). As a result, the convenience of online education should be mentioned in marketing messages across the sectors.

To reiterate, results indicate that for-profit institutions contain the greatest proportion of students who are considered economically disadvantaged. For example, findings indicate that proportionally more bachelor's degree-seeking students at for-profit institutions (compared to those at public and private nonprofit institutions) originated from low-income families. Assuming that a four-year bachelor's degree provides opportunity to individuals from low-income roots, this is an important aspect to consider (Ruch, 2001). In addition, all three sectors contained a substantial percentage of students who accumulated large debt loads (see Tables A 23.1 and A 23.2). Apparently, the escalating costs of higher education (Ehrenberg, 2002) forces students at all sectors to depend less on parents and more on student loans. Therefore, legislators, educators, administrators as well as the general public must take this into account when evaluating the repercussions of higher educational costs.

Furthermore, results indicate that some students arrive with less academic preparation than others (see Table 2). Consequently, institutions enrolling ill-prepared students must take steps to ensure that they are able to negotiate the stressors of higher education. For instance, courses that improve organizational skills should be an integral part of required course work.

Moreover, existing literature points out that the for-profit sector contains the largest proportion of minorities, older students, economically disadvantaged students, and women. Importantly, I conducted cross tabulations to discover that this holds true for bachelor's degree-seeking students at four-year institutions. In view of that, these students are more likely to face the challenges of paying bills and raising children, whereas students at traditional institutions are less likely to be burdened with such

responsibilities. Again, if traditional institutions recruit adult learners, these institutions must understand that these students face adult problems (Hinton-Smith, 2008). Certainly, for-profit institutions have known this for years and the accommodation of these students is considered a competitive advantage (Wilson, 2010).

In addition, the literature indicates that students at for-profit institutions are more concerned with career advancement and less concerned with socialization than are students at traditional institutions (Morey, 2001). Employing data from the most recent available NCES datasets, I confirmed that this holds true for bachelor's degree-seeking student at four-year institutions. Additionally, this study reveals that affordability and financial considerations are not the most important school choice criteria for students at for-profit institutions. Certainly, this information will aid marketing strategists at all institutions gain insight into students that they hope to enroll.

Finally, a majority of non-traditional students may have no choice but to attend for-profit institutions because public institutions cannot accommodate their needs (Wilson, 2010). Under this premise, if the least expensive sector (public) accommodates nontraditional students with more convenience through online offering or more flexible scheduling, this sector may become formable competition to the for-profit sector.

Need for Further Research

This study provides valuable insight into the differences between bachelor's degree-seeking students at for-profit institutions four-year institutions and those at traditional four-year institutions. However, a valuable follow-up study would include a similar study that addresses students who seek associate's degrees. For instance, results of this study indicate that affordability and price are not the most important school-choice

criterion for-profit bachelor's degree-seeking students. Accordingly, a valuable follow-up study would examine the importance that two-year students place on affordability. Importantly, a study of this nature could explain why students pay a premium price to attend for-profit two-year institutions instead of public two-year institutions (Clark, 2011).

In addition, the study brought out that the proportions of bachelor's degree-seeking students (at for-profit institutions) who earn respectable (3.0-4.0) high school grade point averages approximate those at traditional institutions (see Tables A1.1 and A1.2). Likewise, the proportions of bachelor's degree-seeking students at for-profit institutions, who earn admissions scores in the middle to high range (841-1600), compare favorably with those at traditional institutions (see Tables A6.1 and A6.2). Therefore, it may be assumed that a sizable portion of these students were qualified to attend traditional institutions, yet they opted to attend for-profit institutions. Hence, a valuable follow-up study would seek to discover why they chose for-profit institutions over prestigious traditional institutions.

Moreover, the growth of the for-profit sector is correlated to an exponential increase of personal computer use (Tierney & Hentschke, 2007). As NCES data reveals, the for-profit sector captured the highest market share (vs. the public sector and the private nonprofit sector) of students who took their entire programs online (see Tables A20.1 and A20.2). To capture this market share, for-profit institutions employed solid marketing strategies leading to impressive enrollment numbers and strong financial returns (e.g., Bleak, 2005).

However, a significant percentage of the revenues came from federal grants and loans extended to students at for-profit institutions to cover educational costs. For example, 55.27% of bachelor's degree seeking students at for-profit institutions continuously used Pell Grants compared to 24.40% and 24.26% at public and private nonprofit institutions respectively (see Tables A24.1 and A24.2). Nevertheless, advocates contend that for-profit institutions educate students at a lower taxpayer cost than do public institutions. The rational being that for-profit institutions lack the direct government financial support given to public institutions (e.g., Guida & Figuli,2012). In light of this, further research is needed to determine if taxpayers do indeed save money when students attend for-profit institutions in lieu of public institutions.

Nonprofit Emulating For-Profit

The findings infer that a sizable proportion of bachelor's degree-seeking students at for-profit institutions seek the convenience of online education. However, findings also indicate that a good portion of students at traditional institutions take online courses. As mentioned above, the advent of online education provides financial benefits to institutions that successfully offer online programs. Because some nonprofit institutions seek addition revenues through the recruitment of online learners, possibilities exist that traditional institutions will adopt for-profit sector strategies.

Consequently, researchers must question if "the traditions of tenure, research orientation, and shared governance are eroding in favor of cost cutting and practical strategic planning" (Finkelstein, Seal, & Schuster 1998, p.2). Signs of this trend have been reported (e.g., Bleak, 2005). In light of this, a worthwhile follow-up report would monitor organizational and cultural changes at traditional institutions.

Updates

Finally, continuing updates to this study will keep administrators, legislators, faculty, students, parents and other interested constituents mindful of changing student trends. Importantly, the updates should not only compare bachelor's degree-seeking students at four-year institutions, but should also include students at two-year institutions. Indeed, the needs of current college students are changing from the needs of college students in the past. For example, students are now more likely to concern themselves with childcare facilities (Tierney & Hentschke, 2007) and convenient parking spaces than with social activities (Morey, 2004). Given these points, researchers should continue to monitor the changing trends of higher education students within each higher education sector.

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APPENDIX

CROSS TABULATIONS AND CHI- SQUARE STATISTICS FOR STUDY VARIABLES

Table A1.1

Results of Chi-Square Test and Descriptive Statistics Comparing High School Grade Point Averages of Undergraduates at For- Profit 4-year Institutions to those at Public 4 year Institutions

	For-profit 4-year		Public 4-year			
Grade Point Average	*n*	%	*n*	%	χ^2	φ
2.0-2.9	10837	36.50	137040	15.86	8847.95	0.10
3.0-4.0	18859	63.50	726803	84.14		
Totals	29696	100	863843	100		

*P < .0001

Table A1.2

Results of Chi-Square Test and Descriptive Statistics Comparing High School Grade Point Averages of Undergraduates at For- Profit Institutions to those of Undergraduates at Private Non Profit 4-year Institutions

	For-profit 4-year		Private nonprofit 4-year			
Grade Point Average	*n*	%	*n*	%	χ^2	φ
2.0-2.9	10838	36.50	58107	13.62	113169.70	.16
3.0-4.0	18858	63.50	368345	86.38		
Totals	29696	100	426452	100		

*P < .0001 Includes only first time college students who began in the 2003-04 academic year and were enrolled in bachelor's degree programs

Table A2.1

Results of Chi-Square Test and Descriptive Statistics Comparing Percentages of Undergraduates at For-Profit 4-Year Institutions who Took Advanced Placement Courses while in High School to those at Public 4-Year Institutions

Advanced placement courses?	For-profit 4-year n	%	Public 4-year n	%	$\chi 2$	φ
No	386840	71.76	2166473	57.10	163279.50	0.18
Yes	152341	28.24	2882757	42.90		
Totals	539181	100	5049230	100		

*P < .0001

Table A2.2

Results of Chi-Square Test and Descriptive Statistics Comparing Percentages of Undergraduate Students at For-Profit 4-Year Institutions who Took Advanced Placement Courses while in High School to those at Private Nonprofit 4-Year Institutions

Advanced placement courses?	For-profit 4-year *n*	%	Private nonprofit 4-year *n*	%	χ^2	φ
No	386840	71.76	813241	39.06	184357.66	0.27
Yes	152340	28.24	1268895	60.94		
Totals	539181	100	2082136	100		

*P < .0001 Includes only undergraduates who, during the 2011-12 academic year were enrolled in bachelor's degree programs.

Table A3.1

Results of Chi-Square Test and Descriptive Statistics for High School Degree Type of Undergraduates, Comparing For- Profit Sector 4-year Students to Public Sector 4-Year Students

	For-profit 4-year		Public 4-year			
High school degree type	*n*	%	*n*	%	χ^2	φ
High school diploma	969330	85.67	5422877	97.26	284043.00	0.21
GED or equivalency	162193	14.33	151855	2.74		
Totals	1131523	100	5574733	100		

*P < .0001

Table A3.2

Results of Chi-Square Test and Descriptive Statistics for High School Degree Type of Undergraduates, Comparing For- Profit Sector 4-year Students to Private Nonprofit Sector 4-Year Students

	For-profit 4-year		Private nonprofit 4-year			
High school degree type	*n*	%	*n*	%	χ^2	φ
High school diploma	969330	85.67	2298215	96.54	140511.00	0.21
GED or equivalency	162192	14.33	95868	3.46		
Totals	1131523	100	82023	100		

*P < .0001 Includes only undergraduates who, during the 2011-12 academic year were enrolled in bachelor's degree programs

Table A4.1

Results of Chi-Square Test and Descriptive Statistics Undergraduates who Took College-Level course(s) while in High School, Comparing Students at For- Profit 4-Year Institutions to Students at Public 4-Year Institutions

	For-profit 4-year		Public 4-year			
Took college-level course?	n	%	n	%	$\chi 2$	φ
No	451413	83.72	3563140	70.57	41667.94	0.09
Yes	87767	16.28	1486139	29.43		
Totals	539180	100	5049280	100		

***P < .0001

Table A4.2

Results of Chi-Square Test and Descriptive Statistics Undergraduates who Took College-Level course(s) while in High School, Comparing Students at For- Profit 4-Year Institutions to Students at Private Nonprofit 4-Year Institutions

	For-profit 4-year		Private nonprofit 4-year			
Took college-level course?	n	%	n	%	$\chi 2$	φ
No	451414	83.72	1502823	72.18	30088.20	.11
Yes	87767	16.28	579313	27.82		
Totals	539181	100	2082136	100		

***P < .0001 Includes only undergraduates who, during the 2011-12 academic year were enrolled in bachelor's degree programs.

Table A5.1

Results of Chi-Square Test and Descriptive Statistics for Math Preparation While in High School, Comparing Undergraduates in the For- Profit Sector 4-year Sector to Undergraduates in the Public 4-Year Sector

Highest level of high school math	For-profit 4-year		Public 4-year			
	n	%	n	%	χ2	φ
Trigonometry/ Algebra II	11779	51.01	181942	26.77	6580.11	.10
Pre-Calculus or above	11310	48.99	497936	73.23		
Totals	23089	100	679878	100		

***P < .0001

Table A5.2

Results of Chi-Square Test and Descriptive Statistics for Math Preparation While in High School, Comparing Undergraduates in the For- Profit Sector 4-year Sector to Undergraduates in the Private Nonprofit 4-Year Sector

Highest level of high school math	For-profit 4-year		Private for profit 4-year			
	n	%	*n*	%	χ^2	*φ*
Trigonometry/ Algebra II	11779	51.01	79315	22.28	9807.04	.17
Pre-Calculus or above	11310	48.99	27679	77.72		
Totals	23089	100	355994	100		

*P < .0001

Table A6.1

Results of Chi-Square Test and Descriptive Statistics for Admission Test Scores (ACT or SAT) of Undergraduates, Comparing Undergraduates at For- Profit Sector 4-Year Institutions to those at Public 4-Year Institutions

	For-profit 4-year		Public 4-year			
ACT or SAT score	*n*	%	*n*	%	χ^2	φ
Lowest (400-840)	8405	32.32	101612	11.56	10187.48	0.11
Middle to high (841-1600)	17599	67.68	777090	88.44		
Totals	26004	100	878702	100		

***P < .0001

Table A6.2

Results of Chi-Square Test and Descriptive Statistics for Admission Test Scores (ACT or SAT) of Undergraduates, Comparing Undergraduates at For- Profit Sector 4-Year Institutions to those at Private Nonprofit 4-Year Institutions

	For-profit 4-year		Private nonprofit 4-year			
ACT or SAT score	*n*	%	*n*	%	χ^2	φ
Lowest (400-840)	8405	32.32	44881	10.16	11941.89	0.16
Middle to high (841-1600)	17599	67.68	396728	89.84		
Totals	26004	100	441609	100		

***P < .0001 Includes only first time college students who began in the 2003-04 academic year and were enrolled in bachelor's degree programs
ACT composite score converted to an estimated SAT score

Table A7.1

Results of Chi-Square Test and Descriptive Statistics for the Financial Dependency Status of Undergraduates controlled for age (<= 24), Comparing For-Profit Sector 4-year Students to Public Sector 4-Year Students

	For-profit 4-year		Public 4-year			
Financially Dependent?	*n*	%	*n*	%	χ^2	φ
Dependent	147984	50.75	3909194	87.96	308716.00	.26
Independent	143634	49.25	535041	12.40		
Totals	291618	100	4444235	100		

***P < .0001

Table A7.2

Results of Chi-Square Test and Descriptive Statistics for the Dependency Status of Undergraduates controlled for age (<= 24), Comparing For-Profit Sector 4-year Students to Private Nonprofit Sector 4-Year Students

	For-profit 4-year		Private nonprofit 4-year			
Financially Dependent?	*n*	%	*n*	%	χ^2	φ
Dependent	147985	50.75	1756845	91.46	350672.57	0.40
Independent	143633	49.25	163960	8.54		
Totals	291618	100	1920805	100		

***p < .001 Includes only undergraduates who, during the 2011-12 academic year were enrolled in bachelor's degree programs.

Table A8.1

Results of Chi-Square Test and Descriptive Statistics for Dependency Status and Parenthood Status of Undergraduates Controlled for age (<= 24), Comparing Students at For- Profit 4-Year Institutions to Students at Public Sector 4-Year Institutions

	For-profit 4-year		Public 4-year			
Independent with dependents?	*n*	%	*n*	%	χ^2	*Cramer's V*
Dependent	147985	50.75	3909194	87.97	420993.81	0.30
Independent without dependents	67279	23.05	396470	8.91		
Independent with dependents	76354	26.20	138571	3.12		
Totals	291618	100	4444235	100		

***P < .0001

Table A8.2

Results of Chi-Square Test and Descriptive Statistics for Dependency Status and Parenthood Status of Undergraduates Controlled for age (<= 24), Comparing Students at For- Profit 4-Year Institutions to Students at Private Nonprofit 4-Year Institutions

	For-profit 4-year		Private nonprofit 4-year			
Independent with dependents?	*n*	%	*n*	%	χ^2	*Cramer's V*
Dependent	147985	50.75	1756845	91.47	404756.07	0.43
Independent without dependents	67279	23.05	122240	6.36		
Independent with dependents	76354	26.20	41720	2.17		
Totals	291618	100	1920805	100		

***P < .0001 Includes only undergraduates who, during the 2011-12 academic year were enrolled in bachelor's degree programs.

Table A9.1

Results of Chi-Square Test and Descriptive Statistics for Percentages of Undergraduate Students at Private For-Profit 4-Year Institutions and Public 4-Year Institutions who are Single Parents (Independent Students only).

	For-profit 4-year		Public 4-year			
Single parents (independent students only)?	*n*	%	*n*	%	χ^2	φ
Not a single parent	239996	82.30	4342862	97.72	208166.43	0.21
Single parent	51622	17.70	101373	2.28		
Totals	291618	100	4444235	100		

***P < .0001

Table A9.2

Results of Chi-Square Test and Descriptive Statistics for Percentages of Undergraduate Students at Private For-Profit 4-Year Institutions and Private Nonprofit 4-Year Institutions who are Single Parents (Independent Students only)

	For-profit 4-year		Private nonprofit 4-year			
Single parents (independent students only)?	*n*	%	*n*	%	χ^2	φ
Not a single parent	239996	82.30	1892358	98.51	190983.00	.30
Single parent	51622	17.70	28447	1.49		
Totals	291618	100	1920805	100		

***P < .0001 Includes only undergraduates who, during the 2011-12 academic year were enrolled in bachelor's degree programs.

Table A10.1

Results of Chi-Square Test and Descriptive Statistics Comparing Age Group Percentages of Undergraduates at For-Profit 4 Year Institutions to those at Public Institutions

	For-profit 4-year		Public 4-year			
Age	*n*	%	*n*	%	χ^2	*Cramer's V*
19-23	216742	18.99	3530342	69.09	1156715.00	.43
24-29	301304	26.29	857304	16.78		
=>30	628251	54.82	722348	14.13		
Totals	1146297	100	5109996	100		

***P < .0001

Table A10.2

Results of Chi-Square Test and Descriptive Statistics Comparing Age Group Percentages of Undergraduates at For-Profit 4 Year Institutions to those at Private Nonprofit Institutions

	For-profit 4-year		Private nonprofit 4-year			
Age	*n*	%	*n*	%	χ^2	*Cramer's V*
19-23	216742	18.99	1494785	69.83	777526.00	.49
24-29	301304	26.19	229787	10.73		
=>30	628251	54.82	415972	19.44		
Totals	1146297	100	2140544	100		

***P < .0001 Includes only undergraduates who, during the 2011-12 academic year were enrolled in bachelor's degree programs.

Table A11.1

Results of Chi-Square Test and Descriptive Statistics for Minority Status of Undergraduates, by Higher Education Sector, Comparing Students at 4-year For Profit Institutions to Students at Public 4-Year Institutions

	For-profit 4-year		Public 4-year			
Minority status	*n*	%	*n*	%	χ^2	*Cramer's V*
White	602908	55.97	3611866	70.66	134897.00	.15
Black or African American	307533	28.53	733681	14.34		
Hispanic or Latino	167402	15.50	766551	15.00		
Totals	1077843	100	5112099	100		

***P < .0001

Table A11.2

Results of Chi-Square Test and Descriptive Statistics for Minority Status of Undergraduates, by Higher Education Sector, Comparing Students at 4-year For Profit Institutions to Students at Private Nonprofit 4-Year Institutions

	For-profit 4-year		Private nonprofit 4-year			
Minority status	*n*	%	*n*	%	χ^2	*Cramer's V*
White	602908	55.97	1625242	73.62	113477.00	.19
Black or African American	307533	28.53	325233	14.73		
Hispanic or Latino	167401	15.50	257043	11.65		
Totals	1077843	100	2207520	100		

***P < .0001 Includes only undergraduates who, during the 2011-12 academic year were enrolled in bachelor's degree programs.

Table A12.1

Results of Chi-Square Test and Descriptive Statistics for Gender for Undergraduates, by Higher Education Sector, Comparing Students at For- Profit 4-year Institutions to Students at Public Sector 4-Year Institutions

	For-profit 4-year		Public 4-year			
Gender	*n*	%	*n*	%	χ^2	φ
Male	491921	42.14	2701042	46.80	8495.64	.04
Female	675511	57.86	3070538	53.20		
Totals	1167432	100	5771581	100		

***P < .0001

Table A12.2

Results of Chi-Square Test and Descriptive Statistics for Gender for Undergraduates, by Higher Education Sector, Comparing Students at For- Profit 4-year Institutions to Students at Private Nonprofit 4-Year Institutions

	For-profit 4-year		Private nonprofit 4-year			
Gender	*n*	%	*n*	%	χ^2	φ
Male	491920	42.14	1103117	44.16	1321.54	.02
Female	675511	57.86	1395023	55.84		
Totals	1167432	100	2498140	100		

***P < .0001 Includes only undergraduates who, during the 2011-12 academic year were enrolled in bachelor's degree programs.

Table A13.1

Results of Chi-Square Test and Descriptive Statistics for Comparing the Income of Parents to Financially Dependent Undergraduate Students at For- Profit Institutions to those at Public Institutions.

	For-profit 4-year		Public 4-year			
Income of parents	*n*	%	*n*	%	χ^2	*Cramer's V*
Less than $30,000	63697	48.29	821734	30.03	24748.04	0.20
$30,000 - 64,999	42571	32.27	889573	32.50		
$65,000 - 105,000	25650	19.44	1025252	37.47		
Totals	131919	100	2736560	100		

***P < .0001

Table A13.2

Results of Chi-Square Test and Descriptive Statistics for Comparing the Income of Parents to Financially Dependent Undergraduate 4 year Students at For- Profit Institutions to those at Private Nonprofit 4-year Institutions.

	For-profit 4-year		Private nonprofit 4-year			
Income of parents	*n*	%	*n*	%	χ^2	*Cramer's V*
Less than $30,000	63697	48.29	310192	26.57	32911.09	0.16
$30,000 - 64,999	42571	32.27	387524	33.19		
$65,000 - 105,000	25651	19.44	469899	40.24		
Totals	131919	100	1167615	100		

***P < .0001 Includes only undergraduates who, during the 2011-12 academic year were enrolled in bachelor's degree programs.

Table A14.1

Results of Chi-Square Test and Descriptive Statistics for Comparing the Income of Financially Independent Undergraduate Students at For- Profit 4-year Institutions to the Income of Financially Independent Students at Public 4-year Institutions

	For-profit 4-year		Public 4-year			
Income	*n*	%	*n*	%	χ^2	*Cramer's V*
Less than $7,499	197110	19.34	507729	27.26	29624.97	0.11
$7,500 - 19,999	246012	24.12	477019	25.62		
$20,000 - $41,999	299686	29.40	439099	23.58		
$42,000 or more	276637	27.14	438559	23.54		
Totals	1019447	100	1862406	100		

***P < .0001

Table A14.2

Results of Chi-Square Test and Descriptive Statistics for Comparing the Income of Financially Independent Undergraduate Students at For-Profit 4-year Institutions to the Income of Financially Independent Students at Private Nonprofit 4-year Institutions

	For-profit 4-year		Private nonprofit 4-year			
Income	*n*	%	*n*	%	χ^2	*Cramer's V*
Less than $7,499	225723	19.34	1226057	21.24	37566.93	0.08
$7,500 - 19,999	281724	24.12	1177922	20.30		
$20,000 - $41,999	343190	29.40	1366018	23.47		
$42,000 or more	316795	27.14	2001584	34.69		
Totals	1167432	100	5771581	100		

***P < .0001 Includes only undergraduates who, during the 2011-12 academic year were enrolled in bachelor's degree programs.

Table A15.1

Results of Chi-Square Test and Descriptive Statistics for Percentages of Undergraduate Students at Private For-Profit 4-Year Institutions and Public 4-Year Institutions who have Bank Accounts

	For-profit 4-year		Public 4-year			
Has a banking account?	*n*	%	*n*	%	χ^2	φ
No	182586	15.64	241656	4.19	221895.90	0.18
Yes	984846	84.36	5529925	95.81		
Totals	1167432	100	5771581	100		

***P < .0001

Table A15.2

Results of Chi-Square Test and Descriptive Statistics for Percentages of Undergraduate Students at Private For-Profit 4-Year Institutions and Private Nonprofit 4-Year Institutions who have Bank Accounts

	For-profit 4-year		Private nonprofit 4-year			
Has a banking account?	*n*	%	*n*	%	χ^2	φ
No	182586	15.64	112989	4.53	200525.00	0.17
Yes	984846	84.36	2385126	95.47		
Totals	1167432	100	2498115	100		

***P < .0001

Table A16.1

Results of Chi-Square Test and Descriptive Statistics for Percentages of Undergraduate Students who Obtain Financial Help from Parents for Housing, Tuition, and other expenses, Comparing For-Profit 4-Year Institution Students to Public 4-Year Institution Students

	For-profit 4-year		Public 4-year			
Help from parents?	*n*	%	*n*	%	χ^2	φ
No	52827	35.70	847666	21.69	16213.57	0.07
Yes	95158	64.30	3061509	78.31		
Totals	147985	100	3909175	100		

***P < .0001

Table A16.2

Results of Chi-Square Test and Descriptive Statistics for Percentages of Undergraduate Students who Obtain Financial Help from Parents for Housing, Tuition, and other expenses, Comparing For-Profit 4-Year Institution Students to Private Nonprofit 4-Year Institution Students

	For-profit 4-year		Private nonprofit 4-year			
Help from parents?	*n*	%	*n*	%	χ^2	φ
No	52827	35.70	250843	14.28	46727.33	0.16
Yes	95158	64.30	1506006	85.72		
Totals	147985	100	1756849	100		

***P < .0001 Includes only undergraduates who, during the 2011-12 academic year were enrolled in bachelor's degree programs.

Table A17.1

Results of Chi-Square Test and Descriptive Statistics for Highest Education Level of Parents for Undergraduates, Comparing For- Profit Sector 4-year Students to Public 4-Year Students

	For-profit 4-year		Public 4-year			
Parents' highest education level	*n*	%	*n*	%	χ^2	*Cramer's V*
High school diploma or equivalent	418804	63.85	1140288	37.81	174983.60	0.22
Associates degree	91803	14.00	393447	13.05		
Bachelor's degree	145322	22.15	1482342	49.14		
Totals	655929	100	3016077	100		

***P < .0001

Table A17.2

Results of Chi-Square Test and Descriptive Statistics for Highest Education Level of Parents for Undergraduates, Comparing For- Profit Sector 4-year Students to Private Nonprofit 4-Year Students

	For-profit 4-year		Private nonprofit 4-year			
Parents' highest education level	*n*	%	*n*	%	χ^2	*Cramer's V*
High school diploma or equivalent	418804	63.85	425284	36.08	156403.50	0.30
Associates degree	91803	14.00	156340	13.24		
Bachelor's degree	145321	22.15	599459	50.78		
Total	655929	100	1181084	100		

***P < .0001 Includes only undergraduates who, during the 2011-12 academic year were enrolled in bachelor's degree programs.

Table A18.1

Results of Chi-Square Test and Descriptive Statistics for Percentages of Undergraduates who Consider Employee to be their primary role, Comparing Students at Public 4-year Institutions to those at Public Sector 4-Year Institutions

	For-profit 4-year		Public 4-year			
Employment as primary role?	*n*	%	*n*	%	χ^2	φ
A student working to meet expenses	122778	64.57	2334249	92.07	150566.00	0.24
An employee enrolled in school	67368	35.43	201159	7.93		
Totals	190146	100	2535408	100		

***P < .0001

Table A18.2

Results of Chi-Square Test and Descriptive Statistics for Percentages of Undergraduates who Consider Employee to be their primary role, Comparing Students at For Profit 4-year Institutions to those at Private Nonprofit 4-Year Institutions

	For-profit 4-year		Private nonprofit 4-year			
Employment as primary role?	*n*	%	*n*	%	χ^2	φ
A student working to meet expenses	122778	64.57	734976	87.88	61231.63	0.25
An employee enrolled in school	67368	35.43	101432	12.12		
Totals	190146	100	836408	100		

***P < .0001 Includes only undergraduates who, during the 2011-12 academic year were enrolled in bachelor's degree programs.

Table A19.1

Results of Chi-Square Test and Descriptive Statistics for Undergraduates who Attend Classes on the Weekend, Comparing For- Profit Sector 4-year Students to Public Sector 4-Year Students

	For-profit 4-year		Public 4-year			
Weekend classes?	*n*	%	*n*	%	χ^2	φ
Some	126063	13.91	235444	8.42	23914.16	0.08
None	776249	86.29	2563133	91.58		
Totals	902312	100	2798578	100		

***P < .0001

Table A19.2

Results of Chi-Square Test and Descriptive Statistics for Undergraduates who Attend Classes on the Weekend, Comparing For- Profit Sector 4-year Students to Private Nonprofit 4-Year Students

	For-profit 4-year		Private nonprofit 4-year			
Weekend classes?	*n*	%	*n*	%	χ^2	φ
Some	126063	13.91	127885	12.03	1634.21	0.03
None	776249	86.09	935171	87.97		
Totals	902312	100	1063057	100		

***P < .0001 Includes only undergraduates who, during the 2011-12 academic year were enrolled in bachelor's degree programs.

Table A20.1

Results of Chi-Square Test and Descriptive Statistics for Undergraduates who Enroll in Programs that are Entirely Online, by Higher Education Sector, Comparing For- Profit Sector 4-year Students to Public 4-Year Students

Proportion of classes taken completely online	For-profit 4-year		Public 4-year			
	n	%	*n*	%	χ^2	*Cramer's V*
All	425951	46.94	316981	11.30	561252.00	0.39
Some	234467	25.84	1508242	53.79		
None	247047	27.22	978931	34.91		
Total	660665	100	2804154	100		

***p < .001

Table A20.2

Results of Chi-Square Test and Descriptive Statistics for Undergraduates who Enroll in Programs that are Entirely Online, by Higher Education Sector, Comparing For- Profit Sector 4-year Students to Private Nonprofit 4-Year Students

Proportion of classes taken completely online	For-profit 4-year		Private nonprofit 4-year			
	n	%	*n*	%	χ^2	*Cramer's V*
All	425951	46.94	139338	13.05	282772.00	0.38
Some	234467	25.84	379996	35.59		
None	247047	27.22	548322	51.36		
Total	907464	100	1067656	100		

***p < .001 Includes only undergraduates who, during the 2011-12 academic year were enrolled in bachelor's degree programs.

Table A21.1

Results of Chi-Square Test and Descriptive Statistics for Percentages of Undergraduate Students at Private For-Profit 4-Year Institutions and Public 4-Year Institutions who Use Location as a School Choice Criterion.

Location as school choice criterion?	For-profit 4-year		Public 4-year			
	n	%	*n*	%	χ^2	φ
No	17362	31.70	195113	21.10	1899.71	0.05
Yes	37419	68.30	729327	78.90		
Totals	54781	100	924440	100		

***P < .0001

Table A21.2

Results of Chi-Square Test and Descriptive Statistics for Percentages of Undergraduate Students at Private For-Profit 4-Year Institutions and Private Nonprofit 4-Year Institutions who Use Location as a School Choice Criterion.

Location as school choice criterion?	For-profit 4-year		Private nonprofit 4-year			
	n	%	*n*	%	χ^2	φ
No	17362	31.70	250894	27.14	539.17	0.03
Yes	37419	68.30	673546	72.86		
Totals	54781	100	924440	100		

***P < .0001 Includes only first time college students who began in 2003-04 academic year and were enrolled in bachelor's degree programs

Table A22.1

Results of Chi-Square Test and Descriptive Statistics for Undergraduates who Used Affordability or Financial Reasons as a Choice Criterion, Comparing Students at For- Profit 4-year Institutions to Students at Public 4-Year Institutions

Affordability or financial reasons?	For-profit 4-year		Public 4-year			
	n	%	*n*	%	χ^2	φ
No	39170	71.50	324626	35.12	29325.72	0.18
Yes	15611	28.50	599814	64.88		
Totals	54781	100	924440	100		

*P < .0001

Table A22.2

Results of Chi-Square Test and Descriptive Statistics for Undergraduates who Used Affordability or Financial Reasons as a Choice Criterion, Comparing Students at For- Profit 4-year Institutions to Students at Private Nonprofit 4-Year Institutions

Affordability or financial reasons?	For-profit 4-year		Private nonprofit 4-year			
	n	%	*n*	%	χ^2	φ
No	39171	71.50	320985	66.48	561.14	0.03
Yes	15610	28.50	161837	33.52		
Totals	54781	100	482822	100		

*P < .0001 Includes only first time college students who began in the 2003-04 academic year and were enrolled in bachelor's degree programs

Table A23.1

Results of Chi-Square Test and Descriptive Statistics for Comparison of Cumulative Federal Loan Debt of Undergraduates, Comparing Students at- For-Profit Sector 4-year Institutions to Students at Public 4-Year Institutions

	For-profit 4-year		Public 4-year			
Accumulated debt	*n*	%	*n*	%	χ^2	*Cramer's V*
$1 - 9,399	17387	36.17	200098	36.65	163.80	0.02
$9,400 - 17,099	11916	24.81	147208	26.95		
$17,100 or more	18755	39.02	198695	36.40		
Total	48058	100	546001	100		

***p < .001

Table A23.2

Results of Chi-Square Test and Descriptive Statistics for Comparison of Cumulative Federal Loan Debt of Undergraduates, Comparing Students at- For-Profit Sector 4-year Institutions to Students at Private Nonprofit 4-Year Institutions

	For-profit 4-year		Private nonprofit 4-year			
Accumulated debt	*n*	%	*n*	%	χ^2	*Cramer's V*
$1-9,399	17386	36.18	88909	28.08	1854.61	0.07
$9,400-17,099	11916	24.80	72818	23.01		
$17,100 or more	18755	39.02	154891	48.91		
Total	48058	100	316618	100		

***p < .001 Includes only first time college students who began in the 2003-04 academic year and were enrolled in bachelor's degree programs

Table A24.1

Results of Chi-Square Test and Descriptive Statistics for Comparison of Pell Grant Use of Undergraduates, by Higher Education Sector, Comparing Students at For- Profit 4-year Institutions to Students at Public 4-Year Institutions

	For-profit 4-year		Public 4-year			
Pell Grants use through 2009	*n*	%	*n*	%	χ^2	φ
No Pell Grant received	16645	44.73	575300	75.60	17634.69	0.15
Continuously used Pell Grants	20569	55.27	185760	24.40		
Totals	37215	100	761060	100		

***P < .0001

Results of Chi-Square Test and Descriptive Statistics for Comparison of Pell Grant Use of Undergraduates, by Higher Education Sector, Comparing Students at For- Profit 4-year Institutions to Students at Private Nonprofit 4-Year Institutions

	For-profit 4-year		Private nonprofit 4-year			
Pell Grants use through 2009	*n*	%	*n*	%	χ^2	φ
No Pell Grant received	16645	44.73	308476	75.74	16689.72	0.20
Continuously used Pell Grants	20570	55.27	98828	24.26		
Totals	37215	100	407304	100		

***P < .0001 Includes only first time college students who began in the 2003-04 academic year, were surveyed periodically until 2009 and were enrolled in bachelor's degree programs

Table A25.1

Results of Chi-Square Test and Descriptive Statistics for Comparing Undergraduates Who Used Any Type of Federal Financial Aid, Comparing Students at For- Profit 4-year Institutions to Students at Public 4-Year Institutions

	For-profit 4-year		Public 4-year			
Any type of financial aid?	*n*	%	*n*	%	χ^2	φ
No	181057	15.51	1546899	26.80	66219.24	0.10
Yes	986375	84.49	4224681	73.20		
Totals	1167432	100	5771581	100		

***P < .0001

Table A25.2

Results of Chi-Square Test and Descriptive Statistics for Comparing Undergraduates Who Used Any Type of Federal Financial Aid, Comparing Students at For- Profit 4-year Institutions to Students at Private Nonprofit 4-Year Institutions

	For-profit 4-year		Private nonprofit 4-year			
Any type of financial aid?	*n*	%	*n*	%	χ^2	φ
No	181057	15.51	592103	23.70	32088.01	0.10
Yes	986374	84.49	1906011	76.30		
Totals	1167432	100	2498115	100		

***P < .0001 Includes only undergraduates in the 2011-12 academic year who were enrolled in bachelor's degree programs

Table A26.1

Results of Chi-Square Test and Descriptive Statistics for Undergraduates Who Receive Financial Help from Parents to Pay Tuition and Fees, Comparing Students at For- Profit Sector 4-year Institutions to Students at Public 4-Year Institutions

	For-profit 4-year		Public 4-year			
Help from parents?	*n*	%	*n*	%	χ^2	φ
No	37281	68.05	334379	36.17	22322.62	0.16
Yes	17500	31.95	590061	63.83		
Totals	54781	100	924440	100		

***P < .0001

Table A26.2

Results of Chi-Square Test and Descriptive Statistics for Undergraduates Who Receive Financial Help from Parents to Pay Tuition and Fees, Comparing Students at For- Profit Sector 4-year Institutions to Students at Private Nonprofit 4-Year Institutions

	For-profit 4-year		Private nonprofit 4-year			
Help from parents?	*n*	%	*n*	%	χ^2	φ
No	37280	68.05	143253	29.67	32497.21	0.25
Yes	17500	31.95	339568	70.33		
Totals	54781	100	482822	100		

***P < .0001 Includes only undergraduates in the 2011-12 academic year who were enrolled in bachelor's degree programs