

**Strategically Managing the Future of Lindsey Wilson College:
Enhancing Market Position and Reducing Student Departure**

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Doctoral Capstone Project

May 2009

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Executive Summary

The following research project was in response to a request by Lindsey Wilson College (LWC) for evidence-based data to inform two areas of the institution's strategic management plan. Institutional leaders are interested in gaining a deeper understanding of LWC's market position and the factors leading to high levels of first-year student departure. To meet this request, the project team conducted a mixed-methods approach using data from a variety of published and unpublished sources and administered surveys with LWC's admitted, non-enrolled students and enrolled freshmen students. Qualitative interviews with LWC's enrolled freshmen supplemented the study's quantitative data and elicited in-depth responses.

A strategic marketing analysis examined LWC's market position beginning with the identification of LWC's top five competitor institutions. While LWC has primarily focused their competitive strategies on a private institution—Campbellsville University; four of Lindsey Wilson's top five competitors are public institutions. The highest percentage of Lindsey Wilson's admitted, non-enrolled students attended Western Kentucky University while Campbellsville University surfaced as the only competing private institution, attracting the third highest percentage of admitted, non-enrolled students among the top five competitor institutions.

Analysis of LWC's market position was based on Kotler's (2005) customer-oriented marketing mix consisting of customer value, costs, convenience, and communications. Student perceptions were collected from LWC's admitted, non-enrolled and enrolled freshmen students using the Admitted Student Questionnaire (ASQ) and the Enrolled Student Questionnaire (ESQ) and were analyzed within the context of the institution's marketing mix.

To enhance LWC's understanding of its market position, the project team used the marketing mix analysis to identify the institution's competitive marketing strengths, weaknesses, opportunities, and threats. LWC's strengths lie in its ability to subsidize student attendance through institutional grants, the helpfulness of faculty and staff, and the institution's family-oriented environment. Institutional weaknesses include a high "sticker price" compared with public competitors, limited academic programs, and a lack of a definitive value proposition. Opportunities for LWC include potential for increased enrollment as a result of greater federal allocation for Pell Grants and the willingness of community organizations to form partnerships with the institution. Finally, threats lie in LWC's location in rural Adair County and the lower net cost of attendance at competing public institutions.

The second part of the study focused on reducing first-year student departure. LWC's institutional leaders are concerned with the challenges associated with retaining a greater percentage of first-year students. In 2007-2008, LWC's first-year retention rate was 52.6%; well below the national first- to second-year retention rate of 67.2% for private, 4-year open access institutions (America College Testing [ACT], 2008). According to the 2007 National Survey of Student Engagement report, LWC ranked nationally among

the top 10% of colleges with a “supportive campus environment” and received a high rating on the “level of academic challenge.” Given these favorable results, both of which were expected to impact student departure levels, institutional leaders are in a quandary as to factors that are adversely impacting student persistence levels.

A cluster analysis identified LWC’s peer institutions to create a comparative context in which to examine issues of student departure. The analysis produced nine national peer institutions, including nearby Campbellsville University and the University of the Cumberlands. LWC was then compared with these institutions on characteristics related to student departure. Despite LWC’s encouraging increase in retention rates over the past three years, the college’s retention rates remain lower than many of its peers.

An in-depth analysis of first-year student departure was divided into first- and second-semester analyses. First-semester results revealed that students with higher family income, less social affiliation, unable to make independent decisions, and have minimal interaction with faculty are at greater risk of departure. The second- semester results revealed that a student’s external environment, namely parental support, is directly related to student persistence. Academic integration, rather than social integration, is directly related to student persistence. Institutional integrity is linked to both social and academic integration, while commitment of the institution to student welfare directly affects social integration and subsequent commitment to the institution. In addition, living on campus and working while enrolled, negatively impacts subsequent commitment to the institution and social integration, respectively.

From the analysis of student departure at LWC and an analysis of a national sample of open-admission institutions, the project team articulated structural limitations that LWC faces in reducing student departure. In its mission to educate academically underprepared students, the size of LWC’s enrollment and its commitment to fostering a nurturing environment, creates an institutional challenge to retaining students. Despite these limitations, instructional expenditures have a positive effect on increasing student persistence.

The project team made 21 recommendations including the expansion and differentiation of LWC’s marketing strategy to a broader audience with an emphasis on the institution’s value proposition. To improve first-year student departure, LWC must engage parents and families in the academic and social environment. Academic integration serves as a vital component to reducing first-year student departure at LWC and should become a focus of Freshman Seminar courses. Institutional leaders must ensure the alignment of the college’s mission, values, policies, and procedures, while demonstrating an abiding concern for the growth and development of students. Despite the challenges LWC is faced with, the college is poised for a promising future.

Introduction

Lindsey Wilson College (LWC) is located in Adair County, KY and has transformed from its founding in 1903 as a preparatory school for teachers to a 2-year junior college to its current status as a 4-year liberal arts college. Since 1985, when it became a 4-year degree-granting baccalaureate college, enrollment has increased substantially, faculty and staff have multiplied, degree offerings and budgets have expanded, athletic teams have won national championships, extensive building campaigns have concluded, philanthropic support has grown, and the college now has partnerships with eleven community colleges.

Despite LWC's growth, the college remains committed to an open admission policy embodied in its mission—"to serve the educational needs of students by providing a living-learning environment within an atmosphere of active caring and Christian concern where every student, every day, learns and grows and feels like a real human being."

LWC's total enrollment for 2008-2009 was 2,003, consisting of 1,674 undergraduates and 329 graduates. Enrollment for the main campus consisted of 1,124 undergraduates of which 64% lived on campus. Eighty percent of the students are first-generation students¹ and 15% represent minority groups. Students at LWC come from 27 states and 31 countries. Despite the geographic diversity, 84% of students come from counties within Kentucky.

In rural Kentucky, Adair County residents have a median household income of \$24,055 and 24% live below the poverty line. Only 11% of residents hold a bachelor's degree or higher and 63% of students entering college from Adair County do so with developmental needs in one or more subjects (Kentucky Council on Postsecondary Education, 2008). Demographic profiles of LWC's surrounding counties are similar to Adair. Russell County—the county home to the second largest concentration of freshmen students—has a median household income of \$22,042 and 24% live below the poverty line. Fewer than 10% of residents hold a bachelor's degree or higher and 57% of students from Russell County are academically underprepared (Kentucky Council on Postsecondary Education, 2006).

LWC is one of Kentucky's fastest-growing 4-year independent colleges, evidenced by its "aggressive and ambitious" building programs and renovations in the past 20 years (Association of Independent Kentucky Colleges and Universities [AIKCU], 2007). However, given the demographics of its students and the imminent nature of the country's current economic situation, LWC faces substantial challenges to ensure its continued growth and success.

¹ Based on an average of LWC's freshman cohorts from 2004-2008. First-generation means that neither of a student's parents attended college as indicated on the Free Application for Federal Student Aid (FAFSA). Data provided by LWC's Office of Institutional Research.

Problem Statement

In today's increasingly competitive postsecondary environment, LWC strives to fulfill its mission, while ensuring the college's present and future financial viability. Colleges and universities around the country are implementing strategic initiatives to maintain their competitive position in the marketplace and ensure their emergence from the current financial crisis as a more efficient and effective institution. To strengthen competitive advantages and mitigate deficiencies, LWC requires a thorough internal and external self-assessment to successfully adapt to the changing environment.

Institutional leaders at LWC made assumptions about their immediate competitors but lack empirical evidence that concretely affirms these assumptions. Administrators at LWC expressed concerns that their attention and efforts were focused primarily on competing with rivals based on costs rather than value. As LWC's institutional leaders and faculty seek to increase the college's attractiveness to potential and current students, strategic marketing becomes critical to the institution's success.

In addition to identifying and generating an in-depth understanding of their competitors, institutional leaders at LWC are concerned with student departure rates; particularly among first-year students. Despite implementing numerous retention programs and strategies over the years, satisfactory retention rates remain a challenge. Further, LWC lacks familiarity with an empirically defined group of peer institutions, which makes it difficult to conduct an effective benchmarking analysis for understanding student departures issues.

In 2007-2008, the retention rate for first-time, full-time undergraduates at LWC was 52.6%; considerably below the national first- to second-year retention rate of 67.2% for private, 4-year open access institutions (ACT, 2008). In addition, retention for all undergraduate students was 54%, which is also lower than the average retention rate for 4-year colleges in Kentucky (69.5%) and trails further behind the national average (75.5%) (AIKCU, 2007; National Center for Education Statistics, 2007).

LWC's efforts to reduce student departure rates have encompassed, among other strategies, the use of Title III federal grant funds to support the Academic Success Center—a center which oversees freshmen academic advising and academic support services including tutoring, career services, and enrollment management research. LWC's retention issues remain perplexing to administrators and faculty given the results from the 2007 National Survey of Student Engagement (NSSE). According to the 2007 NSSE report, LWC ranked nationally among the top 10% of colleges with a “supportive campus environment.” Additionally, LWC received a high rating on the “level of academic challenge,” another key area measured by the NSSE. Given that both measures have a positive impact on student departure rates (Kuh, 2001), institutional leaders are determined to discover underlying factors that contribute to high levels of student departure.

Due to LWC's limited knowledge of their competitors and market position, combined with a lack of evidence-based data on student retention issues, President William Luckey

charged the project team with developing a strategic marketing analysis and gaining a deeper understanding of issues relating to the high levels of student departure among first-year students. Following Keller's (1983) suggestion that strategic planning is a participative process for the whole institution, the project team began by interviewing institutional leaders at LWC to understand the perceived problem areas. Information gathered from these discussions, combined with extant literature, directed this research project that was guided by the following questions:

Project questions

Part I: Strategic marketing analysis

- Who are LWC's "true" competitors?
- How does LWC compare with competitor institutions on customer value, costs, convenience, and communications?
- How do students perceive LWC's marketing mix?
- What are LWC's competitive marketing strengths, weaknesses, opportunities, and threats?

Part II: Reducing student departure

- Who are LWC's peer institutions?
- How does LWC compare with peer institutions on characteristics that impact student departure?
- What factors contribute to first-year student departure at LWC?
- What are the structural limitations to increasing retention rates for first-year students at LWC?

Part I: Strategic Marketing Analysis

Higher education in America has, to an extent, always been a competitive environment. Institutions compete with one another for students, faculty, administrators, donors, research grants, reputation, and prestige. Private open-admission institutions like LWC, with less selective academic requirements, are often enrollment-driven and compete with rivals for students. Newman and Courtier (2001) argued that higher education's competitive arena has become more intensified through creative uses of financial aid to attract students, the rising number of applicants for federal grants, increased sophistication of student demands on institutions, new technologies, the privatization of higher education, and the proliferation of for-profit educational entities.

“True” Competitors of Lindsey Wilson College

With the increased competition in higher education, colleges and universities are turning to evidence-based data to identify their competitors and understand the ways in which they compete with one another. Although research on competitor identification in higher education has been scarce, Clark and Montgomery (1999) identified two approaches for institutional leaders to utilize in identifying competitors. A supply-based approach identifies competitors based on institutional characteristics such as an institution's Carnegie Classification, the quantity and nature of academic programs offered, and admission requirements. A demand-based approach identifies competitors on the basis of customer attributes, in addition to the geographic scope of consumer markets.

In the past, LWC has used a combination of a supply-based approach and demand-based approach to identify competitors. However, through various discussions with LWC's administrators, it became evident that there was a lack of consensus identifying the institution's “true” competitors. Table 1 includes a list of LWC's most cited direct and indirect competitors by administrators. The project team discovered that LWC failed to take advantage of a service provided by the National Student Clearinghouse known as Student Tracker. This service provides colleges and universities with a more accurate measure than a supply-based or demand-based approach, allowing institutions to utilize a robust data set to track precisely where their admitted, non-enrolled students eventually matriculated. This is accomplished through student information provided by institutions to the National Student Clearinghouse. Consequently, the project team collaborated with LWC's Office of Institutional Research to submit a database of 760 LWC admitted, non-enrolled students for fall 2008 to the National Student Clearinghouse.

The data were returned to the Office of Institutional Research and was then provided to the project team for analysis. It should be noted that Student Tracker does not track students who enrolled at institutions that are not members of the National Student Clearinghouse. Further, Berea College, presumed to be a competitor of LWC, failed to report data to the National Student Clearinghouse for 2008 and was not included in the report. The analysis was performed using SPSS, providing descriptive statistics on the number of students attending various institutions and determining LWC's top competitor institutions.

Competitor Findings

LWC's admitted, non-enrolled students for 2008 attended a variety of colleges and universities around the country. The Student Tracker data located 547 students attending a total of 108 institutions. Appendix A provides a complete listing of these institutions and the number of LWC's admitted, non-enrolled students attending them. The remaining students who were not tracked to an institution either did not enroll in college or attended an institution that failed to submit data to the National Student Clearinghouse.

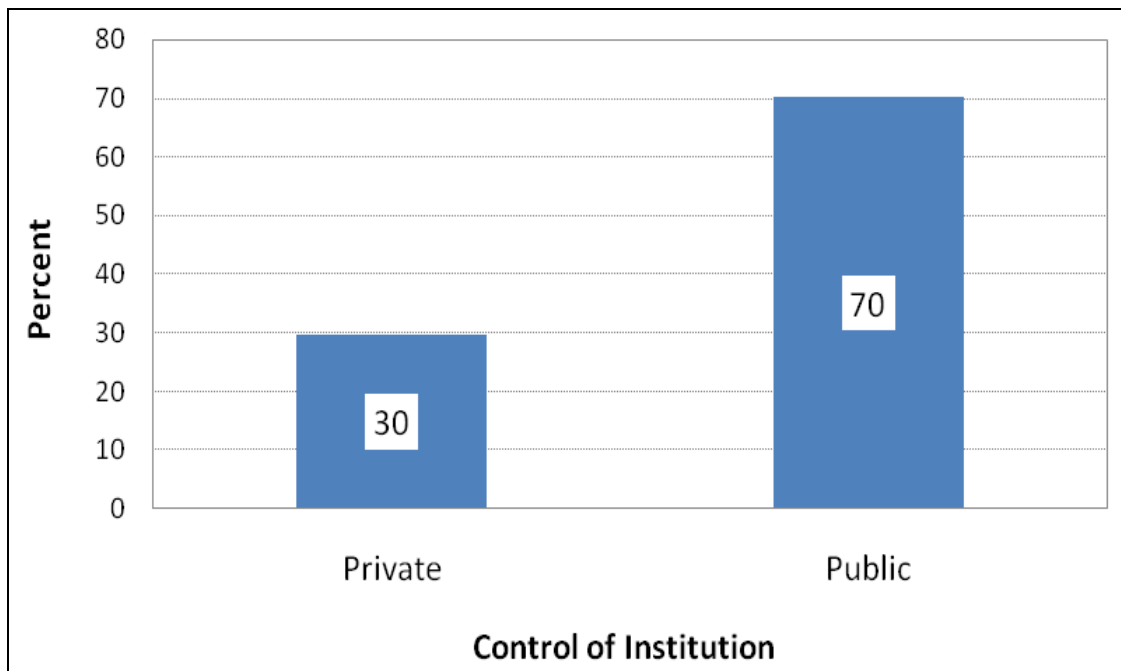
Table 1: LWC's Perceived Competitor Institutions, Based on Discussions with LWC Administration and Faculty

Institution	Rationale
Bellarmino University	Religiously affiliated, liberal arts, location in Louisville
Berea College	Targets low-income families, all students receive full-tuition scholarships
Campbellsville University*	Close proximity, religiously affiliated, ranked in <i>U.S. News and World Report</i>
Centre College	Prestigious liberal arts reputation, small student body
Eastern Kentucky University	Large public institution, low tuition and fees, similar student profile
Georgetown College	Private, religiously affiliated
Kentucky Wesleyan College	Small, private, religiously affiliated, variety of pre-professional programs
Morehead State University	Considered one of the top public institutions in the South
Somerset Community College*	Two-year institution with low tuition and fees
Union College*	Private, liberal arts, and religiously affiliated
University of Kentucky	One of the nation's top public research institutions, lower tuition and fees, location in Lexington
University of Louisville	Large public institution, low tuition and fees, strong athletic programs, location in Louisville
University of the Cumberlands*	Private, liberal arts, and religiously affiliated
Western Kentucky University*	Large public institution, low tuition and fees

*Perceived as a direct competitor of LWC.

Figure 1 indicates that of the 547 students traced through the National Student Clearinghouse, 30% attended private institutions and 70% attended public institutions. Of the 70% attending public institutions, 29% attended a community or technical college. These results coincide with the findings from a study conducted in 2000 by the Association of Independent Kentucky Colleges and Universities (AIKCU, 2000), which revealed that public institutions were chosen over private institutions by Kentucky adults by a margin of more than two to one.

Figure 1. LWC's Admitted, Non-Enrolled Students Attending Private and Public Institutions

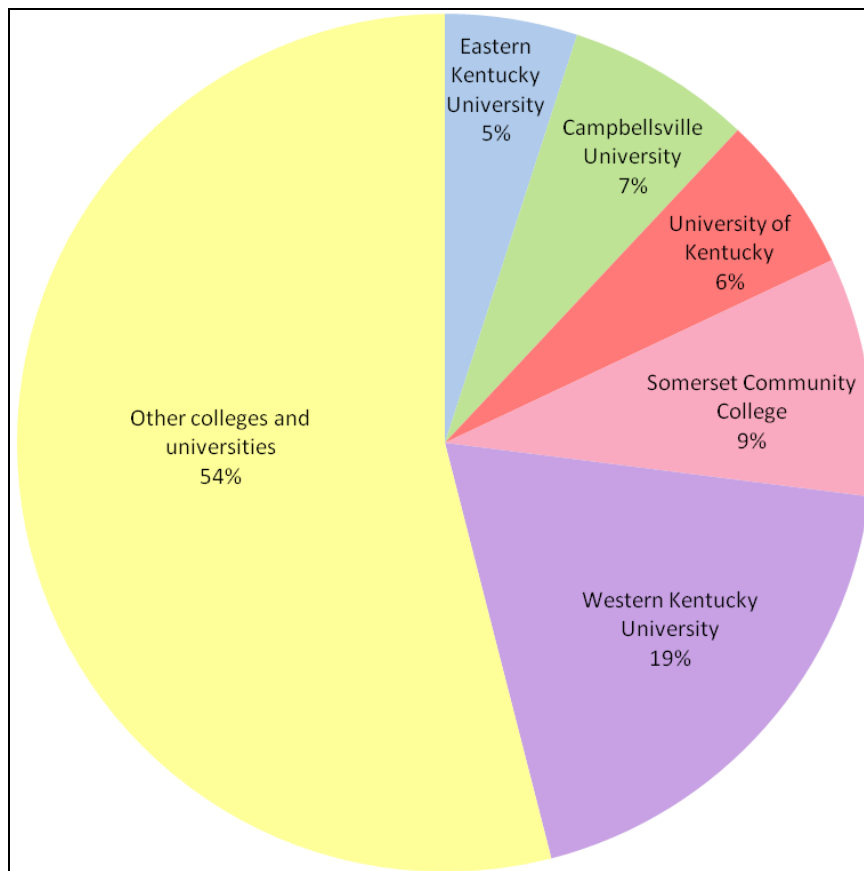


Data from the Student Tracker confirmed several of LWC's perceived direct competitors, while including other institutions that appear to be more closely aligned as direct competitors. The differences between LWC's perceptions of their direct competitors and the evidence-based data from the Student Tracker, indicates that two public institutions, University of Kentucky and Eastern Kentucky University, are more direct competitors with LWC than the private institutions, Union College and the University of the Cumberlands.

Figure 2 highlights the five institutions that attracted the highest percentages of LWC's 547 admitted, non-enrolled students included in the Student Tracker data. The proportion of "other colleges and universities" represents 293 students attending 103 different 2-year and 4-year public and private institutions. Each of these institutions comprise less than 5% of the total number of admitted, non-enrolled students in the sample. Seventy-five of the institutions included in "other colleges and universities" are located outside the state of Kentucky. LWC's top five competitors are Western Kentucky University, Somerset Community College, Campbellsville University, University of Kentucky, and Eastern Kentucky University; all of which are located in Kentucky. These institutions enrolled

46% of LWC’s sample of admitted, non-enrolled students. Western Kentucky University enrolled the highest percentage of LWC’s admitted, non-enrolled students with 19%, which more than doubles the percentage of admitted, non-enrolled students enrolled at Somerset Community College—the college which enrolled the second highest percentage of LWC’s admitted, non-enrolled students.

Figure 2. LWC’s Top Five Competitor Institutions Based on Admitted, Non-Enrolled Students

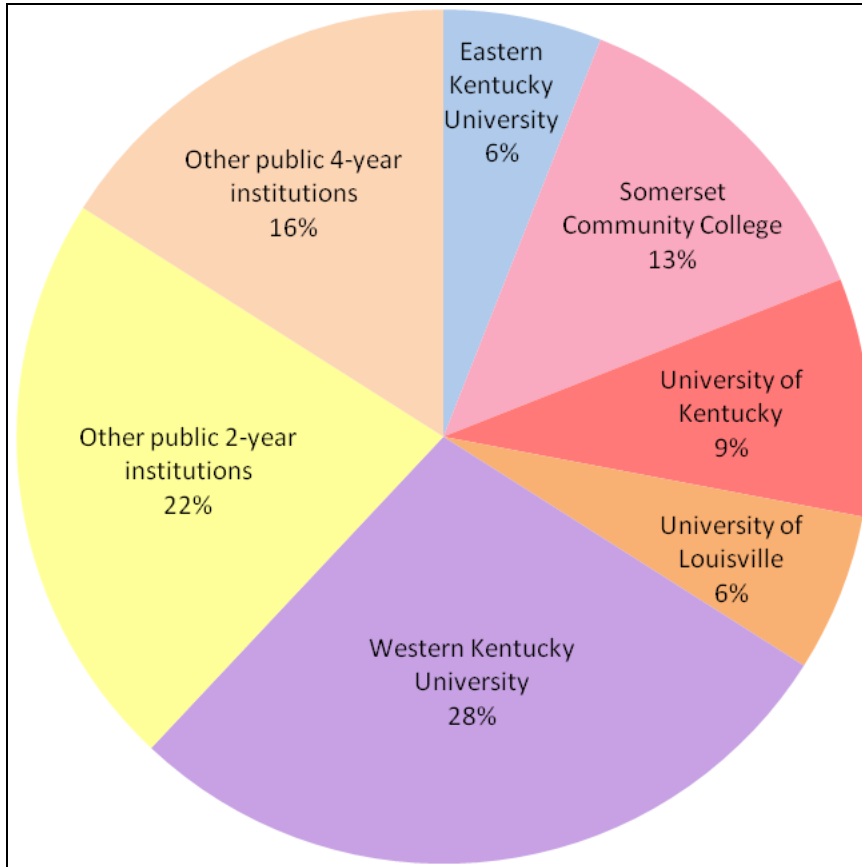


While many of LWC’s administrators have the perception that Campbellsville University is the college’s primary competitor, Campbellsville University trails both Western Kentucky University and Somerset Community College in terms of the percentage of LWC’s admitted, non-enrolled students who attended these institutions. Four of LWC’s top five competitor institutions are public institutions, suggesting there is a misconception on campus as to the degree to which LWC is competing with public institutions.

The project team analyzed Student Tracker data further by separating public competitor institutions from private counterparts. Figure 3 illustrates that of the 384 students (70%) who attended a public institution, Western Kentucky University enrolled the highest percentage of students (28%), more than double that of Somerset Community College (13%). The remaining two categories “other public 4-year” represents 35 4-year public institutions; each comprising less than 3% of admitted, non-enrolled students who attended public institutions. Similarly, “other public 2-year” represents 30 2-year public

institutions; each with less than 4.4% of the total number of admitted, non-enrolled students who attended public institutions.

Figure 3. LWC’s Admitted, Non-Enrolled Students Attending Public Competitor Institutions

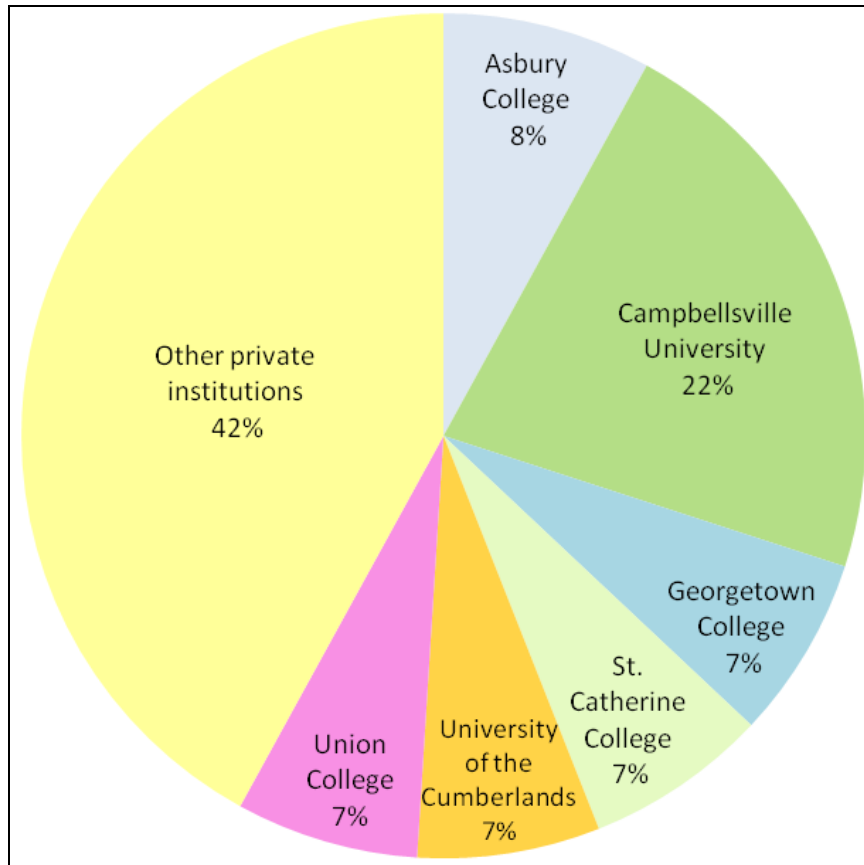


One of the appealing features of public institutions to many students and families is the dispersion of branch campuses across the state, which enhances the possibilities of students from various regions attending the institution. For example, Western Kentucky University, located in Bowling Green, has branch campuses in Glasgow, Owensboro, and Elizabethtown, while Somerset Community College, located in Somerset, has several branch campuses located throughout the state including London, Albany, Whitley City, Liberty, and Russell Springs. Student Tracker is unable to disaggregate the number of students attending branch campuses.

Figure 4 illustrates that of the 163 students (30%) who attended a private institution, Campbellsville University enrolled the highest percentage of students (22%). It is evident that Campbellsville University is LWC’s top private competitor as it attracted close to three times the number of admitted, non-enrolled students compared with Asbury College; the institution that attracted the second highest percentage of LWC’s admitted, non-enrolled students at private institutions. Although Asbury College received little mention from LWC’s administrators in their discussions with the project team, Asbury College featured prominently in attracting LWC’s admitted, non-enrolled students. The

remaining category “other private” represents five private, 2-year institutions and 33 private, 4-year institutions; none of which accounts for more than 4.3% of the total number of admitted, non-enrolled students who attended private institutions.

Figure 4. LWC’s Admitted, Non-Enrolled Students Attending Private Competitor Institutions



Conclusion

The increased competition that LWC is facing from public institutions is reflective of a trend that has occurred in American higher education over the past 20 years. Ehrenburg (2006) argued that as state appropriations per student have decreased, public institutions have begun to operate more like private institutions. Public institutions are increasing tuition and fees at rates similar to their private counterparts and are offering more financial aid to students. Flagship institutions, like the University of Kentucky, have benefited the most from the diminishing gap between public and private institutions, as students attending flagship institutions are less price sensitive compared with their counterparts attending a traditional public institution.

Data derived from the Student Tracker system allowed the project team to identify LWC’s top five competitors, as well as several other public and private competitor institutions. While LWC competes with private institutions, in particular with Campbellsville University, its primary competitors consist of public institutions. LWC can no longer afford to focus its competitive strategies solely on Campbellsville University

and marketing strategies should be developed to position the college favorably among private and public institutions.

Affording a college education is a challenge for most students in Kentucky as evidenced by the state's grade of an "F" on affordability in the 2008 national Measuring Up Report Card. This is troublesome for LWC, as 15% of Kentucky's total students attend private institutions, compared with 43% at public 4-year institutions, and 39% at 2-year institutions (National Center for Public Policy and Higher Education, 2008). The report indicated that lower income families must devote 39% of their income, even after aid, to pay for the costs of attending a public 4-year college (National Center for Public Policy and Higher Education, 2008). As public institutions respond to the need to increase access for lower socioeconomic and first-generation students, private institutions like LWC will be required to develop and implement marketing strategies to secure their competitive advantage in the marketplace.

Marketing Mix: Comparisons and Perceptions

The project team was charged with assessing LWC's marketing strengths, weaknesses, opportunities, and threats relative to its "true" competitors. In addition, LWC's administrators expressed a desire to gain further insights into how the institution was perceived by students. Based on LWC's top five competitor institutions, the project team utilized a variety of data sources to inform the strategic marketing analysis. Comparisons and analyses of LWC and competitor institutions were formed by gathering information from a combination of national data sources, institutional data sources, and data that the project team gathered through surveys and student interviews.

Competitive Environment

In today's changing environment and economic conditions, it is essential for colleges and universities to ensure long-term viability through an emphasis on strategic market planning (Kotler & Murphy, 1981). Higher education in the United States is a fiercely competitive industry with more than 4,200 degree-granting institutions in 2008, an increase of 15.4% from 1995, competing to attract 18.3 million students (National Center for Education Statistics [NCES], 2008a). LWC fits Kotler and Fox's (1995) description of less selective private colleges and universities as "small and heavily tuition-dependent," with "limited state and federal support, and often strong church affiliations" (p.16). As a result, LWC competes primarily with one-third of all 4-year colleges for students, faculty, administrator, donors, and resources (Kotler & Fox, 1995).

Kotler and Murphy (1981) asserted that "most colleges and universities are not set up with a strategic planning capacity," but are "basically good at operations, that is, efficiently doing the same things day after day" (p. 470). Given the current global financial situation affecting colleges and universities, institutional leaders are called upon to adapt their organizations to ensure continued growth and success. Higher education is often referred to as a recession-proof industry, but the economic downturn is widespread and impacting both public and private institutions. It will become "perilous" for colleges and universities that fail to adapt to the fundamental changes occurring in the environment, especially as many institutions are "precariously financed and are becoming more costly to run each year" (Keller, 1997, p. 168). As LWC seeks to strengthen its

position among peer and competitor institutions, strategic marketing will play a pivotal role in assisting the institution manage “demographic changes, financial crises, and the need for structural and academic shifts” (Keller, 1983, p. 43).

Kotler and Fox (1995) stressed the importance of colleges and universities formulating a marketing strategy that will assist in identifying and developing an institution’s competitive advantage, which in turn will contribute to an institution’s success in attracting and retaining students. A marketing strategy was defined by Kotler and Fox as “the selection of a target market, the choice of a competitive position, and the development of an effective marketing mix to reach and serve the chosen market” (p. 163). A well-defined and structured marketing strategy will assist in developing and enhancing LWC’s competitive advantage. Porter (1980) contended that sustaining a competitive advantage—namely cost and differentiation—is fundamental to an institution’s competitive strategy and is achieved through creating and enhancing an institution’s value.

Conceptual Framework

The project team focused on LWC’s marketing position compared with its top five competitors—Campbellsville University, Eastern Kentucky University, Somerset Community College, University of Kentucky, and Western Kentucky University. Comparisons and analyses between the institutions were aligned with Kotler’s (2005) four Cs—customer value, customer costs, customer convenience, and customer communications. The four Cs are Kotler’s interpretation of the traditional marketing mix of the four Ps—product, price, place, and promotion. However, Kotler contended that the four Cs adopt a more customer-oriented approach than the sales-oriented approach indicative of the four Ps. As students and their families become more sophisticated and price sensitive during their college decision-making process, a customer-oriented approach allows institutions to “increase their effectiveness in attracting and serving students and in obtaining the resources they need” (Kotler & Fox, 1995, p. 28).

The marketing mix for a customer-oriented approach consists of customer value, customer costs, customer convenience and customer communications. Customer value refers to the programs and services that are made available by colleges and universities and positions the institution in the minds of the consumer relative to other educational institutions (Kotler & Fox, 1995). Customer costs include an institution’s level of tuition and fees and the appropriate levels of financial assistance. Students must contend with deciphering the true costs of attending an institution (tuition minus grants) from the publicized “sticker price” (St. John, 1994). Customer convenience includes the physical location of the institution, the character of its surrounding area, potential locale of future projects, and location of the institution relative to current and prospective student residences (Kotler & Fox, 1995). Finally, customer communications are tactical steps that colleges and universities employ to generate responses among target audiences relative to the institution’s strategic decisions on customer value, cost, and convenience (Sevier, 2003).

As primary “customers,” students and their perceptions of an institution’s marketing mix are important to consider. Institutional image, reflected in the perceptions of students,

can be assessed and developed within a marketing strategy (Ivy, 2001). Ultimately, in critical areas such as value, cost, convenience, and communications, colleges and universities gain a competitive advantage by differentiating themselves from other institutions (Porter, 1980).

The project team used Kotler's (2005) customer-oriented approach as a framework to inform the strategic marketing analysis and to answer the following project questions in Part I of the research project:

- How does LWC compare with competitor institutions on customer value, cost, convenience, and communications?
- How do students perceive LWC's marketing mix?
- What are LWC's competitive marketing strengths, weaknesses, opportunities, and threats?

Instruments That Informed the Marketing Mix Analysis

The project team made comparisons between LWC and its top five competitors using IPEDS data for 2007, information from institutional websites, marketing materials including college viewbooks, U.S. Census data, and LWC's Office of Institutional Research. Student perceptions of LWC's marketing mix were gathered through the Admitted Student Questionnaire (ASQ), the Enrolled Student Questionnaire (ESQ) (Appendix B), and qualitative interviews with enrolled freshmen students (Appendix C).

The ASQ and ESQ contained identical items related to aspects of the marketing mix, allowing for student comparisons to be made. The ASQ consisted of 65 open- and closed-ended items and was administered on October 6, 2008 by LWC's Office of Admissions to 760 admitted, non-enrolled students via e-mail. The response rate for the ASQ was 8% ($N = 60$), which was expectedly low given that the population had enrolled at other institutions. The ESQ was administered on October 22, 2008 to a population of 425 full-time freshmen students enrolled at LWC. The survey consisted of 133 open- and closed-ended items and resulted in a response of 60% ($N = 255$). The survey was administered in a computer lab on campus through Freshman Seminar courses and was subsequently e-mailed to all freshmen students.

Table 2 provides descriptive data for ASQ and ESQ respondents in comparison to LWC's total full-time freshman cohort for 2008-2009. ESQ respondents were representative of the total freshman population, except for the percentage of first-generation students. The project team attributes this difference to the possible discrepancies in students self-reporting educational levels of their parents compared with the accuracy of information reported on the Free Application for Federal Student Aid (FAFSA) application. Due to a lack of available data, the project team was unable to discern whether the ASQ respondents were representative of the total population of LWC's total full-time freshmen.

Table 2: Descriptive Data for ASQ and ESQ Respondents and Enrolled Freshmen

	Admitted Student Questionnaire (ASQ)	Enrolled Student Questionnaire (ESQ)	Total Full-Time Freshmen 2008-2009
<i>N</i>	60	255	425
Female	63%	60%	59%
Male	37%	40%	41%
Minority	17%	16%	21%
Residential	n/a	72%	65%
In-state residents	67%	80%	84%
First-generation	22%	36%	78%
Average number of institutions applied to	3.2	2.5	--
Average number of institutions admitted to	2.9	2.2	--

*“First generation student” is defined at LWC as neither of the student’s parents attended college, as indicated on the Free Application for Federal Student Aid (FAFSA).

The project team also conducted 28 qualitative interviews with a stratified random sample of enrolled freshmen students at LWC. The sample was stratified by a student’s residential status (resident vs. commuter) and whether students were first-generation or non-first-generation students. Thirty students were included in the sample and a response rate of 93% ($N = 28$) was attained. The ESQ and qualitative interviews also consisted of sections that informed Part II of the study on reducing student departure.

Marketing Mix Analysis

The marketing mix analysis is comprised of four categories based on Kotler’s (2005) four Cs—customer value, customer costs, customer convenience, and customer communications

Customer Value Comparisons

Customer value consists of academic programs, teaching pedagogies, support services, social programs, and the campus environment (Sevier, 2003). Institutions modify their value propositions, allowing for the attainment of institutional agendas, in addition to recognizing the programs and services that are meaningful to consumers (Sevier, 2003). As marketing strategies are developed, it is important to create a favorable institutional image that is not only appealing to consumers, but is also an accurate reflection of the institution (Ivy, 2001).

LWC’s academic offerings have expanded from three majors in 1988 to its current level of 20 majors and 19 pre-professional programs. Kotler and Fox (1995) emphasized the importance of institutions periodically reviewing their mix of educational offerings to ensure the fulfillment of the mission and vision of the institution, in addition to serving the demands of the current marketplace.

Table 3 represents information gathered from respective institutional websites; indicating the number of academic programs offered by LWC and their top five competitors. Clearly the public 4-year institutions—Western Kentucky University, University of Kentucky, and Eastern Kentucky University—provide more academic options for students, but Campbellsville University, a private competitor, also offers more academic programs than LWC.

Table 3: Academic Programs for 2008-2009

Institution	Academic Programs
Campbellsville University	41 undergraduate programs and 10 master's programs
Eastern Kentucky University	168 degree programs
Lindsey Wilson College	20 majors and 19 pre-professional programs
Somerset Community College	35 vocational and technical programs
University of Kentucky	200+ majors
Western Kentucky University	167 majors and minors

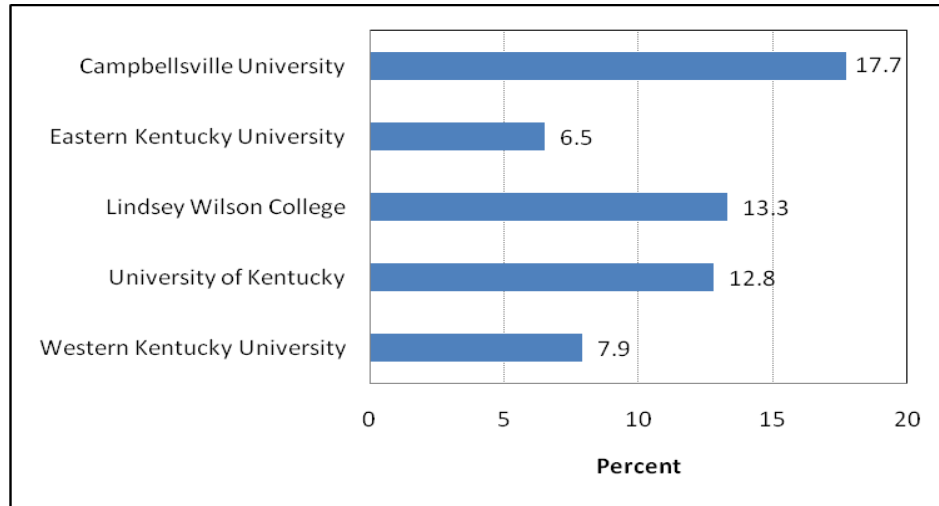
As LWC offers fewer degrees than their competitors, it is vital for institutional leaders to ensure that the quality of existing academic programs is not only maintained, but enhanced. However, the financial pressures compel many institutions, including LWC, to make difficult decisions regarding investments in certain programs and the market viability of others (Kotler & Fox, 1995). For LWC to develop and secure its competitive advantage in various academic programs, the institution must stay current with continual changes taking place in the macro-environment, consumer needs and interests, and strategies utilized by competitors.

NCES (2008c) reported that 1,485,000 bachelor's degrees were awarded in 2005-2006, with the largest number of degrees conferred in the fields of business (318,000), social sciences and history (161,000), and education (107,000). The business field saw an increase of 16% in degrees conferred from 1995-1996 to 2000-2001 and a further increase of 21% from 2000-2001 to 2005-2006. Social sciences experienced a 1% increase and 26% increase, respectively, during the same time periods. Education degrees remained relatively unchanged, reporting no increase from 1995-1996 to 2000-2001 and a 1.7% increase between 2000-2001 and 2005-2006. During the same time periods, the number of mathematics degrees declined by 12% and then rose significantly by 32%. Religious studies recorded a 30% increase in the number of degrees awarded between 2000-2001 and 2005-2006. A final statistic that illustrates the impact of the external environment on the demand for majors can be seen in the field of computer science. During the boom of Internet-based companies in the late 1990s, the number of degrees conferred in computer and information sciences soared by 80% between 1995-1996 and 2000-2001; however, that growth slowed down remarkably to an 8% increase between 2000-2001 and 2005-2006 (NCES, 2008c).

As academic programs are a prominent component of customer value, LWC was compared with competitor institutions in terms of the percentages of first-time degree/certificate seeking students within the 2006-2007 freshman cohorts who enrolled in three broad academic fields of study. These fields included Business Management and

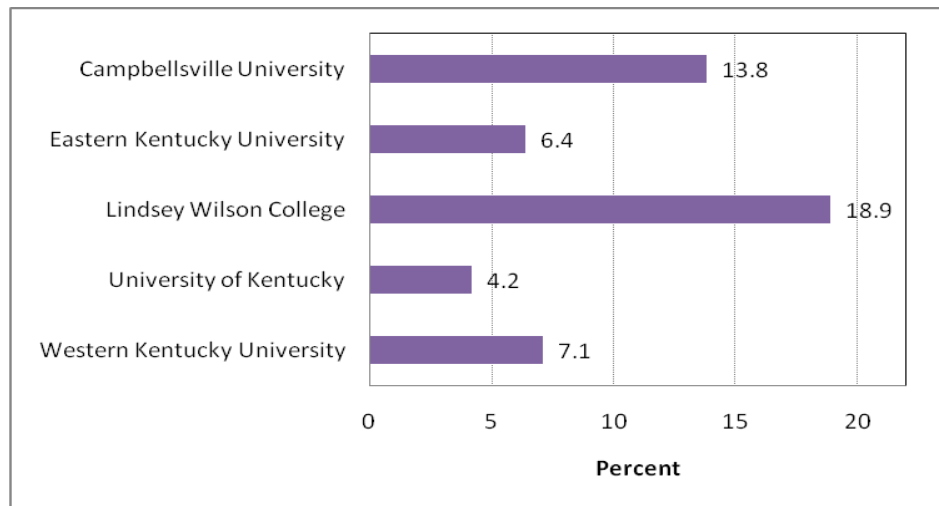
Administrative Services (Figure 5), Education (Figure 6), and Biological Sciences/Life Sciences (Figure 7). Somerset Community College was excluded from these comparisons as the available data did not allow for an adequate comparison.

Figure 5. The Percentage of First-Time Degree/Certificate Seeking Students in Business Management and Administrative Service



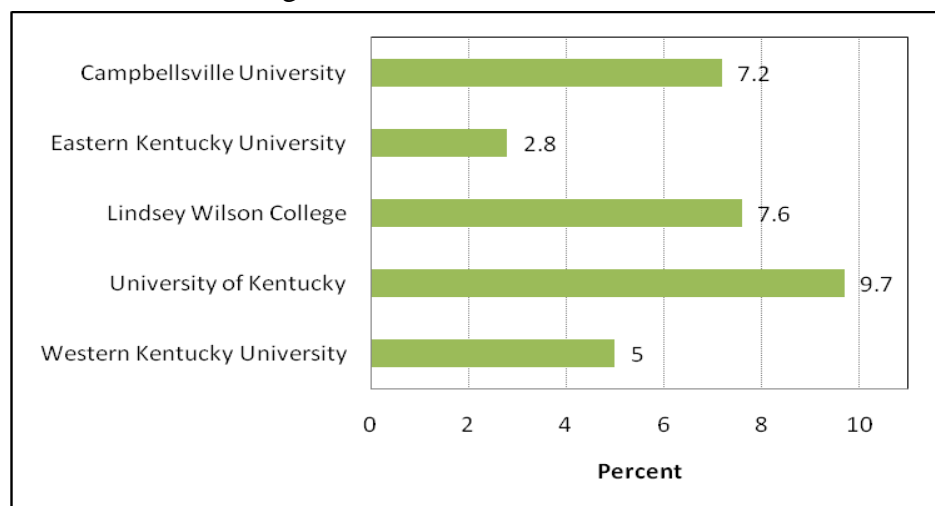
Source: National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS).

Figure 6. The Percentage of First-Time Degree/Certificate Seeking Students in Education



Source: National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS).

Figure 7. The Percentage of First-Time Degree/Certificate Seeking Students in Biological Sciences/Life Sciences



Source: National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS).

In two of the most prominent fields of degrees conferred in 2005-2006—business and education—the private institutions enrolled a higher percentage of first-time degree/certificate seeking students within freshman cohorts compared with their public counterparts. In Business Management and Administrative Services, Campbellsville University enrolled the largest percentage (17.7%), while LWC enrolled 13.3%. In Education, LWC enrolled the highest percentage (18.9%), which exceeds Campbellsville University’s enrollment of 13.8% and is far superior to the percentage of first-time degree/certificate seeking students enrolled in the public institutions. In Biological Sciences/Life Sciences, a field that is popular among LWC students, the University of Kentucky enrolled the highest percentage (9.7%), followed by LWC with 7.6%.

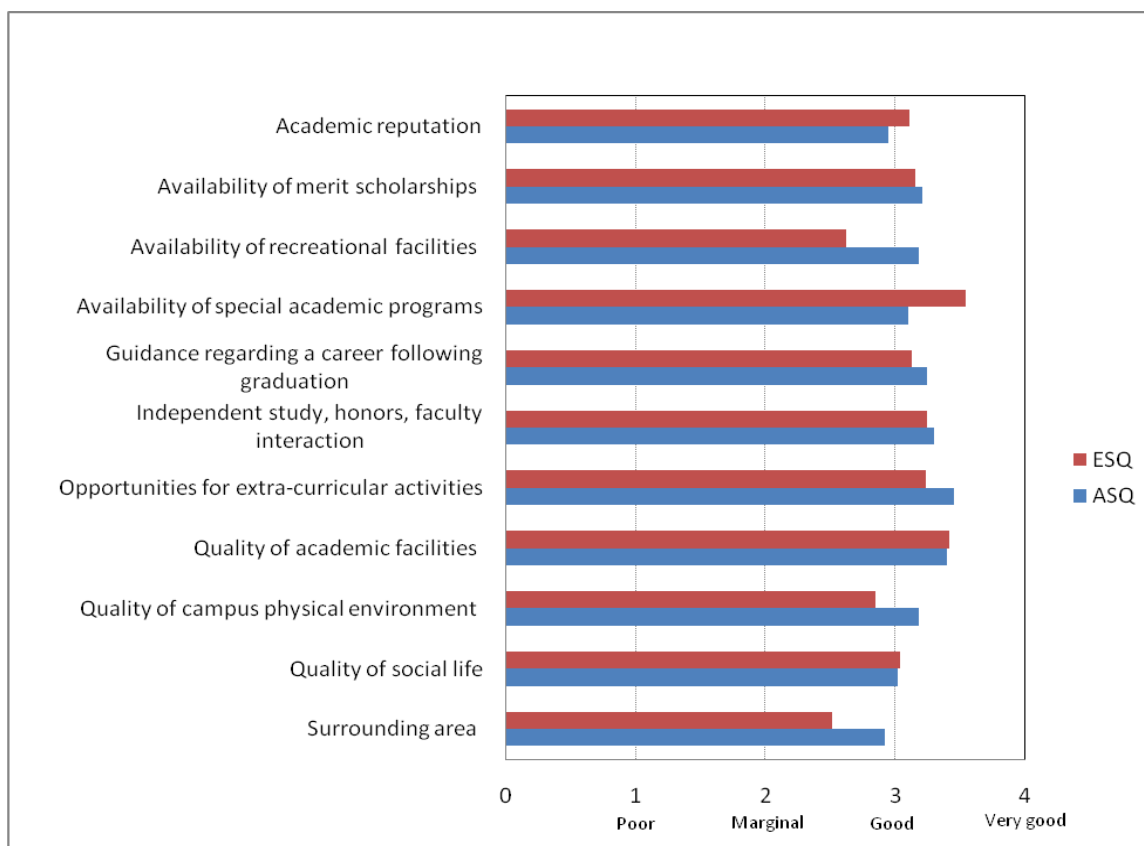
Data of this nature is important to LWC’s institutional leaders and faculty; particularly during budgetary discussions. LWC has been attracting a high percentage of freshmen students relative to its competitors in two of the most popular academic fields—business management and education—which would suggest a continuation or increase in resource allocation to these academic departments. Furthermore, the popularity of Biological and Life Sciences, housed in the new Fugitte Science Center, suggests an opportunity for LWC to enhance the institution’s value proposition within this academic field.

In addition to academic programs, the campus environment serves as an important aspect of customer value. LWC’s commitment to ensuring student growth and success was confirmed by the 2007 NSSE report in which LWC ranked nationally among the top 10% of colleges with a “supportive campus environment.” LWC’s culture has created an environment that is particularly supportive of underprepared students and is characterized by faculty and staff who are exceptionally friendly and supportive of the institution’s student body.

Student Perceptions of Lindsey Wilson College's Value

Student perceptions of LWC's value were gathered through the Admitted Student Questionnaire (ASQ), Enrolled Student Questionnaire (ESQ), and qualitative interviews. The ASQ and ESQ included 11 identical items, as displayed in Figure 8, to allow for multiple comparisons to be made between the respondents. *T*-tests for independent means were conducted between admitted, non-enrolled students and enrolled freshmen. Within admitted, non-enrolled students and enrolled freshmen, separate *t*-tests for independent means were conducted according to first-generation student status to examine significant differences in mean ratings. Statistically significant results were determined at a maximum probability level of $p \leq .05$.

Figure 8. Differences in Value Perceptions by Enrolled and Admitted, Non-Enrolled Students



It is interesting to note that enrolled freshmen students only rated LWC higher than admitted, non-enrolled students on two items: academic reputation and special academic programs. Academic reputation was rated higher by enrolled freshmen students (mean = 3.11) compared with admitted, non-enrolled students (mean = 2.95). However, the only statistically significant difference was in the availability of special academic programs ($p \leq .001$). Special academic programs at LWC include academic support services and pre-professional programs. The findings suggest that enrolled freshmen have a higher perception of LWC's ability to provide special academic programs (mean = 3.54) compared with admitted, non-enrolled students (mean = 3.1). Admitted, non-enrolled students rated three items significantly higher ($p \leq .01$) than enrolled freshmen. These

items included availability of recreational facilities on- and off-campus (mean = 3.18), surrounding area (mean = 2.92), and quality of campus physical environment (mean = 3.18). For these items, the means for enrolled freshmen students were 2.62, 2.51, and 2.85, respectively. While admitted, non-enrolled students did not choose to attend LWC, higher ratings in these particular areas may indicate the positive outcome of a campus visit. The differences in student perceptions between groups may result from enrolled freshmen having spent more time on campus prior to taking the survey than admitted, non-enrolled students. Appendix D provides a statistical table for these findings.

Both admitted, non-enrolled students and enrolled freshmen students were consistent in rating the quality of academic facilities as a strong attribute of LWC. The recent completion of the Fugitte Science Center is an example of a new academic facility that may have positively shaped student perceptions. This perception creates an opportunity for administrators and faculty to advance the college's value proposition.

With enrolled freshmen students, *t*-tests for independent means revealed significant differences in perceptions between first-generation students and non-first-generation students. First-generation students rated opportunities for extracurricular activities significantly lower (mean = 3.15) than non-first-generation students (mean = 3.32) at the $p \leq .05$ level. Bui (2002) found that first-generation students tend to know less about the social environment of a college and are more concerned about financial aid. First-generation students may also rate opportunities for extracurricular activities lower because they have difficulty identifying activities aligned with their interests. With LWC's high percentage of first-generation students, it is essential that students receive detailed information on the college's social and financial environment.

Student Perceptions of Value at Other Institutions

Admitted, non-enrolled students indicated through an open-ended item on the ASQ which institution they decided to attend and their rationale for choosing the institution. Some respondents provided more than one reason, which resulted in a total of 69 reasons. The project team coded these responses into 14 categories. The five most cited reasons, which include a tie for third, for attending another institution are:

- 1) Convenience to home or larger towns
- 2) Academic programs
- 3) Cost of attendance; financial aid awarded; and institutional size.

Convenience of an institution to a student's hometown or larger towns was the most frequent reason provided by admitted, non-enrolled students for attending another institution. Few students made a comparison with LWC in the open-ended response, but one student articulated:

Bellarmine University has a small campus. There is more one-on-one help with the professors. I loved Lindsey Wilson College but it was too far away for me.

Admitted, non-enrolled students also indicated that branch campuses were an important aspect that was taken into consideration during their college decision-making process. Furthermore, the proximity of larger towns creates a social and cultural outlet that students often deem an attractive feature. Academic programs were the second most cited reason for attending other institutions, with students indicating an interest in campuses with a wider variety of programs to choose from. Cost of attendance and financial aid were separate, but related reasons for attending other colleges. Many prospective students were price sensitive and were attracted to institutions offering generous financial aid packages. Larger campuses were also appealing to LWC’s admitted, non-enrolled students.

Student Perceptions of Lindsey Wilson College’s Strengths and Weaknesses

In addition to determining the reasons why admitted, non-enrolled students chose other institutions, Admitted Student Questionnaire (ASQ) respondents articulated what they perceived as the most attractive and least attractive feature of LWC, as seen in Table 4.

Table 4: Top Five Most and Least Attractive Features of LWC for ASQ Respondents

Most attractive features	Least attractive features
1. Sports programs	1. Cost, too expensive
2. Location, proximity to home	2. Small town, limited activities
3. Small size, family environment	3. Limited number of academic programs
4. Friendliness and helpfulness of staff	4. Residence halls outdated
5. Appearance of campus/quality of Faculty	5. Location, proximity from home

LWC’s sports programs ranked as the most attractive feature to admitted, non-enrolled students. Toma and Cross (1999) found that successful sporting programs often serve as an initial draw to an institution for students. LWC’s athletic website is far superior to the college’s main website, which may have a positive influence on student perceptions towards the athletic department.

It is particularly interesting to note that LWC’s location featured prominently on the list of most attractive and least attractive features. This could be attributed to students who live close to the institution rating location as attractive compared to students who live further away from campus rating LWC’s location as least attractive. Combined with the most prominent reason for attending another institution, convenience of location is reinforced as an important consideration for these students during the college decision-making process.

LWC’s institutional size combined with the friendliness and helpfulness of staff were two features that consistently emerged as a positive theme in student perceptions of value among admitted, non-enrolled students and enrolled freshmen. In the qualitative interviews, enrolled freshmen expressed a sense of comfort in a small environment, while describing larger campuses as “overwhelming” and “intimidating.” It was evident that students associated LWC’s small size with a safe campus, which is evidenced by the

statement, “I feel safer in a smaller environment.” LWC should capitalize on this perception to differentiate the college from larger, public competitors.

LWC’s admission counselors left a lasting impression on many students. Through the qualitative interviews, enrolled freshmen characterized LWC as a college where students receive “individualized attention” within a “small and personalized atmosphere.” Additionally, admitted, non-enrolled students expressed the following sentiments regarding experiences with LWC’s admission counselors:

I was initially attracted to Lindsey Wilson because it was close to home, but then after contacting them I found that their staff was absolutely amazing. I was kept up-to-date on how my financial aid application was going and they gave me very personal service.

All of the staff members that I met were extremely helpful and had great personalities. When I was on Lindsey Wilson's campus it felt like a home. Everyone on campus was so nice and any staff that I had met before recognized me.

According to LWC’s dean of admissions, admission counselors are committed to providing individualized attention and support to all students.² Admission counselors assist in completing a prospective student’s FAFSA and then submits it on behalf of the student. The counselors then provide students with continual updates regarding their application status and eligibility for financial aid. This level of service invokes positive perceptions of LWC among prospective students. Enrolled freshmen also commented on their positive relationships with LWC’s admission counselors through the qualitative interviews.

One of the admissions counselors really had an effect on me...I went and talked to her and I was undecided as to whether to go to college or not. She basically was like [student], you are so intelligent. I've seen your ACT scores, I've talked with you and you are so intelligent, you need to go to college...she just worked with me a lot more than a lot of the other admissions counselors at other colleges did.

The most commonly cited factor that was least attractive to admitted, non-enrolled students related to LWC’s cost of attendance. Despite the efforts of admission counselors to shape student perceptions on the institution’s costs, ASQ respondents had the perception that LWC is too expensive. This group of students also indicated the town of Columbia was small and offered a limited number of activities to participate in. For LWC, while its location is an attraction to some, it serves as a deterrent to others.

Additionally, ASQ respondents indicated that the freshmen residence halls were “old,” “outdated,” and “run down.” Admitted, non-enrolled students also indicated that the limited number of academic programs resulted in negative perceptions associated with

² Phone interview on December 15, 2008 with Traci Pooler, dean of admissions.

LWC. As previously noted, LWC has fewer academic programs compared with their top five competitors, but several admitted, non-enrolled students commented that a lack of variety in majors ultimately deterred them from attending LWC.

I felt that the majors were somewhat limited. There were many of the basic majors like Biology, English, and Education, but few majors that really traveled outside those circles. This was the main reason that I decided not to attend Lindsey Wilson College. I felt as though I would be trapped if I decided to change majors.

I did not like how there was not a wide variety of majors to choose from. Being an undecided student, I did not want to limit myself to the small amount of majors available.

Part of this perception about LWC's limited majors may stem from students valuing the flexibility to adjust their courses and majors according to the changing conditions in the marketplace. LWC is not in a position to cater to the academic demands of all students, so it is imperative that the academic fields offered are of the highest quality to ensure consumer satisfaction and assist in building the institution's reputation and prestige.

Customer Value Summary

Customer value is a critical component that LWC should include in its strategic marketing initiatives to differentiate the college from competitor institutions and enhance its position in the marketplace. While LWC's limited academic offerings are perceived as a weakness, the high percentage of students enrolling in business and education—two of the most popular academic fields—is encouraging to institutional leaders.

Enrolled freshmen students rated the availability of special academic programs significantly higher than admitted, non-enrolled students. Quality of academic facilities was seen by both admitted, non-enrolled students (mean = 3.40) and enrolled freshmen (mean = 3.41) as the highest rated attribute of LWC, which represents an area in which the college could use in marketing strategies to raise the institution's value proposition.

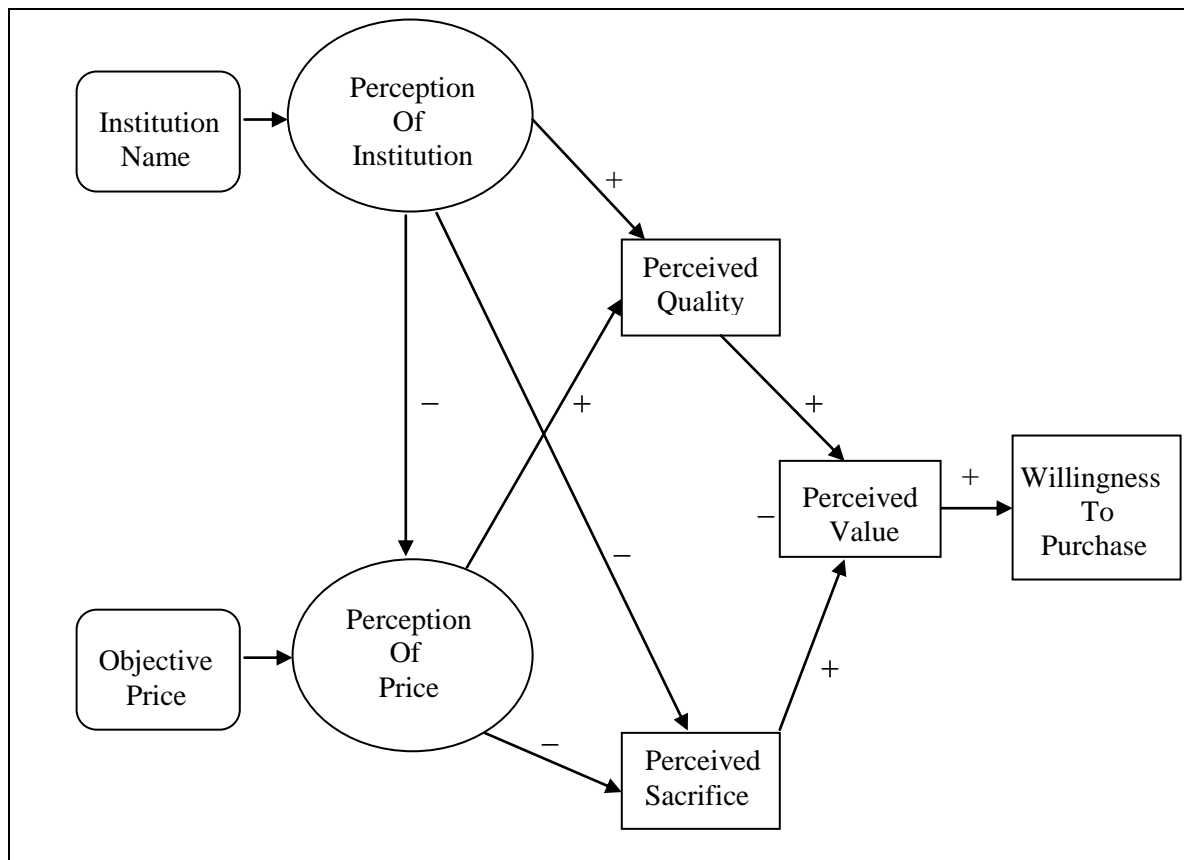
LWC's surrounding area received low ratings by both ASQ and ESQ respondents and presents a threat to LWC's perceived value. LWC faces the challenge of marketing the realities of its location in Adair County while managing the negative perceptions associated with the region. Customer convenience in terms of proximity of campus to a student's hometown and its location relative to larger cities was a prominent reason provided by admitted, non-enrolled students for attending another institution.

Both admitted, non-enrolled students and enrolled freshmen highly regard the helpfulness and friendliness of LWC's staff and the small, family-oriented environment of the college. These features provide institutional leaders with opportunities to differentiate LWC from larger and "impersonal" competitors.

Customer Cost Comparisons

It is incumbent upon institutional leaders to understand the relationship between price, institutional image, quality, consumer perceptions, and value when determining pricing policies (Dodds, 1991). Figure 9, adapted from Dodds' model on product evaluation, conceptualizes the effects of an institution's name and pricing policies on consumer perceptions of quality, value, and sacrifices, which in turn influences the college decision-making process (Dodds, 1991). In the minds of consumers, higher prices are typically associated with higher levels of quality (Lapovsky, 1999). This perception can lead to increased levels of willingness to pay an institution's published tuition and fees.

Figure 9: A Conceptual Model of the Effect of Price and Institution Name on College Choice



Source: Dodds (1991).

Higher prices may, however, result in consumers having to make sacrifices to attend the institution, which could lead to a decreased willingness to pay the institution's tuition and fees. The consumer's perceived quality of the institution is directly influenced by the institution's name and its pricing levels. Despite a consumer's perception that lower prices indicate an inferior institution, paying lower levels of tuition and fees could reduce the consumer's sacrifices; resulting in an increased willingness to attend a lower-priced institution (Dodds, 1991).

An institution's pricing strategy influences which students apply as the "sticker price" may prohibit certain students from applying, the type of students that enrolls, the institution's target market, the availability of resources, and the likelihood of the institution meeting enrollment goals (Kotler & Fox, 1995). While price is an integral component of the marketing mix, Kotler (2005) asserted that institutions should also focus on customer costs. Students not only consider monetary costs, but they are also faced with "effort costs, psychic costs, and time costs" (Kotler & Fox, 1995, p. 311). The complicated and time-consuming application process at certain institutions can serve as a deterrent for students, while the thought of moving away from home to attend a college or university can become stressful and challenging (Kotler & Fox, 1995). Additionally, many students will be required to participate in work-study jobs or seek employment off-campus to cover the costs associated with attending a college or university.

Price levels and the availability of financial assistance serve as vital factors during the college decision-making process for students and their families. The following analysis provides LWC with an understanding of how the institution's pricing and financial aid levels compare with its top five competitors. Table 5 compares tuition and fees and room and board fees between the institutions for 2008-2009. LWC's tuition and fees are noticeably higher than the public institutions, which is expected, but are 9.3% lower than its private competitor, Campbellsville University.

Table 5: Tuition and Fees, Room and Board for 2008-2009

Institution	Tuition and Fees 2008-2009	Room and Board 2008-2009
Campbellsville University	\$18,100	\$6,410
Eastern Kentucky University		\$5,900
- Resident	\$6,080	
- Non-resident	\$16,612	
- Targeted-out-of-state	\$9,596	
Lindsey Wilson College	\$16,555	\$6,925
Somerset Community College	\$2,904	\$6,952*
University of Kentucky		\$5,887
- Resident	\$7,736	
- Non-resident	\$15,884	
Western Kentucky University		\$5,990
- Resident	\$6,930	
- Non-resident	\$17,088	

Source: Institutional websites.

*Off-campus (not with family), Integrated Postsecondary Education Data System, 2006-07.

It is interesting to note that in addition to offering resident versus non-resident tuition differentiation, Eastern Kentucky University (EKU) also offers a "targeted-out-of-state" tuition. This fee structure is intended to bolster enrollment through an expanded outreach to students who live in designated counties within bordering states of Kentucky, have a

parent who graduated from EKU, or are high-ability students meeting certain academic criteria.³ Since room and board fees vary substantially depending on the type of campus residence, especially for public institutions, an average was calculated based on double occupancy for a traditional room, rather than a premium room. LWC's room and board fees are 8% higher than Campbellsville University and exceed the fees charged by all public institutions.

The cost for students investing in a college degree can serve as a significant deterrent during the college decision-making process. Costs that are considered by students include the direct costs of attendance (tuition and fees, room and board, books, and supplies), opportunity costs related to deferred earnings, and travel expenses between home and institution (Becker, 1993). Many students implicitly conduct a cost-benefit analysis to determine the feasibility and advantage of pursuing or continuing a college education. Table 5 reports tuition and fees in addition to room and board fees for 2008-2009; however, at the time of this report, the most current data available in IPEDS for data pertaining to federal, state, and local aid was for 2006-2007.

Therefore, Table 6 includes tuition and fees and room and board fees for 2006-2007; allowing the project team to calculate the net cost of attendance in 2006-2007 for freshmen students, in addition to the varying amounts of aid freshmen received through grants and loans. Net cost refers to the amount students paid to attend college, whereas the total price calculated in Table 6 refers to the amount institutions charged students. LWC's total price of \$23,851 is 3.1% less than Campbellsville University and 64.3%

Table 6: Estimated Price of Attendance in 2006-2007

Institution	Tuition & Fees	Room & Board	Books & Supplies	Other Expenses**	Total Price
Campbellsville University	\$15,960	\$5,932	\$800	\$1,900	\$24,592
Eastern Kentucky University	\$5,652	\$5,392	\$800	\$1,650	\$13,494
Lindsey Wilson College	\$14,438	\$6,163	\$700	\$2,550	\$23,851
Somerset Community College	\$2,616	\$6,750*	\$800	\$2,740	\$12,906
University of Kentucky	\$6,510	\$5,283	\$800	\$1,926	\$14,519
Western Kentucky University	\$5,952	\$5,296	\$800	\$1,600	\$13,648

Source: Integrated Postsecondary Education Data System, 2006-07; and institutional websites.

*Off-campus (not with family).

**Expenses for laundry, transportation, entertainment, and furnishings.

higher than the University of Kentucky, which had the highest total price of public competitors. As LWC enters discussions regarding price increases of tuition and fees and room and board, institutional leaders should remember that a "1% increase in the cost of attendance, yields a 0.19% decrease in the percentage of Pell Grant recipients" (Steinberg, Piraino & Haverman, 2009, p. 256). This has an adverse affect on the ability of lower income families to gain access to colleges and universities.

³ Retrieved November 20, 2008: <http://www.eku.edu/futurestudents/tuition.php>

For many students, the costs of attending a college or university are reduced through the availability of financial aid. Federal, state, and institutional student aid programs are designed to enhance higher education's accessibility and affordability for all students and improve the likelihood of student persistence (Stampen, 1980). However, rising tuition levels and declining state support is limiting opportunities for "qualified students from middle- and lower-income families" to gain access to both public and private postsecondary institutions (Steinberg et al., 2009, p. 235). According to the Advisory Committee on Student Financial Assistance (2002) there are approximately 400,000 academically qualified, low-income students each year that do not attend college or university.

Financial aid is awarded to students with financial limitations, in addition to students with athletic and academic abilities (Doyle, 2006). An extraordinarily high percentage of freshmen students at LWC and their competitors receive some form of aid. Table 7 indicates that in 2006-2007, 100% of freshmen students at LWC and Campbellsville University received some form of aid, while more than 90% of students at the public institutions were also recipients of aid. Wilkinson (2005) suggested that the predominant aid for students is need-based aid; however, institutions are "sweetening" their financial aid packages with increased levels of merit aid to lure the best and brightest to their institutions.

Table 7: Freshmen Receiving Aid in 2006-2007

Institution	Freshmen	Receiving Aid	
	N	N	%
Campbellsville University	334	334	100
Eastern Kentucky University	2,433	2,315	95
Lindsey Wilson College	384	383	100
Somerset Community College	914	828	91
University of Kentucky	4,118	3,758	91
Western Kentucky University	3,128	2,956	95

Source: Integrated Postsecondary Education Data System, 2006-07.

While a high percentage of students at all of the Kentucky institutions received some form of aid, Table 8 indicates the proportion of students who qualified for federal grants. Somerset Community College enrolled the largest percentage of students receiving federal grants (75%), followed by LWC with 60%. Western Kentucky University received the largest amount of federal grant aid per freshman cohort (\$3,352,734); however, of the freshman students eligible for federal grants, students at Somerset Community College and LWC received on average, the highest amounts of federal grants, \$4,172 and \$3,675, respectively. When compared with Somerset's high average federal grant aid per freshman (\$3,122), the low average federal grant aid per freshman at the University of Kentucky (\$529) is expected as only 16% of students were eligible for federal grant aid.

Table 8: Freshmen Receiving Federal Grants in 2006-2007

Institution	Freshmen	Receiving Federal Grants		Total Federal Grants	Average Federal Grant per Recipient	Average Federal Grant
	N	N	%			
Campbellsville University	334	162	49	\$552,906	\$3,413	\$1,655
Eastern Kentucky University	2,433	800	33	\$2,667,200	\$3,334	\$1,096
Lindsey Wilson College	384	230	60	\$845,250	\$3,675	\$2,201
Somerset Community College	914	684	75	\$2,853,648	\$4,172	\$3,122
University of Kentucky	4,118	669	16	\$2,178,933	\$3,257	\$529
Western Kentucky University	3,128	1,062	34	\$3,352,734	\$3,157	\$1,072

Source: Integrated Postsecondary Education Data System, 2006-07.

Students and families are fortunate to benefit from a variety of federal programs that assist in financing the costs of higher education. In addition to federal programs, students in financial need may also benefit from state and local grant aid. Eligibility for federal, state, and local aid is dependent on the student's expected family contribution (EFC), the costs of attending a particular institution, whether the student attends the institution full-time or part-time, and whether the student attends the institution for a full academic year or less (Steinberg et al., 2009, p. 236).

Table 9 indicates that more than two-thirds of freshmen students at all the institutions, other than Eastern Kentucky University, received state and/or local grant aid. LWC accounted for the largest percentage of freshmen students receiving state and local grants (86%). Western Kentucky University received more state and local grants (\$6,162,072) than the other institutions, but of those students receiving state and local grants, students

Table 9: Freshmen Receiving State/Local Grants in 2006-2007

Institution	Freshmen	Receiving State/Local Grants		Total State/Local Grants	Average State/Local Grant per Recipient	Average State/Local Grant
	N	N	%			
Campbellsville University	334	282	84	\$1,205,550	\$4,275	\$3,609
Eastern Kentucky University	2,433	573	24	\$932,271	\$1,627	\$383
Lindsey Wilson College	384	330	86	\$1,483,350	\$4,495	\$3,863
Somerset Community College	914	633	69	\$1,113,447	\$1,759	\$1,218
University of Kentucky	4,118	3,079	75	\$6,010,208	\$1,952	\$1,459
Western Kentucky University	3,128	2,559	82	\$6,162,072	\$2,408	\$1,970

Source: Integrated Postsecondary Education Data System, 2006-07.

at LWC received on average, the highest amount of grant aid (\$4,495). Furthermore, the average state and local grant aid per freshman is highest at LWC (\$3,863), followed by Campbellsville University (\$3,609).

In addition to a high percentage of freshmen students at LWC receiving federal, state, and local grant aid, a majority of LWC students also received institutional aid. Institutional aid is often utilized by colleges and universities to attract the highest quality students and to meet specified enrollment goals (Steinberg et al., 2009). Table 10 indicates that the private institutions—LWC and Campbellsville—had the highest percentages of students receiving institutional grants with 99% and 98%, respectively. The public institutions offered institutional aid to a considerably smaller percentage of students, ranging from 25% (Western Kentucky) to 44% (Eastern Kentucky), while Somerset Community College only offered institutional grants to 3%.

The University of Kentucky offered a larger total amount of institutional aid (\$8,497,824) compared with the other institutions; however, Campbellsville University provided their students receiving institutional aid with the highest average amount per student of \$6,704—which is 9.6% higher than the average amount received by students at LWC. Institutional grants are often used by higher priced private institutions to attract high ability students that may be considering attending a public institution. The disparities in the average institutional grant per recipient among the public institutions is evident, with the University of Kentucky providing the highest average amount of institutional grants and Somerset offering the lowest. Despite LWC awarding a higher total of institutional grant aid (\$2,330,196) compared with Campbellsville University (\$2,185,504), Campbellsville's average institutional grant per freshman of \$6,543 is higher than LWC's (\$6,068).

Table 10: Freshmen Receiving Institutional Grants in 2006-2007

Institution	Freshmen	Receiving Institutional Grants		Total Institutional Grants	Average Institutional Grant per Recipient	Average Institutional Grant
	<i>N</i>	<i>N</i>	%			
Campbellsville University	334	326	98	\$2,185,504	\$6,704	\$6,543
Eastern Kentucky University	2,433	1,067	44	\$938,960	\$880	\$386
Lindsey Wilson College	384	381	99	\$2,330,196	\$6,116	\$6,068
Somerset Community College	914	25	3	\$49,275	\$1,971	\$54
University of Kentucky	4,118	1,394	34	\$8,497,824	\$6,096	\$2,064
Western Kentucky University	3,128	777	25	\$3,245,529	\$4,177	\$1,038

Source: Integrated Postsecondary Education Data System, 2006-07.

Despite LWC's tuition and fees (\$14,438) being 122% higher than the University of Kentucky (\$6,510), the average institutional grant per recipient at the University of Kentucky is only \$20 less than the amount LWC's students receive. Similarly, in

comparison with Western Kentucky University, LWC's tuition and fees are 143% higher, yet its average institutional grant per recipient is only 46% higher than Western Kentucky's.

Table 11 illustrates variations in the average grants received by freshmen at the respective institutions. Students at LWC received, on average, 2.8% more than their peers at Campbellsville University. While there is a distinct gap in the average grant per student between private and public institutions, it is interesting to note that despite Somerset Community College offering students minimal assistance in institutional grants (\$54), its students, on average, received more grants in total (\$4,394) compared with students attending the other public institutions; particularly those attending Eastern Kentucky University who only received \$1,865 in total grants.

Table 11: Average Freshman Grants Received in 2006-2007

Institution	Average Federal Grant	Average State/Local Grant	Average Institutional Grant	Average Grant
Campbellsville University	\$1,655	\$3,609	\$6,543	\$11,807
Eastern Kentucky University	\$1,096	\$383	\$386	\$1,865
Lindsey Wilson College	\$2,201	\$3,863	\$6,068	\$12,132
Somerset Community College	\$3,122	\$1,218	\$54	\$4,394
University of Kentucky	\$529	\$1,459	\$2,064	\$4,052
Western Kentucky University	\$1,072	\$1,970	\$1,038	\$4,080

Source: Integrated Postsecondary Education Data System, 2006-07.

As the total price of attending colleges and universities continues to rise and the maximum Pell Grant for 2008-2009 totals \$4,731 (National Association of Student Financial Aid Administrators [NASFAA], 2008), the amount of aid students receive is becoming increasingly important during the college decision-making process. Unfortunately, students from lower-income families must contend with a disconcerting trend that has emerged over time. According to Cornwell and Mustard (2001), there has been a growing movement since the early 1990s that has connected financial aid to academic performance without considering student financial need. Heller (2006) indicated that state governments and higher education institutions have led this shift with the federal government making gradual adjustments in the same direction.

Table 12 combines an institution's total price—what institutions charged students—with the average grant per freshman to determine the average net cost—what students paid to attend an institution. Campbellsville University reported the highest average net cost at \$12,785, which is 9% higher than LWC's average net cost of \$11,719. Somerset Community College had the lowest average net cost (\$8,512), which is 38% lower than LWC's. Among the public institutions, Western Kentucky University had the lowest average net cost of \$9,568, which is 22% lower than LWC's. Furthermore, LWC had the highest percentage of total price covered by grants (51%), followed by Campbellsville with 48%.

Table 12: Freshman Net Cost of Attendance in 2006-2007

Institution	Total Price	Average Grant	Average Net Cost
Campbellsville University	\$24,592	\$11,807	\$12,785
Eastern Kentucky University	\$13,494	\$1,865	\$11,629
Lindsey Wilson College	\$23,851	\$12,132	\$11,719
Somerset Community College	\$12,906	\$4,394	\$8,512
University of Kentucky	\$14,519	\$4,052	\$10,467
Western Kentucky University	\$13,648	\$4,080	\$9,568

Source: Integrated Postsecondary Education Data System, 2006-07.

As net costs continue to escalate in higher education, the probability of lower socioeconomic students attending a college or university diminishes, while those students from lower socioeconomic families wanting to attend a college increasingly find their choices limited, often to community colleges (McPherson & Shapiro, 1997). Despite LWC offering the highest average aid per student among the institutions in 2006-2007, prospective and current students were able to earn a degree for less at the public institutions, especially at Somerset Community College.

A further shift in the financial aid system from need-based grants to one that is dominated by loans has resulted in 56% more students receiving federal subsidized loans than a decade ago (Burdman, 2005). Table 13 illustrates the high percentage of freshmen students who used loans to finance their education. At LWC, 99% of students received aid in the form of student loans. While the University of Kentucky had the highest total loans (\$7,148,262), of those students who received loans, LWC's students received the highest average loan (\$6,217); an amount 29% higher than loans received by students at Campbellsville University.

Table 13: Freshmen Receiving Loans in 2006-2007

Institution	Freshmen	Receiving Loans		Total Loans	Average Loan per Recipient	Average Loan
	<i>N</i>	<i>N</i>	%			
Campbellsville University	334	197	59	\$950,525	\$4,825	\$2,846
Eastern Kentucky University	2,433	1,211	50	\$3,840,081	\$3,171	\$1,578
Lindsey Wilson College	384	381	99	\$2,368,677	\$6,217	\$6,168
Somerset Community College	914	294	32	\$1,078,392	\$3,668	\$1,180
University of Kentucky	4,118	1,518	37	\$7,148,262	\$4,709	\$1,736
Western Kentucky University	3,128	1,466	47	\$5,944,630	\$4,055	\$1,900

Source: Integrated Postsecondary Education Data System, 2006-07.

Burdman (2005) asserted that as “grant programs fail to match tuition increases, more students are borrowing, and they are borrowing more” (p. 2). The increasing availability of low-interest loans is expanding options for certain students; however, the “increasing prominence of loans could actually narrow [student] options and decrease [student] chances of attending and completing college,” given that many students who take out loans attend college part-time, work more than 20 hours per week while in college, or enroll in 2-year institutions over 4-year institutions (Burdman, 2005, p. 2). Many of LWC’s students not only take out loans, but also work while attending college.

Student Perceptions of Financial Aid

Through financial aid, institutions strive to make college attendance more affordable while creating favorable perceptions of the institution’s cost of attendance. Financial aid, including merit scholarships, was perceived by over 80% of both admitted, non-enrolled students and enrolled freshmen students as a significant factor in their college decision-making process, as seen in Figure 10. This perception reiterates the price sensitivity and financial need of LWC’s prospective and current students.

Figure 10. Percentage of ASQ and ESQ Respondents Receiving Offers of Financial Aid

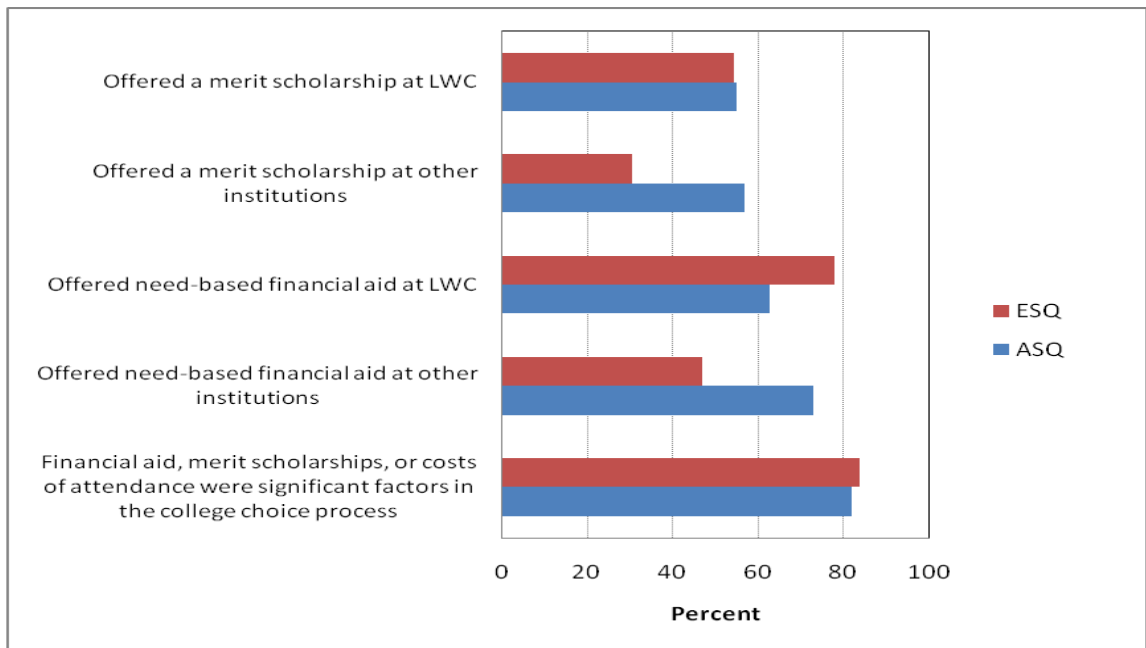


Figure 10 displays the percentages of admitted, non-enrolled students and enrolled freshmen reporting the types of financial aid that were offered to them by LWC and other institutions. Chi square statistical tests revealed significant differences between the two groups. ASQ respondents reported more offers of both merit-based (57%) and need-based financial aid (73%) at other institutions ($p \leq .001$). However, chi square results indicated a significantly higher frequency (78%) reported by enrolled freshmen of need-based aid offered at LWC ($p \leq .05$). An almost identical percentage of both groups reported offers of merit-based financial aid at LWC. In spite of a higher percentage of students reporting offers at other institutions in both types of aid, 53% of ASQ

respondents indicated that LWC offered them a more generous financial aid package than the institution they decided to attend.

Customer Cost Summary

Customer costs are a critical part of the marketing mix and overlap with customer value. Pricing strategies have a direct influence on a student's willingness to attend or remain at an institution, but perceived costs often outweigh an institution's perceived value. LWC competes with other institutions on costs, but will have to increase institutional grants to attract higher ability students.

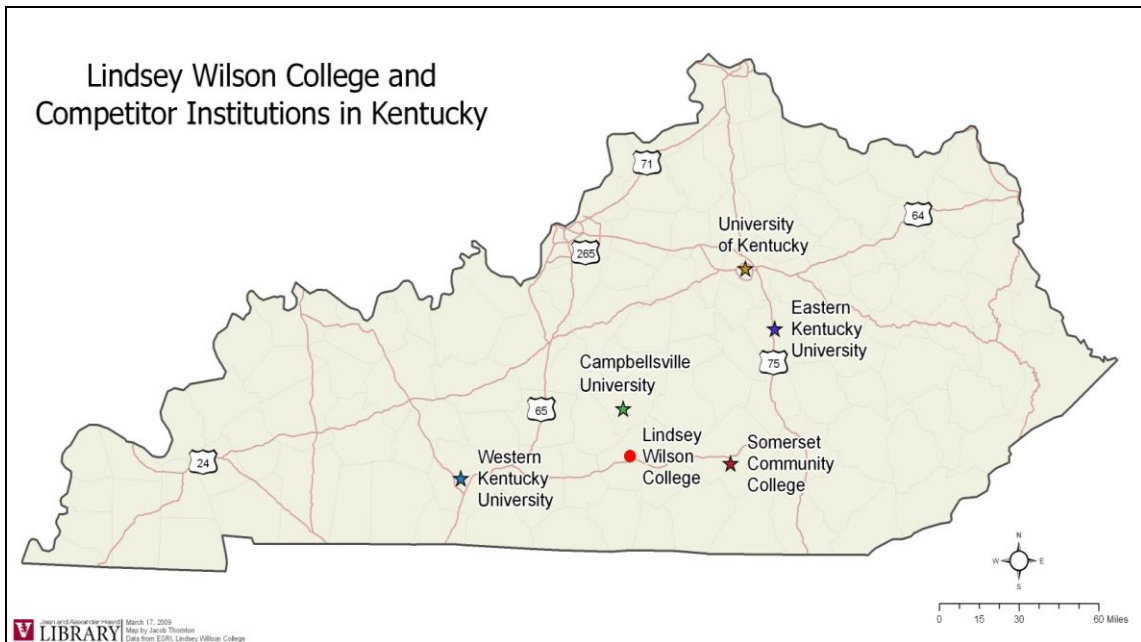
While LWC strives to cover a high percentage of financial needs for freshmen, Minter (1978) stresses the importance of institutional leaders periodically conducting financial assessments to ensure the institution's "financial health." In discussions with LWC's Office of Institutional Research, the project team discovered that 32% of the institution's overall budget in 2008 was devoted to financial aid. Institutional leaders should be cautious about discounting tuition to compete with less expensive public institutions.

A vast majority of admitted, non-enrolled students and enrolled freshmen students perceive financial aid as a significant factor in their college decision-making process. While ASQ respondents reported that LWC offers a more generous financial aid package, a higher percentage reported offers of merit-based and need-based aid at other institutions compared to ESQ respondents. As a result, LWC cannot afford to only compete on costs and should begin to focus on aspects of the institution's value proposition on which it can begin to compete.

Customer Convenience Comparisons

While customer convenience can serve as a powerful component for an institution to attract students, simultaneously it can have an adverse affect on an institution's enrollment. The main aspects of customer convenience include an institution's physical location, character of the surrounding area, locale of future projects, and its location relative to prospective students (Kotler & Fox, 1995). Customer convenience is an important aspect of the marketing mix for LWC given the characteristics of Adair County, the demographics of prospective students, and the institution's mode of education delivery.

Compared with its competitors, particularly to the public institutions, LWC's location in Adair County offers students fewer cultural, social, or academic enrichment opportunities. The rural town of Columbia is a family-oriented community where church activities frequently serve as the focal point for community members. The opening in October 2008 of a Wal-Mart Supercenter in the town has been welcomed as a social outlet and economic benefit by students, faculty, staff, and community members. Taylor County—the location of Campbellsville University—has similar characteristics to Adair County. However, it has a larger population, a higher concentration of businesses, and increased entertainment options. Both Adair and Taylor Counties fall short of the expansive cultural, social, and academic opportunities that Fayette (University of Kentucky), Warren (Western Kentucky University), and Madison (Eastern Kentucky University) counties offer. The location of these institutions is displayed in Figure 11.

Figure 11. LWC and Competitor Institutions in Kentucky

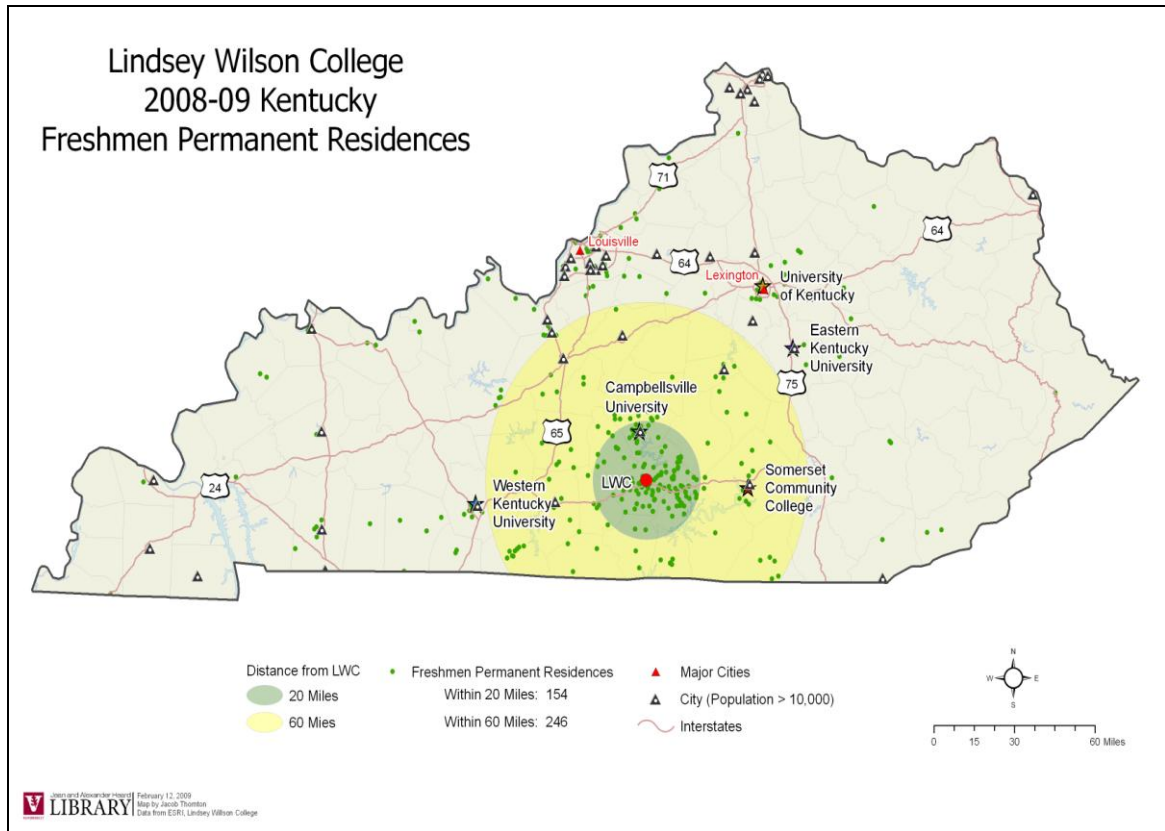
LWC's top five competitors are all located within 100 miles of campus. However, unlike LWC, all top five competitor institutions are located within cities with populations of 10,000 or greater (Census Bureau, 2007). Admitted, non-enrolled students and freshmen students participating in the qualitative interviews articulated that a disadvantage of LWC pertains to its rural location. One of the distinct challenges that isolated institutions, like LWC, encounter is being able to create cultural and social activities, develop traditions, and build a campus community in which students can become involved and engaged with.

Institutional leaders at LWC are cognizant of the adverse impacts that its locale may have on prospective and current students and have consequently embarked on an expansion of campus facilities. Groundbreaking took place in May 2008 on a 4,000 square-foot addition to the Sumner Campus Ministry Center; a 73,223 square-foot health-and-wellness center, and an athletic complex that includes a baseball-softball complex and a multi-purpose outdoor stadium that will accommodate football, a marching band, and track and field programs. These new facilities are intended to compliment the institution's mission by providing an enriched living-learning environment. These additions are intended to enhance the value of LWC's location for prospective and current students.

Admission counselors have been most successful at enrolling students who live within LWC's surrounding areas. Figure 12 highlights the concentrated percentage of LWC's 2008-2009 enrolled freshmen students who have permanent residences within a close proximity of campus. A total of 356 of LWC's freshmen Kentucky residents were plotted on a map using home addresses provided by the Office of Institutional Research. Two concentric circles with radii of 20 and 60 miles from LWC indicate that 43% of Kentucky residents in the 2008-2009 freshman cohort live within 20 miles of campus,

while a total of 69% live within 60 miles. This suggests that LWC is most effective at marketing and matriculating students who live near campus.

Figure 12. Permanent Residences of LWC Kentucky Freshmen



The project team's findings coincide with the results from a study by Hardwick-Day (2005), who indicated that 38% and 28% of LWC freshmen students reside within 20 miles of campus and between 20 and 60 miles of campus, respectively. A national study conducted in 1996 found that the average distance a student traveled from home to attend college was 71 miles (JBHE Foundation [The Journal of Blacks in Higher Education], 1996). Long (2004) posited that "tuition and distance have a negative impact on the likelihood that a low-income individual will choose a particular college" (p. 48). These studies have confirmed a direct correlation between family income and the distance student's travel to a college or university. Lower-income students who come from families making less than \$20,000 travel, on average, fewer than 45 miles to attend college; higher-income students whose families make more than \$200,000 travel on average up to 258 miles to attend college (JBHE Foundation, 1996).

The confluence of factors associated with LWC's location has created an intense competitive arena from which to attract students. Kentucky residents make up 84% of LWC's freshman student population. A large percentage of these students come from Adair and surrounding counties, while LWC's top competitor institutions are in close proximity to campus. These factors combined with evidence suggesting that students

place a high priority on LWC's customer convenience, present significant challenges for the institution to attract and retain students in the future.

Table 14 displays some adverse conditions LWC contends with given Adair County's profile compared with conditions competitors encounter in their respective counties. Unfortunately, for LWC, Adair County does not fare well in the four categories highlighted in Table 14. In *General Population Data*, Adair County had the lowest total population and median household income and, relative to total population, the highest percentage of residents living in poverty. Adair County had the second highest unemployment rate. *Highest Level of Education* indicates that Adair County residents may not place a high value on obtaining a baccalaureate degree since there are only

Table 14: County Profiles

	Taylor County (CU)	Madison County (EKU)	Adair County (LWC)	Pulaski County (SCC)	Fayette County (UK)	Warren County (WKU)
General Population Data						
Total population	22,927	70,872	17,244	56,217	260,512	92,522
Median household income	\$28,089	\$32,861	\$24,055	\$27,370	\$36,813	\$36,151
Living in poverty	17.5%	16.8%	24.0%	19.1%	12.9%	15.4%
Unemployment rate	4.9%	4.8%	5.7%	6.5%	4.3%	4.8%
Highest Level of Education						
Some college but no degree	14.9%	19.2%	14.4%	15.6%	21.4%	19.5%
Bachelor's degree or higher	12.2%	21.8%	10.9%	10.5%	35.6%	24.7%
Education Pipeline						
High school graduates in 2006	272	646	155	580	2,221	1,002
Bachelor's degree six-year graduation rate for 2006	40.0%	39.6%	50.0%	57.6%	52.3%	47.4%
College Readiness						
Average ACT score	20.3	21.5	19.5	20.9	22.7	21.2
Percent entering college with developmental needs in one or more subjects	34.8%	51.5%	62.9%	48.6%	41.8%	49.3%

Source: Kentucky Council on Postsecondary Education.

14.4% of residents who have some college but no degree and only 10.9% of the residents have a bachelor's degree or higher. In the *Education Pipeline*, Adair County had the lowest number of high school graduates in 2006 (155), while posting the third highest 6-year graduation rate for a bachelor's degree (50%). Unfortunately, Adair County did not prominently featured in the *College Readiness* category, having posted the lowest average ACT score (19.5) and featuring the highest percentage of students entering college with developmental needs in one or more subjects (62.9%). All of these conditions have significant ramifications for LWC's enrollment and retention efforts.

Location and Affordability

The college affordability index was calculated for the respective institutions by combining median household income from Table 14 with average net costs in Table 12. The affordability index reported in Table 15 should be interpreted with caution; given totals used for median household income are based on the entire county in which the institution is located. However, with 24% of LWC freshmen students from Adair County in 2008⁴ and 58% from counties—many of which have similar median household incomes to Adair County—within 60 miles of campus⁵, the college affordability index for LWC provides an accurate estimate of the relative cost of attending the institution.

Table 15: Affordability Index for LWC and Competitors

Institution	Average Net Cost	Median Household Income	Affordability Index
Campbellsville University	\$12,785	\$28,089	45.5%
Eastern Kentucky University	\$11,629	\$32,861	35.4%
Lindsey Wilson College	\$11,719	\$24,055	48.7%
Somerset Community College	\$8,512	\$27,370	31.1%
University of Kentucky	\$10,467	\$36,813	28.4%
Western Kentucky University	\$9,568	\$36,151	26.5%

The affordability index indicates the proportion of family income needed to cover the net cost of attending an institution. LWC is the least affordable of the institutions, given its net cost is 48.7% of median family income. Campbellsville University trails LWC with an affordability index of 45.5%, while Western Kentucky University had an affordability index of 26.5%. If families are to afford the costs of their student attending college, families of LWC need to pay a higher proportion of family income to cover the net cost of LWC compared with families of students attending the other institutions.

Demand for Distance Education

Kotler (2005) suggested that in today’s fast-paced environment it is imperative that colleges and universities focus on customer convenience. The demographic profile of first-year students is changing—an increasing number of older students are entering college compared to their younger counterparts—with 28% of all undergraduates representing the age group of 25 years and older (Crissman Ishler & Upcraft, 2005). While educational costs play a factor in determining convenience for potential students, it is increasingly important for institutions to accommodate non-traditional students.

As LWC looks to fulfill its mission of “every student, every day,” the ability to offer distance education courses is essential. LWC currently offers only one distance education course.⁶ Balancing demanding class and work schedules, coupled with continual technological advancements, has resulted in a growing percentage of students

⁴ According to LWC’s Office of Institutional Research.

⁵ Obtained using ArcMap.

⁶ According to LWC’s Office of Institutional Research.

participating in online courses. During 2006-2007, 89% of public 4-year institutions and 70% of private 4-year institutions offered some form of distance education (Parsad & Lewis, 2008). Distance education is offered as a means for colleges and universities to reach new target audiences to increase enrollments and enhance customer convenience (Wirt et al., 2004).

Student Perceptions of Customer Convenience

Perceptions of LWC's customer convenience were derived from open-ended items on the Admitted Student Questionnaire and through qualitative interviews with LWC's enrolled freshmen students. Admitted, non-enrolled students indicated that the top reason for attending other institutions was customer convenience, which included the institution's proximity from a student's home and its location in relation to major cities. LWC's location plays an influential role during a student's college decision-making process. Students who live further than 60 miles from campus reported distance had a negative impact on their consideration of LWC. The prominence of LWC's location is highlighted by the following comments from admitted, non-enrolled students:

I did not visit the campus, but I was very interested in a school which was close to major cities. The only person I knew at Lindsey Wilson College told me the hang-out was Wal-Mart, which was detracting.

The only factor that turned me away from Lindsey Wilson College was the location. From my home in Louisville, it was an hour and a half drive.

Customer convenience has a high value among LWC's target market. The first comment indicates students have preconceived notions of where they want to attend college or university. While an institution's location will always appeal to some students and not to others, it is important that LWC adopt marketing strategies that highlight the advantages of the college's location and environment.

A consistent theme that emerged through the qualitative interviews with enrolled freshmen was the high value students and parents placed on LWC's proximity to their home. While proximity surfaced as an important factor for students to consider during their college decision-making process, it appeared an even greater concern for parents. On multiple occasions, student's indicated their parents had strongly encouraged them to attend an institution close to home, while emphasizing the limitations of attending a college or university away from home.

Customer Convenience Summary

LWC's top five competitors all lie within 100 miles of its campus and LWC enrolls a high percentage of freshmen students from counties within 60 miles of campus. The college should strengthen its outreach efforts to territories that extend beyond this 60 mile radius. The socioeconomic makeup of Adair County and its surrounding counties presents a substantial limitation to college affordability for students who reside in these areas.

Both admitted, non-enrolled students and LWC's enrolled freshman indicated that customer convenience is an important aspect of college choice. The increasing demand for distance education suggests that LWC should consider the viability of this flexible and adaptive mode of education as a means to boost enrollment and generate additional revenue.

Customer Communications Comparisons

To maximize results and ensure success, colleges and universities must clearly and concisely inform target audiences of the institution's mission, academic programs, and social environment, while stimulating student interest (Kotler & Fox, 1995). In a crowded marketplace, adjustments to traditional forms of communication are necessary. A recent study of college viewbooks by Hartley and Morpew (2008) suggests "institutional isomorphism" is prevalent in viewbooks as normative pressures suppress the creative ability of institutions to depict themselves as unique or distinctive (p. 683). Consequently, many institutions are "rethinking their communication efforts" (Kotler & Fox, 1995, p. 350).

College viewbooks continue to fill a purposeful role for students and parents during the college decision-making process (Hartley & Morpew, 2008); however, today's generation is increasingly using the Internet to inform college decision making (Tower, 2005). Hossler, Schmidt, and Vesper (1999) contended that the college decision-making process involves information gathering and processing. Symbols, images, words, and phrases can shape student perceptions about an institution, which may in turn create a competitive advantage. The project team examined marketing materials, including viewbooks, electronic media, and student perceptions of customer communications. Student perceptions and sources of information were derived from the ASQ and ESQ and through interviews with enrolled freshmen.

The analysis was conducted through a framework derived from the literature on marketing, communications, and competitive advantages (Hartley & Morpew, 2008; Porter, 1980). Findings were based on a qualitative analysis of key themes for each institution (Appendix E). The project team compared LWC's viewbook with its top five competitors' viewbooks guided by the questions:

- How does the institution convey its mission to its audience?
- What are the themes in its communication, especially in terms of value, cost, and convenience?
- How does the institution differentiate itself from other institutions?
- What is the quality of the viewbook style?

Communication of Mission

An institution's mission communicates its internal ideals and how it intends to be perceived by external audiences (Fairhurst, Jordan, & Neuwirth, 1997). LWC and its top five competitors articulated their missions using phrases and formal statements. One important characteristic of mission statements is that they are measurable (Dill, 1997). From an external perspective, LWC's mission statement is not measurable and the meaning of "every student, every day" is not transparent. On the other hand, Western

Kentucky University and University of Kentucky clearly state their desire to become a “leading American university with international reach” and “to become a top 20 public research institution,” respectively.

Although the value of printing a full mission statement in a viewbook, as LWC does, is questionable, LWC attempts to convey to students that the institution’s focus on students is core to its mission. Western Kentucky and the University of Kentucky focus on specific goals and ideals. LWC could equally claim its “international reach” with its diverse student population, but LWC’s message appears to be more internally oriented. LWC’s use of “every student, every day” is never defined and is not consistent through the viewbook. As LWC continues to develop its marketing strategy, institutional leaders should focus on clearly communicating the college’s aspirations in a broader context and with a diversified public in mind.

Common Themes

A common theme in viewbooks is a memorable and repeated short phrase that engages the reader. The following phrases were used:

- Campbellsville University: “Find Your Calling”
- Eastern Kentucky University: “What If?”
- LWC: “Express Yourself”
- University of Kentucky: “See Blue”
- Somerset Community College: “Higher Education Begins Here”
- Western Kentucky University: “Imagine”

The strongest and most consistent messages were from Eastern Kentucky, University of Kentucky, and Campbellsville University, while Western Kentucky uses its theme sparingly. Each of these phrases is designed to appeal to the institution’s underlying values.

Eastern Kentucky asks six “What If” questions to take the reader through different aspects of the university. For instance, it asks, “What if...I could have it all—world-class professors and a small-town environment?” This tactic seeks to trigger the curiosity of readers and portray a standard of academic excellence within a larger public university, while students benefit from a “small-town” campus community.

Campbellsville’s phrase of “Find Your Calling” speaks to a religiously associated and future-oriented meaning, while LWC uses the phrase “Express Yourself” to portray a more individualistic and artistic perspective. The two phrases express very different meanings, with LWC invoking more of a social connotation, rather than an academic one. LWC portrays an image of self-discovery but does not differentiate itself to the same degree as competitor institutions.

Each of the three preceding aspects of the marketing mix—customer value, customer costs, and customer convenience—were prominent attributes of each viewbook. Certain competitors made a distinct effort to highlight the educational value of attending the respective institution. Eastern Kentucky University asks, “What if I could pay less

tuition at a university that offers me more for my money?” This question draws attention to Eastern Kentucky’s value proposition and implies what Dodd’s (1991) model illustrates—if costs remain low while value is increased, an institution will become more effective at attracting students.

Somerset Community College (SCC) provides a list of the top 10 reasons “why SCC is right for you,” including small class sizes, teaching as a top priority, flexible schedules, convenient locations, open access, and incredible value. By articulating these reasons, SCC is clearly defining the institution’s value proposition. Part of Somerset’s value proposition is that “tuition and fees are roughly half of those paid at public 4-year colleges.”

Student profiles were widely used by institutions, except Eastern Kentucky, to enhance an institution’s customer value. University of Kentucky relates to readers by including “what’s on my iPod?” within student profiles to create a sense of belonging and an environment that prompts prospective students to relate to enrolled students.

As discussed earlier, LWC competes on costs, but public competitor institutions gain a clear advantage by leveraging their low costs of attendance. Campbellsville promotes its “valuable education,” which emphasizes the college’s affordability. LWC states that more than 95% of students receive financial aid, a fact prominently featured in LWC’s viewbooks for the past two years.

Finally, an emphasis on customer convenience through proximity to major towns and invitations to visit campus were important components throughout all viewbooks. Campbellsville and LWC include maps that display major cities and highways surrounding the campus. LWC highlights some aspects of Adair County by saying it is located in a “charming” small town. Western Kentucky asks, “Looking for a cool college town?” in its description of Bowling Green. Campus beauty was directly addressed in Eastern Kentucky and Western Kentucky viewbooks, but LWC only indirectly addresses the physical appearance of its campus. Eastern Kentucky reiterates the invitation to “visit and experience EKU for yourself.” LWC does not suggest the importance of students visiting campus to experience the college’s setting firsthand.

Personal attention and academic quality are prominent components of LWC’s viewbook. Small class sizes and student-to-faculty ratios portray a close-knit atmosphere and a vibrant academic environment on campus. Larger institutions use student-to-faculty ratios to indicate that despite the institution’s large enrollment, students still benefit from personalized attention. Campbellsville University distinguishes itself from the larger public institutions by including a statement from a parent who says, “You’re not just a number, but a person.” Campbellsville posts a 13:1 student-to-faculty ratio compared with LWC’s student-to-faculty ratio of 19:1. Ironically, LWC’s closest and larger competitors, Western Kentucky and Eastern Kentucky, claim an 18:1 and a 17:1 student-to-faculty ratio, respectively. LWC promotes the personal attention students receive from faculty, but compared to competitors, LWC’s student-to-faculty ratio should not be perceived as a competitive advantage.

Differentiation

According to Porter (1980), differentiation provides insulation against competitive rivalry as it attempts to create brand loyalty and decrease price sensitivity. Differentiation involves strategic positioning and is achieved when an institution assesses external perceptions relative to its competitors, selects a desired position, and implements a strategy (Kotler & Fox, 1995). LWC's phrase "Express Yourself" implies an individualistic and social tone, but the message is diluted and does not clearly differentiate the institution from its competitors. LWC attempts to differentiate itself from competitors with a personalized focus on students by highlighting academic support services, advising, interactive teaching and learning, and study abroad opportunities. However, these are similar approaches as those used by competitor institutions.

Campbellsville emphasizes "Christian values" and *U.S. News and World Report* rankings to distinguish themselves from competitors. LWC displays a *U.S. News and World Report* ranking, but it is not prominent and is only featured towards the end of the viewbook. The University of Kentucky touts "not only powerhouse sports but 70 nationally ranked academic programs" and repeatedly states "blue is the color of opportunity." Students at the University of Kentucky are invited to participate in a class with a *New York Times* bestselling author, play pool with the university president, and go to a game at Rupp Arena. Finally, Somerset Community College uses the statement, "65% of jobs require more than a high school diploma but less than a four-year college degree" to differentiate the institution from 4-year colleges.

Several institutions promote their customer convenience as a means to differentiate themselves from competitors. Western Kentucky has an interesting arrangement with Bowling Green Community College (BGCC) through which students can attend BGCC and be considered a Western Kentucky student. Furthermore, Western Kentucky and Somerset Community College highlight multiple branch campuses located throughout the state. In comparison with competitors, LWC does not market itself to transfer or non-traditional students.

Quality of Style

LWC and competitor institutions all possess colorful, glossy, and high-quality viewbooks. Somerset Community College's viewbook makes extensive use of lists and bullet points that may reflect a conscious design decision or may result from a thorough understanding of its target audience. It is interesting to note, that despite Somerset's status as a community college, the viewbook includes substantially more pictures of traditional-age college students compared to non-traditional students.

LWC and Eastern Kentucky University viewbooks are the lengthiest and include significant design differences. ECU has a more contemporary style; larger pictures, single images, and uses limited text to convey its intended message. The first four pages of ECU's viewbook contain two large pictures and 126 words. In comparison, LWC's viewbook includes seven pictures and more than 350 words within the first four pages. Given the educational profile of LWC's target audience, a text-heavy viewbook may have a limited effect on students and parents who are not accustomed to reading college viewbooks.

Institutional Websites and Online Social Networking

Today's students gravitate towards emerging media and are devoting more of their time online than watching television (McHale, 2003). The impact of the Internet on colleges and universities is further articulated by the findings of Tower's (2005) research with high school juniors from all regions of the United States, economic backgrounds, and academic abilities:

- 43% of first-generation students use the web each day compared to 51% of non-first-generation students.
- 56% of students prefer viewing an institution's website rather than reading an admissions brochure.
- 81% of students used the web for instant messaging.
- 70% would instant message with an admissions counselor.
- 44% would be receptive to receiving a text message from an admissions counselor.
- 90% would use a financial aid estimator on a college website.
- 72% of students reported using a college website to submit an inquiry form.
- 86% affirmed they would complete an online application.

A college or university's website is important for attracting students, but it also serves a dominant communications vehicle for students, alumni, parents, and friends of the institution. Martínez Alemán (2009) suggested that in the near future, colleges and universities will be using social networking sites as an instructional tool; in fact, this evolution is already occurring where some faculty are using Facebook to "foster peer learning and conduct group projects." According to a recent study by the Art and Science Group, LLC (2008) geared to senior registrants for the SAT, 90% of college-bound students visit social networking sites and 61% use social networking sites to communicate with classmates about homework and other academic purposes. Today's technologically savvy students make use of constantly evolving media streams and institutions must use this phenomenon to their advantage.

Through the qualitative interviews, freshmen students revealed that the Internet served as a significant source of information during their college decision-making process. Students indicated mixed impressions of LWC's website. Some perceived it as easy to navigate and informative, while others found it complicated and confusing. One student noted:

It was hard to navigate if you are not familiar with Lindsey Wilson College. Other websites are easier to find what you are looking for. LWC's was too basic. Not enough about academics, classes, or majors.

When asked a follow-up question about what other sources on the Internet might reach more students, several freshmen mentioned the social networking sites Facebook and MySpace. A majority of students indicated they regularly use Facebook—a medium that LWC should be using more effectively to communicate with prospective and current students.

Student Perceptions of Communications

Admitted, non-enrolled and enrolled freshmen students rated the effectiveness of LWC's various sources of information during their college search as displayed in Table 16.

Table 16. ASQ and ESQ Respondent's Ratings of LWC's Effectiveness in Sources of Information

Source of Information	ASQ mean	SD	ESQ mean	SD	t
Visits by admission staff to your area	3.44	0.882	2.94	0.929	3.117**
College website	3.21	0.825	2.90	0.895	2.289*
Communications about financial aid	3.23	0.993	3.00	0.864	1.657
Electronic communication with the college	3.22	0.923	3.02	0.812	1.517
Campus visit	3.51	0.683	3.19	0.798	2.392*
On-campus admission interview	3.33	0.679	2.98	0.814	2.156*
Contact with the college after you were admitted	3.35	0.729	3.26	0.807	0.775
Contact with faculty from the college	3.33	0.841	3.07	0.883	1.978*
Contact with coaches	3.36	0.959	3.17	0.959	1.063
Contact with alumni of the college	2.82	1.103	2.51	0.984	1.604
Contact with students who attend the college	3.12	0.942	3.06	0.906	0.388

* $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$.

T-tests for independent samples revealed significantly higher means ($p \leq .05$) for admitted, non-enrolled students in: visits by admission staff to student's area (mean = 3.44), college publications (mean = 3.33), college website (mean = 3.21), campus visit (mean = 3.51), on-campus admissions interview (mean = 3.33), and contact with faculty (mean = 3.33). These differences indicate that admitted, non-enrolled students were obtaining and using information pertaining to LWC from a wider variety of sources than enrolled freshmen students. These sources of information are important because they play a vital role in shaping student perceptions of an institution. Admitted, non-enrolled students also rated interacting with admissions staff and faculty and campus visits higher than enrolled freshmen.

Enrolled female students rated the efficacy of visits by admission staff to their area (mean = 3.09), college publications (mean = 2.98), the college website (mean = 2.99), and electronic communication (mean = 3.11) significantly higher than their male counterparts. A significant difference in visits by admissions staff to their area ($p \leq .01$) suggests female students value the personal interaction with the admission staff. LWC should be encouraged to develop strategies that focus on the effectiveness of marketing toward male students.

Customer Communications Summary

Through its viewbook, LWC is portrayed as a mission-centered institution and appeals to students from a social perspective. In comparison with competitor institutions, LWC fails to make a compelling argument regarding its value proposition. LWC should

become proactive in strategically positioning the institution against competitor institutions through the use of pictures, profiles, and targeted messages.

LWC's website requires substantial improvements, while emerging technologies should be incorporated into marketing strategies. Admitted, non-enrolled students used a greater variety of sources of information pertaining to LWC compared with enrolled freshmen. These results reiterate the need for LWC to communicate its message more effectively, especially using diverse media streams. Customer communications can be used as a tactical aspect of the marketing mix to proactively engage prospective students and differentiate the institution from competitors.

Situational Analysis

Marketing Strengths, Weaknesses, Opportunities, and Threats

The analysis of LWC's marketing mix informed a situational analysis of strengths, weaknesses, opportunities, and threats (SWOT), which will assist in LWC's formulation of its strategic market position. Colleges and universities encounter internal and external factors that contribute or impede upon its growth and success. An institution's success is largely dependent on its ability to recognize and respond to internal strengths and weaknesses, while being familiar with external opportunities and threats (Houben, Lenie, & Vanhoof, 1999). The likelihood of a college or university positioning itself favorably among its competitors is enhanced when an institution maximizes its strengths, averts weaknesses, capitalizes on opportunities, and ascertains threats.

Table 17 presents a SWOT analysis for LWC which is organized by customer value, costs, convenience, and communications. The analysis was informed by data derived from IPEDS, U.S. Census, marketing materials, qualitative interviews, LWC's Office of Institutional Research, and findings from the Admitted Student Questionnaire and Enrolled Student Questionnaire. The following account provides a detailed description of the analysis included in Table 17.

Customer Value

Internal:

Strengths

- Ranks among the top 10% of all colleges and universities in the country on the NSSE as having a supportive campus environment.
- Most diverse student body among Kentucky's independent colleges and universities with 15% consisting of minorities, while enrolling students from 27 states and 31 countries.
- One of Kentucky's fastest-growing 4-year independent colleges.
- Education program meets 97%—the highest level of any independent college in the state—of the accreditation criteria required by Kentucky's Department of Education.
- Nationally acclaimed athletic programs.
- Availability of special academic programs including student support services and pre-professional programs.

- Family environment and willingness of faculty and staff to ensure student success.
- The admissions staff is supportive, efficient, and effective. Applicants who attended other institutions reported favorably on their experiences with the admissions staff.

Weaknesses

- Limited number of academic programs offered.
- The student-to-faculty ratio of 19:1 exceeds the ratio found at several competitors, particularly at Campbellsville University with a ratio of 13.1.
- Lack of a dynamic and engaging social life on campus, which is contrary to marketing materials portraying an active campus environment.
- Residence halls are outdated and lack the ability to foster learning communities.

External:

Opportunities

- Enhanced reputation and prestige among external constituents as a result of capital projects; especially with the expansion to the Sumner Campus Ministry Center, which will position LWC as an institution committed to a student's religious growth.
- Student perceptions indicating that larger campuses are overwhelming, in addition to associating a smaller environment with a safer campus.

Threats

- State-of-the-art academic, social, residential, and athletic facilities attracting students to competitor institutions.
- The ability of students to learn from and interact with distinguished professors in academic fields at competing institutions.
- Availability and accessibility of advanced academic resources at competitor institutions allow students to optimize learning potential.
- A continued decline in the value of the institution's endowment may invoke cutbacks, downsizing, and/or eliminations to various personnel, programs, or projects.
- Adverse impacts, including negative perceptions regarding institutional prestige and reputation, resulting from a lack of exposure in publications such as *U.S. News and World Report*.

Customer Costs

Internal:

Strengths

- Tuition and fees for 2008-2009 are 9.3% less than Campbellsville University.
- A high percentage of freshmen students in 2006-2007 received institutional grants to offset cost of attendance.
- In 2006-2007, freshmen students at LWC received higher average grants compared with counterparts at competing institutions.

Table 17: SWOT Analysis of LWC

	Strengths	Weaknesses	Opportunities	Threats
Customer Value	<ul style="list-style-type: none"> • Supportive campus environment • Diverse student body • Rapid growth of institution • Education program • Athletic programs • Special academic programs • Family environment and faculty • Admission staff effectiveness 	<ul style="list-style-type: none"> • Limited number of academic programs • Student-to-faculty ratio • Social life on campus • Quality of residential halls 	<ul style="list-style-type: none"> • Enhanced reputation and prestige • Student perceptions indicating: large campus overwhelming; small campus safer 	<ul style="list-style-type: none"> • Competitor facilities • Allure of distinguished faculty at competing institutions • Advanced academic resources at competing institutions • Decline in endowment value • Lack of exposure in national ranking reports
Customer Costs	<ul style="list-style-type: none"> • Lower tuition and fees than Campbellsville • High percentage of freshmen receiving institution grants • High average grant per freshman • Average net cost of attendance lower than Campbellsville 	<ul style="list-style-type: none"> • Tuition and fees higher than public institutions • Dependence on tuition and fees for revenue • High room and board fees 	<ul style="list-style-type: none"> • Increased enrollment as a result of new facilities and programs • Increased revenue streams • Additional philanthropic support • Economic stimulus package benefiting higher education • Student perceptions of financial aid 	<ul style="list-style-type: none"> • Limited federal/state support • Institutional aid of competitors • Shift in financial aid system • Availability of merit-aid at competitors • Economic uncertainty • Average net cost at competitors • Perceived sacrifices outweigh benefits • Perceptions of “sticker price”
Customer Convenience	<ul style="list-style-type: none"> • Located in safe, Christian and family environment • New facilities and expansion to Campus Ministry Center • Location off a major highway 	<ul style="list-style-type: none"> • Limited opportunities to participate in enriching activities off-campus • High dependence on enrollment from KY students 	<ul style="list-style-type: none"> • Population growth in Columbia • SCC graduates transferring to LWC • Enhanced relationships with local organizations 	<ul style="list-style-type: none"> • Competitors located in populated cities • Competitor’s proximity to students • Low percentage of Adair residents with a bachelors degree • Median household income of Adair County residents • Student relationships with their family
Customer Communications	<ul style="list-style-type: none"> • Relationship between admission counselors and students • Effectiveness of campus visits • Effectiveness of athletic coaches • Regular communication from faculty and advisors with students 	<ul style="list-style-type: none"> • Lack of clear and consistent message • Text-heavy viewbook • Underutilization of social networking sites • Institutional website • Limited use of innovative, technologically advanced strategies 	<ul style="list-style-type: none"> • Social networking sites provide users options to become more knowledgeable • Positive ramifications created by new athletic facilities and programs 	<ul style="list-style-type: none"> • Lack of parental involvement • Student’s negative perceptions of LWC’s sources of information • Competitor’s use of social networking sites • Targeted messages to first-generation students and parents by competitors • Recognized name brands on competitor campuses • Positioning of public competitors

- Average net cost of attendance for freshmen students at LWC in 2006-2007 was 9% less than Campbellsville University.

Weaknesses

- Tuition and fees for 2008-2009 are substantially higher compared to competing public institutions and Somerset Community College.
- Reliance on tuition and fees as a dominant revenue stream.
- Room and board fees exceed competitor fees; excluding Somerset Community College.

External:

Opportunities

- Increased enrollment related to expansion of Sumner Campus Ministry Center and the creation of new athletic programs including football, track and field, and a marching band.
- Increased revenue streams from hosting conferences at the Sumner Campus Ministry Center and sporting camps at the athletic complex.
- Additional philanthropic support from alumni, parents, and friends for the campus ministry program and new athletic programs and facilities.
- Economic stimulus package providing a \$100 billion to education, a \$14 billion tax credit for higher education expenses, and \$15 billion to increase Pell Grants—which may assist with increasing enrollments.⁷
- Students perceive financial aid as a significant factor in the college decision-making process. With a high percentage of LWC's receiving financial aid, students may develop a positive perception of the institution.

Threats

- Limited federal and state support restricts access for students, particularly lower socioeconomic students, to higher education, and in particular to private institutions.
- In 2006-2007, LWC's average institutional grant per recipient was lower than Campbellsville University and only slightly higher than the University of Kentucky.
- The distinct shift in the financial aid system from need-based to merit-based aid.
- A significant number of admitted, non-enrolled students indicated they were offered more merit-aid from other institutions. This means that higher-ability students are gravitating to other institutions.
- Current economic uncertainty prompting students to attend public institutions rather than private institutions.
- Average net cost of attendance is lower at competing public institutions.
- Students indicate that perceived sacrifices outweigh the perceived benefits of attending LWC.

⁷ Retrieved February 14, 2009 from: <http://features.csmonitor.com/politics/2009/02/14/obama-wins-his-economic-stimulus-package-but-without-the-bipartisanship-he-sought/>

- LWC’s “sticker price” gives many students the perception that the institution is too expensive to attend.

Customer Convenience

Internal:

Strengths

- Located in a safe, family-oriented environment within Columbia, which heralds a low crime rate and where Christian values are prominent within the community.
- The appeal and accessibility of the new health-and-wellness center, baseball-softball complex, multi-purpose outdoor stadium, and Sumner Campus Ministry Center to students and the community.
- Advantage over Campbellsville University in being located off a major highway.

Weaknesses

- Limited opportunities in rural Adair County for students to participate in cultural, social, or academically enriching activities.
- A heavy dependence on student attendance from counties within Kentucky; particularly those that surround Adair County.

External:

Opportunities

- The population of Columbia has grown by 5.1% since 2000, increasing the population base that LWC can attract and serve.⁸
- Given the close proximity of LWC to Somerset Community College, a strengthened relationship between the two institutions may encourage graduates of Somerset to transfer to LWC to complete a bachelor’s degree.
- Willingness of local organizations including Chamber of Commerce, Rotary, Columbia Choral Society, and U.S. Junior Chamber (Jaycees) to enter into partnership agreements with LWC.

Threats

- LWC’s competitors are located in cities where the population exceeds 10,000; typically equating to an increase in the number of college-bound students and a vibrant business and social community.
- Admitted, non-enrolled students indicated that the proximity of an alternative institution to their home or larger town was the most influential factor in their decision not to attend LWC.
- The low percentage of residents in Adair County holding a bachelor’s degree or higher may limit the number of parents who encourage students to attend college.
- The low median household income of Adair County residents compared to the average net costs of attending LWC results in an affordability index that does not favor residents of Adair County.
- The close relationship that many first-generation students have with their families’ results in a majority of students traveling home on the weekends.

⁸ Retrieved January 15, 2009 from: <http://www.city-data.com/city/Columbia- Kentucky.html>

Customer Communications

Internal:

Strengths

- Effective personal relationships established by admission counselors with prospective and current students, especially females.
- Admitted, non-enrolled students and enrolled freshmen indicated favorable communications with the admissions office following acceptance to LWC.
- Students participating in campus visits indicated a positive experience.
- Athletic coaches are effective in disseminating information about the institution to students.
- Enrolled freshmen students indicated a positive experience due to frequent discussions with faculty and freshman advisors.

Weaknesses

- Lack of a clear and consistent message to prospective students and families.
- Text-heavy descriptions in the viewbook may be difficult for certain audiences to fully comprehend.
- Underutilization of social networking sites to communicate with and engage internal and external constituents.
- Institutional website is difficult to navigate and fails to portray LWC as an institution of the 21st century.
- Limited use of innovative and technologically advanced strategies to recruit prospective students and communicate with internal and external constituents.

External:

Opportunities

- Social networking sites provide users with opportunities to learn about and become engaged with the institution through discussions with other users.
- External constituents embrace the new athletic programs and facilities and speak favorably about the institution's growth within the community.

Threats

- Students whose mother's attained less than a high school degree are less likely to contact faculty to obtain information relating to their student or the college.
- Enrolled students use and perceive fewer sources of information about the college as effective.
- Competing institutions make greater use of social networking sites to recruit, engage, and communicate with internal and external constituents.
- Targeted messages to first-generation students by public institutions highlighting the inexpensive costs of attendance and the multitude of support services.
- The image created by Campbellsville University hosting recognized brand names on campus such as Barnes & Noble and Starbucks.
- Public institutions positioning themselves as offering opportunities of a large campus, yet students are part of a small, close-knit community.

Summary

LWC's strengths in customer value outweigh its weaknesses. Administrators should be concerned with threats the institution faces compared to the limited opportunities available for enhancing customer value. LWC's strengths in customer costs provide the institution with a favorable position when compared with Campbellsville, but weaknesses are typified by the institution's reliance on tuition and fees as a predominant revenue source. Fortunately, there are several opportunities for LWC to enhance its financial position through increased enrollments and a targeted campaign for philanthropic support. The threats imposed from public competitors and the shift in financial aid from need-based to merit-based are significant.

Strengths of LWC's customer convenience are derived from its small town environment, but a dependence on attracting students in close proximity to campus could impede upon the institution's continued success. Opportunities to enhance customer convenience are limited, while the demographic profile of Adair County poses a prominent threat. LWC's strengths in customer communications are primarily a result of the effectiveness of the admission counselors. However, there are weaknesses in customer communications that need to be addressed, specifically in strategic messaging. LWC should strive to gain additional exposure among college-bound students via the Internet. Yet, again, LWC is faced with substantial threats relative to customer communications, which could have an adverse affect on student perception's of the institution.

The identification of strengths, weaknesses, opportunities, and threats within the marketing mix framework present institutional leaders with an account of specific areas that LWC can use to its advantage, while addressing other areas that may adversely impact the institution's progress. It is important for LWC to realize that effective enrollment management connects strategic marketing with efforts to reduce student departure. While it is vital for LWC to make comparisons with their competitors, it is equally important for LWC to conduct analyses within a broader context by similarly conducting a peer analysis to reduce student departure.

Part II: Reducing Student Departure

Gaining a deeper understanding of issues related to high levels of student departure is a complex process that requires analyses from varying perspectives. The project team created a comparative context to examine issues of student departure and analyzed factors leading to first-year student departure at LWC. Structural limitations were also identified that may impact LWC's ability to reduce student departure.

Institutional Peer Analysis

A Comparative Context for Student Departure

The project team identified LWC's peer institutions to create a comparative context in which to examine issues related to student departure. Peers are defined as institutions with a similar role, scope, and mission (Zhang, 2006). A peer institution can also function as an institution's competitor; however, peer institutions are often located in different geographic regions and do not necessarily compete with one another. A peer analysis requires the determination of peer institutions based on common characteristics.

As colleges and universities are increasingly being held accountable for outcome measures of institutional effectiveness, such as retention rates, the significance of performance indicators, self-assessment standards, and benchmarking have elevated importance. A peer analysis is used by institutions to assess academic and financial strengths in comparison with similar institutions (Zhao & Dean, 1997), while assisting institutional leaders make decisions relative to institutional planning, resource allocation, and performance management (Terenzini, Hartmark, Lorang, & Shirley, 1980).

Peer institutions are identified through several approaches including panel review, threshold approach, and cluster analysis (Brinkman & Teeter, 1987). The panel review determines peers in a subjective manner, whereas the threshold approach uses variables including an institution's Carnegie Classification and Control of Institution to identify peers from a large data set. Zhang (2006) asserted that variables and institutions are often arbitrarily determined in a threshold approach. The third approach, a cluster analysis, is the most objective and accurate measure for identifying peer institutions using systematic and analytical methods that avoid inclusion of predetermined peer institutions (Brinkman & Teeter, 1987; Terenzini et al., 1980). The project team selected a cluster analysis to identify peer institutions for LWC.

Institutional characteristics that impact student retention rates were incorporated into the peer analysis to provide institutional leaders with an understanding of how LWC's student departure concerns compare with those of peer institutions on a national level. The project team posed the questions:

- Who are LWC's peer institutions?
- How does LWC compare with peer institutions on characteristics that impact student departure?

Determining Peer Institutions

The project team used SPSS statistical software to generate a hierarchical cluster analysis to identify LWC's peer institutions. A hierarchical cluster analysis groups institutions according to selected variables, arranges them hierarchically, and forms clusters of institutions based on their homogeneity (Peseau & Tudor, 1988). The analysis for this project was performed using data from IPEDS for 2006-2007.

The analysis began with an initial population of 7,126 institutions that was reduced to a sample of 76 institutions.⁹ The project team selected five variables to reduce the sample size. The first variable, Control of Institution, was used to include only private not-for-profit institutions. An institution's Carnegie Classification was used to limit the sample to Baccalaureate Colleges—Arts and Sciences and Baccalaureate Colleges—Diverse Fields. Degree of urbanization was then incorporated to include institutions in small and midsize cities, small suburbs, and any rural town or area. Full-time equivalent enrollment (FTE) was used to include institutions with a FTE of either 20% above or below LWC's FTE. And, the final variable excluded any Historically Black College or University (HBCU).

Once the sample of 76 institutions was selected, a further set of variables were incorporated into the cluster analysis. Walsh (2000) recommended that institutions select variables for student demographics, student academic ability, and institutional characteristics. The project team included the following variables: 12-month FTE enrollment, number of full-time instructional faculty, revenues from tuition and fees per FTE¹⁰, SAT verbal average score, and SAT math average score. In some instances, institutions only reported ACT scores, so the project team converted these scores to SAT scores using a score conversion table. The project team repeated the clustering several times to “bracket” the optimal number of clusters as suggested by Walsh (2000).

The hierarchical cluster analysis revealed 10 institutions, including LWC, that were closely clustered (see Appendix F). LWC's peer institutions include Albertus Magnus College, Campbellsville University, Keystone College, Methodist University, North Greenville University, University of the Cumberlands, Vanguard University of Southern California, Wesley College, and Wingate University. It is interesting to note that from a national population of 7,126 institutions to the final cluster of 10 peer institutions, Campbellsville University and University of the Cumberlands were both included. These institutions are not only LWC's competitors, but also peers.

Comparative Context

The project team ranked LWC according to peer institutions on measures associated with student departure. These measures included student characteristics, admitted and yield rates, financial aid, institutional expenditures, and faculty salaries. Full-time retention rate was used as the comparative outcome measure, leading to an in-depth analysis of LWC's first-year student departure in Part II. This exploratory peer analysis provides

⁹ A sample of less than 100 was deemed appropriate by Dr. Liang Zhang, Vanderbilt University.

¹⁰ Financial Accounting Standards Board (FASB).

LWC's institutional leaders with a synopsis of the college's position and efficacy relative to peer institutions.

Institutional Practices Related to Student Departure

Student characteristics effect student departure (Braxton, Hirschy, & McClendon, 2004). Table 18 provides a profile of LWC's peer institutions, highlighting the geographic diversity, in addition to the variations among the institution's student populations. LWC had the second lowest full-time enrollment and the fourth highest percentage of full-time students. LWC enrolled the second highest percentage of female students and the sixth highest percentage of minority students. In students considered "non-traditional" (aged 25 or older), LWC enrolled the second highest percentage.

Table 18: Institutional and Student Characteristics of Peer Institutions for 2006-2007

Institution Name	Location	FTE enrolled	Full-time students	Female students	Minority students	Undergrad. age 25 or older
Albertus Magnus College	New Haven, CT	1917	95%	69%	40%	60%
Campbellsville University	Campbellsville, KY	1886	66%	59%	7%	10%
Keystone College	La Plume, PA	1515	75%	61%	8%	7%
Lindsey Wilson College	Columbia, KY	1756	91%	66%	10%	24%
Methodist University	Fayetteville, NC	1919	86%	46%	29%	18%
North Greenville University	Tigerville, SC	1919	92%	52%	8%	3%
University of the Cumberlands	Williams-burg, KY	1839	81%	53%	10%	7%
Vanguard University	Costa Mesa, CA	1883	78%	64%	28%	4%
Wesley College	Dover, DE	2113	86%	54%	33%	18%
Wingate University	Wingate, NC	1828	96%	53%	15%	4%

Source: Integrated Postsecondary Education Data System, 2006-07.

The project team collected mission statements for all peer institutions (Appendix G). It is interesting to note that all of the institutions are religiously affiliated, validating the strenght of the cluster of peer institutions.

Admitted and yield rates are two further areas that have an impact on student departure. More selective institutions are associated with higher rate of student retention (Hermanowicz, 2003). Despite LWC's status as an open admission college, institutional leaders should have an understanding of the college's admitted and yield rates in comparison to peer institutions. Table 19 indicates that LWC is one of four colleges, including Albertus Magnus College, Keystone College, and Vanguard University of Southern California, that admit 80% or more of its applicants. Of these less selective

institutions, LWC ranked last in retaining full-time enrolled students and only surpasses Albertus Magnus College in yield rates.

Table 19: Admitted, Yield, Retention, and Graduation Rates for 2006-2007

	Admitted rate (selectivity)	Admissions yield rate	Full-time retention rate	Graduation rate
Albertus Magnus College	86%	20%	85%	57%
Campbellsville University	59%	42%	71%	39%
Keystone College	94%	50%	70%	40%
Lindsey Wilson College	80%	29%	54%	25%
Methodist University	75%	34%	57%	40%
North Greenville University	75%	50%	72%	45%
University of the Cumberlands	45%	91%	61%	41%
Vanguard University of Southern California	82%	48%	72%	51%
Wesley College	68%	27%	46%	38%
Wingate University	61%	22%	68%	47%
Lindsey Wilson College Rank	7	7	9	10

Source: Integrated Postsecondary Education Data System, 2006-2007.

University of the Cumberlands lead the peer group in converting admitted students into enrolled students with a yield rate of 91%, more than double its admitted rate, but struggles with retaining full-time students. Campbellsville University and North Greenville University were effective in yielding a high percentage of admitted students and posted retention rates that were higher than most institutions in the peer group. Albertus Magnus had particularly high retention and graduation rates, despite its admitted and yield rates being considerably lower.

The level of financial assistance has an influential role in attracting and retaining students (Ishitani, 2006; Newman & Courtier, 2001). Table 20 indicates the percentage of freshmen students at peer institutions receiving various grants and the average grant per recipient. Among its peers, LWC ranked the highest in percentage of students receiving federal, state, and local grants. According to average federal and state/local grant per recipient, LWC ranked fourth and third, respectively. These peer comparisons highlight the financial need of LWC's students in addition to the effectiveness of LWC's admission counselors securing aid for students. LWC had the second lowest percentage of freshmen students receiving institutional grants and ranks sixth in average institutional grant per recipient. Colleges and universities use institutional grants to attract and enroll higher-ability students (Steinberg et al., 2009).

Table 20: Financial Aid for Freshmen Students in 2006-2007

Institution Name	Receiving federal grants	Average federal grant per recipient	Receiving state/local grants	Average state/local grant per recipient	Receiving institutional grants	Average institutional grant per recipient
Albertus Magnus College	39%	\$3,056	45%	\$5,512	49%	\$5,403
Campbellsville University	49%	\$3,413	84%	\$4,275	98%	\$6,704
Keystone College	43%	\$3,285	56%	\$3,650	96%	\$6,725
Lindsey Wilson College	60%	\$3,675	86%	\$4,495	79%*	\$6116*
Methodist University	31%	\$3,908	49%	\$3,499	93%	\$7,079
North Greenville University	34%	\$2,151	49%	\$2,800	85%	\$4,153
University of the Cumberlands	46%	\$4,054	59%	\$4,710	89%	\$5,921
Vanguard Univ. of Southern California	20%	\$755	15%	\$1,018	83%	\$10,078
Wesley College	41%	\$1,969	22%	\$1,206	95%	\$3,101
Wingate University	31%	\$3,700	73%	\$3,448	100%	\$8,680
Lindsey Wilson College Rank	1	4	1	3	9	6

Source: Integrated Postsecondary Education Data System, 2006-2007.

*LWC's Office of Institutional Research.

Institutional expenditures and faculty salaries are often used to impact student outcomes. Astin (1993) suggested that general expenditures have a positive affect on student attitudes and perceptions. One of the few studies on the affect of expenditures on student retention and graduation rates found that instructional and academic support expenditures have a positive affect among Baccalaureate I and II institutions (Ryan, 2004). Table 21 indicates that LWC ranked seventh in academic support expenditures and eighth in instructional expenditures. Vanguard University of Southern California and Wingate University were the leaders among LWC's peer group in instructional expenditures and both ranked in the top five for retention rates in 2007.

As LWC is situated in an economically depressed area, the college was able to obtain Title III federal grants for academic support. This could explain, in part, LWC's low ranking in academic support expenditures. LWC's average faculty salaries were considerably lower than many peer institutions, including Campbellsville University. All of LWC's faculty ranks fell below the median salary at peer institutions except for full professors (Appendix H). While the strategy of increasing full professor salaries enhances the institution's ability to attract and compete for highly qualified faculty, it may diminish its ability to draw quality faculty at lower ranks.

University of the Cumberlands and Wingate University are both situated in a similar rural setting to LWC, however, both institutions allocated more resources to student services.

LWC ranked fourth in expenditures on student services, but given that colleges and universities located in remote locations are apt to spend more on student services, institutional leaders at LWC may consider allocating further resources to student services. Furthermore, LWC ranked eighth in the category of institutional support—a further area that institutional leaders should examine.

Table 21: Expenditures per FTE¹¹ and Faculty Salaries for 2006-2007

Institution Name	Instructional	Academic support	Student services	Institutional support	Average faculty salary *
Albertus Magnus College	\$4,134	\$302	\$1,228	\$3,369	\$53,609
Campbellsville University	\$4,012	\$891	\$2,331	\$3,595	\$46,216
Keystone College	\$4,411	\$765	\$1,780	\$2,629	\$57,371
Lindsey Wilson College	\$4,057	\$623	\$2,799	\$2,509	\$44,565
Methodist University	\$6,111	\$568	\$3,050	\$3,074	\$44,972
North Greenville University	\$3,867	\$1,627	\$1,565	\$855	\$49,102
University of the Cumberlands	\$4,531	\$1,088	\$3,193	\$2,956	\$44,581
Vanguard Univ. of Southern California	\$6,938	\$701	\$2,599	\$7,278	\$52,631
Wesley College	\$4,413	\$493	\$1,970	\$1,896	\$44,169
Wingate University	\$6,290	\$971	\$3,256	\$3,543	\$51,335
Lindsey Wilson College Rank	8	7	4	8	9

Source: Integrated Postsecondary Education Data System, 2006-07.

*Equated to 9-month contracts of full-time instructional staff - all ranks.

¹¹ According to Integrated Postsecondary Education Data System [IPEDS], (2008), instructional expenses per FTE include, “General academic instruction, occupational and vocational instruction, community education, preparatory and adult basic education, and regular, special, and extension sessions.”

Academic support includes, “The retention, preservation, and display of educational materials; organized activities that provide support services to the academic functions of the institution.”

Student service expenses include, “Expenses for admissions, registrar activities, and activities whose primary purpose is to contribute to students emotional and physical well-being and to their intellectual, cultural, and social development outside the context of the formal instructional program.”

Institutional support expenses include, “General administrative services, central executive-level activities concerned with management and long range planning, legal and fiscal operations, space management, employee personnel and records, logistical services such as purchasing and printing, and public relations and development.”

Institutional Outcome of Student Retention Rates

Input measures such as student characteristics, admissions selectivity, financial aid, and institutional expenditures are important to consider when making comparisons between institutions. However, institutions are increasingly being judged by and held accountable based on outcome measures (Burke, 2005). Student retention rates are frequently examined as they indicate levels of student growth and signify an institution's ability to foster a supportive and academic environment. Table 22 depicts changes in full-time retention rates from 2004 to 2007 for LWC and peer institutions. The 2004-2007 percentage change presents an encouraging picture for LWC as retention rates improved from 47% to 54%; an increase of 7 percentage points. There are only two other institutions that have posted similar gains, Albertus Magnus College and Campbellsville University. All other institutions, except North Greenville University that increased by 1 percentage point, posted declines in retention rates during the same period. Despite LWC's improvements in full-time retention rates, the institution only positioned ninth among peer institutions in 2007.

Table 22: Full-Time Retention Rate Trend Report

Institution Name	2004	2005	2006	2007	2004-2007 Percentage Change
Albertus Magnus College	69%	68%	73%	85%	16%
Campbellsville University	61%	63%	65%	71%	10%
Keystone College	72%	66%	66%	70%	-2%
Lindsey Wilson College	47%	52%	51%	54%	7%
Methodist University	62%	62%	58%	57%	-5%
North Greenville University	71%	69%	65%	72%	1%
University of the Cumberlands	63%	62%	63%	61%	-2%
Vanguard University of Southern California	77%	77%	74%	72%	-5%
Wesley College	52%	49%	52%	46%	-6%
Wingate University	72%	70%	72%	68%	-4%
Lindsey Wilson College Rank	10	9	10	9	3

Source: Integrated Postsecondary Education Data System, 2006-2007.

Utilizing the Comparative Context

LWC must investigate the policies and procedures of peers who post higher retention rates. For example, Albertus Magnus College has faced the challenge of retaining a larger percentage of minority students, a larger percentage of non-traditional students, while incurring the lowest levels of academic support expenditures; yet in 2007, the institution had the highest retention rate among peers and the highest graduation rate. Campbellsville University had the lowest percentage of full-time students, admitted 59%

of applicants, and yielded 42%; yet in 2007, the institution was able to post a retention rate of 71%. From an admissions perspective, University of the Cumberlands may appear secure, having posted a yield rate of 91%, but from an enrollment management perspective, the institution has struggled to make any significant advances with its retention rates. LWC should also consider why Wesley College, an institution with similar characteristics, has experienced a decrease of 6 percentage points in retention rates from 2004 to 2007.

Peer Identification and Comparison Summary

The project team conducted a cluster analysis using IPEDS data to determine LWC's peer institutions. LWC had a higher percentage of students receiving federal, state, and local grants compared to its peers. However, LWC's students receive considerably less institutional aid in comparison to many of their counterparts at peer institutions.

Although LWC admitted a high percentage of applicants, peer institutions with similar admit rates, had higher yield rates. LWC should discover the strategies these institutions use in order to matriculate a higher percentage of students. LWC was weak when compared with peers in instructional, academic, and institutional expenditures. Furthermore, LWC trailed the majority of peer institutions according to retention and graduation rates. Despite encouraging gains in the reduction of student departure over the past 3 years, LWC still ranked at the bottom of the peer group for retention rates in 2007.

The peer analysis forms an important comparative context for an in-depth understanding of student departure at LWC. As researchers in student departure suggest, there is much to learn by examining the national landscape of initiatives to retain students (Braxton, 2000). Institutional leaders at LWC should be encouraged to develop relationships with appropriate personnel at peer institutions, to abstract information that will assist in reducing first-year student departure.

Factors That Lead to First-Year Student Departure

Initial discussions with LWC's institutional leaders revealed a common concern of how the college can fulfill its mission, while reducing student departure; particularly among first-year students.

In 2007-2008, LWC's retention rate for first-time, full-time undergraduates was 52.6%; below the national first- to second-year retention rate of 67.2% for private, 4-year open access institutions (ACT, 2008). In addition, LWC's retention rate for all undergraduate students was 54%, which is also lower than the average retention rate of 69.5% for 4-year colleges in Kentucky and trails the national average of 75.5% (AIKCU, 2007; National Center for Education Statistics, 2007).

Student departure rates are a common concern among institutional leaders irrespective of an institution's Carnegie Classification, *U.S. News and World Report* ranking or financial viability. Student departure is a campus-wide issue that requires a collaborative effort from all campus divisions, especially as most institutions lack a specified department that accepts sole responsibility for coordinating efforts to reduce student departure.

To exacerbate matters, a definitive solution to easing an institution's attrition issues does not exist; particularly given that the departure process differs for students enrolled in residential and commuter colleges and universities (Braxton et al., 2004). Consequently, student departure is a complex challenge for colleges and universities and has been referred to as a "puzzle" (Braxton, Sullivan, & Johnson, 1997) and an "ill-structured problem" (Braxton & Mundy, 2001).

The project team sought to gain an understanding of student departure at LWC based on existing theories of student departure and an analysis of first-year students, which was informed by first- and second-semester surveys and qualitative interviews. One of the primary facets to reducing student departure lies in a student's first-year experience at an institution (Elkins, Braxton, & James, 2000; Hermanowicz, 2003; Terenzini, Springer, Yaeger, Pascarella, & Nora, 1996). To understand a student's first-year experience at LWC, the project team posed the question: What factors contribute to first-year student departure at LWC?

First Semester:

Instruments and Methods of Analysis

To ascertain the factors that contribute to first-year student departure at LWC, the project team conducted a survey and qualitative interviews in fall 2008 with full-time freshmen students. The Enrolled Student Questionnaire (ESQ), previously discussed in the strategic marketing analysis, was administered on October 22, 2008 to a population of 425 full-time freshmen students enrolled at LWC. Students participating in Freshman Seminar courses were encouraged to take the survey in the campus computer lab. Two subsequent e-mail communications were sent as a follow-up to the survey by the freshman year experience director. The survey consisted of 133 open- and closed-ended items, 77 of which informed this part of the study (Appendix I) and a response rate of

60% ($N = 255$) was attained. The ESQ provides a first-semester analysis of “intermediate commitment to the institution” based on entry characteristics, initial student expectations, and student perceptions of their social and academic experiences at college. As discussed in the strategic marketing analysis, respondents to the ESQ, described in Table 23, comprise a representative sample of LWC’s 2008 freshman cohort.

Table 23: Descriptive Statistics for ESQ, Qualitative Interviews, and Freshman Cohort

	Enrolled Student Questionnaire (ESQ)	Qualitative Interviews	2008 First-Semester Freshman Cohort
Number of respondents	255	28	425
Response rate	60%	93%	n/a
Female students	60%	79%	59%
Minority students	16%	18%	13%
Residential students	72%	71%	65%
First-generation students	36%	68%	78%
Students working while enrolled	40%	86%	No data
Students enrolled in a freshman seminar course	Not on survey	93%	86%

To understand freshman student behaviors, their expectations and perceptions of LWC, the project team conducted 28 one-on-one qualitative interviews, based on a stratified random sample of enrolled freshmen students during their first semester at LWC. These were the same qualitative interviews the project team drew upon for the strategic marketing analysis. The stratified random sample was determined by residential status (resident vs. commuter) and whether students were first-generation or non-first-generation students. Thirty students were scheduled by the Academic Success Center staff and a response rate of 93% ($N = 28$) was attained. The interview process took place over two days in LWC’s library where students answered a combination of closed- and open-ended questions; allowing researchers to understand departure issues from a student’s perspective (Patton, 2002). All sessions were audio recorded and researchers took field notes. The interview protocol is included in Appendix C. The project team obtained a higher percentage of females than is representative of the freshman cohort, and as a result of the stratified sample, was able to obtain a larger share of first-generation students compared with the response rate of first-generation students on the surveys.

Understanding Intermediate Commitment to the Institution

In fall 2008, 425 full-time freshmen students enrolled at LWC. A total of 87 freshmen students, or 20% of the 2008-2009 freshman cohort, departed after the fall semester in 2008 as seen in Table 24. According to the literature on student departure, it is common for a high percentage of first-generation students to leave an institution after the first semester (Ishitani, 2006). However, it is interesting to note the higher percentage of residential students and females who departed. Given these high departure rates among

first-year students, it is important for institutional leaders to understand the initial experiences that shape a student's commitment to the institution.

Table 24: Fall 2008: First-Semester Student Departure

	Re-enrolled for second semester	Did not re-enroll for second semester
<i>N</i>	338	87
Percentage of total Fall freshman cohort	80%	20%
First-generation students	77%	82%
Female students	60%	54%
Residential students	68%	55%

Two types of commitment that have an impact on student departure include initial commitment to the institution and subsequent commitment to the institution (Braxton et al., 2004; Tinto, 1975). The former is measured by students indicating that the institution in which they enrolled was their first choice of college to attend and the latter is a measure of confidence in attending and graduating from the institution in which they are enrolled (Hirschy, 2004). A third type of commitment, "intermediate commitment to the institution" is expressed as a student's commitment during the first semester to graduate from an institution. Ishitani (2006) found that students who expected not to graduate from an institution were 1.3 times more likely to depart during the first year of college. Lohfink and Paulsen (2005) similarly found that educational aspirations directly affect student persistence.

Tinto's (1975) notion of initial and subsequent commitment to the institution offers a conceptual rationale for using an "intermediate" measure of commitment. Intermediate commitment to the institution lies conceptually between initial commitment and subsequent institutional commitment. Braxton et al. (2004) found strong support in Tinto's (1975) interactionist theory of student departure for the direct effects of initial institutional commitment to subsequent institutional commitment and subsequent institutional commitment to student persistence. Intermediate commitment to the institution combines a student's commitment to graduate from an institution with their institutional affiliation. Affiliation with an institution is an implied aspect of subsequent commitment to the institution, measured by the importance of a student graduating from a specific institution and their confidence in making the right decision to attend the institution in which they enrolled in (Hirschy, 2004). Intermediate commitment to the institution is, therefore, a conceptually valid influence and indicator leading to student persistence.

Conceptual Framework for Intermediate Commitment to the Institution

Stages of Transition

The first-year experience for students can best be understood in layers and overlapping concepts related to student transition and the decision to stay enrolled at a particular institution. Tinto (1988) suggested that three stages are involved in the transition experience from high school to college, basing his work on the research findings of Van

Genep (1961) who articulated the concept of “rites of passage.” The three stages involved in “rites of passage” include separation, transition, and incorporation. Separation is the critical stage and is signified by a decline in interactions with former groups and involves formal ceremonies to mark a new commitment. Separation refers to students proactively adjusting to their new environment, rather than leaving their past behind. Transition involves interacting in new ways with new groups, coping with isolation, and developing new behaviors, knowledge, and skills. Incorporation entails new patterns of interaction and a coherent sense of membership (Tinto, 1988). The greater the degree to which students are able to navigate through these stages, the more likely they are to remain at an institution (Tinto, 1988).

Elkins et al. (2000) highlighted the importance of peer and parental support during the separation stage for students, particularly for first-generation students. First-generation students often live on the margins of “two worlds” between their external environment consisting of family and friends and their internal environment within a college setting (London, 1989). This is a significant challenge for students who still live at home while attending college or for those students who find it difficult to diverge from normative patterns. The adaptation to a new set of academic and social systems creates a disjunction for these students as they experience the breaking, not continuing, of family traditions and peer influences (Terenzini et al., 1993).

Cultural Capital

A concept that substantially shapes the choices and behaviors of entering college students is cultural capital. It is a complex concept defined as the basic cultural background knowledge, disposition, and skills that are passed from one generation to the next (Bourdieu, 1977). According to Pascarella et al. (2004), cultural capital represents the degree of ease or familiarity one has in reference to the “dominant” culture. Cultural capital influences the type of institution students attend and the levels of enriching experiences students will encounter in a college or university. Lower socioeconomic and first-generation students are associated with lower levels of cultural capital and consequently know less about the campus environment, lack access to human and financial resources, and are unfamiliar with many academic values (McCarron & Inkelas, 2006). A concept linked to cultural capital is “habitus,” which refers to an internalized system of thoughts, beliefs, and perceptions that students acquire from their immediate environment (Perna, 2006). The more congruent a student’s habitus is with the culture of an institution, the more likely the student is to persist in college (Berger, 2000).

Factors Leading to Social and Academic Integration

As students navigate the initial separation stage, they assess their congruence with the academic and social communities of the institution. Social integration received strong empirical support for effecting subsequent commitment to the institution and persistence in Tinto’s interactionist model at residential colleges and universities (Braxton et al., 2004). Tinto (1975) articulated that social integration takes place as students experience a normative congruence and a sense of affiliation with members of the campus community. Communal potential—or the extent to which a student believes a subgroup exists within the college that aligns with his or her values, beliefs, and goals—has been

found to influence social integration (Braxton et al., 2004). Academic integration involves a congruence of values and intellectual affiliation with the academic community (Braxton & Lien, 2000). Academic and social integration are two significant adjustments required of freshmen students at colleges and universities.

Identifying “At Risk” Students in the First Semester

A logistic regression analysis was conducted to determine the factors that directly affect intermediate commitment to the institution. Student characteristics including cultural capital, initial commitment to the institution, and items related to social and academic integration were incorporated into the model. These independent variables were mapped to a profile of students “at risk” of early departure. Tierney (2000) recommended that colleges and universities implement an intervention system targeted to “at risk” students. These students typically consist of socioeconomically disadvantaged, academically deprived, and minority students (Kreysa, 2006). Tierney (2000) indicated that institutions adopting such a policy enhance the likelihood of increasing student persistence, as they enable these students to be incorporated in the culture of the institution. The following profile of “at risk” students is adapted from Braxton et al.’s (2004) revision of Tinto’s (1975) interactionist theory, in addition to literature on reducing student departure among first-generation college students:

- *Students from a lower socioeconomic status:* Students that come from higher income families are more inclined to persist through the trials and tribulations of college when compared with their lower socioeconomic counterparts (Sewell & Shah, 1967). The educational level of parents also has a strong correlation to the persistence levels of students. Chase (1970) asserted that departure rates for students raised by parents with an advanced degree are lower than for those whose parents have a limited educational background. Self-reported parent income (ParentsIncome) and a “dummy variable” indicating first-generation students (Fgstudent) were used to test this part of the profile.
- *Students who work off-campus while enrolled in college:* Evidence suggests that for first-generation students, working off-campus limits the ability of a student to become socially and academically integrated (Pascarella et al., 2004). These students take fewer credit hours, have lower levels of extracurricular and athletic involvement, perform less volunteer work, and have lower levels of interaction with peers (Pascarella et al., 2004). The variable for students working while enrolled (Work) was included in the model.
- *Students with low levels of academic achievement:* Academic ability and high school academic achievement are two factors that influence student retention. Sewell and Shah (1967) indicated that student ability is twice as important to persistence in college when compared with socioeconomic status. Ishitani (2006) found that for first-generation students, high school rank and course intensity had significant effects on attrition. Self-reported highest ACT score (ACT) was used instead of high school GPA to differentiate levels of high school course intensity.
- *Female students:* Men have a greater probability than women of completing a college degree (Astin, 1972). Also, among first-generation college students, females are less likely to persist (Lohfink & Paulsen, 2005). One reason for men

persisting is their perception that a college degree is an “economic necessity” and is “directly related to their occupational careers” (Tinto, 1975, p. 110). The variable for female students (Gender) was included in the model.

- *Minority students:* The distinct differences in the quantity of minority students compared to white students who drop out of college requires institutions to develop comprehensive strategies for reducing departure rates (Braxton et al., 2004). Minority students are more inclined to depart as a result of increases in college cost (St. John, 1991). The perceived inability of minority students to pay for college adversely affects their likelihood of becoming socially integrated; resulting in lower levels of commitment to the institution and ultimately leading to departure (Braxton et al., 2004). The minority student variable (Minority) was created by grouping non-white freshmen together for general minority status.
- *Commuter students at residential colleges:* The role of the external environment has an impact on commuter students as they balance life outside the university with on-campus commitments (Braxton et al., 2004). Proximity also influences the level to which students become socially and academically integrated into the institution. Pike and Kuh (2005) found that living on-campus was more important to persistence than engagement and intellectual development. Campuses with designated places for commuter students to gather are less likely to incur high levels of student departure among these students. A variable indicating on-campus residence (Oncampus) was used to test this aspect.
- *Students with minimal prior knowledge of the social and intellectual life on campus:* First-generation students may lack the tacit knowledge and experience to understand the challenges and expectations associated with being a college student (Pike & Kuh, 2005). First-generation students perceive a college environment as less supportive when compared with other students, are less engaged on a social and academic level, and make less progress in learning and intellectual development (Pike & Kuh, 2005). Prior knowledge of the social and academic environment was ascertained by two separate items measuring student’s reported degree of knowledge of the academic environment (Knewacadem) and knowledge of the social environment (Knewsocial).
- *Students who have little interaction with faculty outside of class:* Longwell-Grice and Longwell-Grice (2008) asserted that faculty interaction with students is invaluable to retention; the challenge lies in first-generation students overcoming their reluctance and fear of conversing with faculty members. The quality of contact that students have with faculty is vital to enhancing academic outcomes and student persistence (Pascarella, 1980; Tinto, 1997). Several questions in the qualitative interviews with enrolled freshmen probed this aspect of the profile.

In addition to the profile of “at risk” students, student transition and affiliation were both measured from an academic and social perspective using multiple variables in the model. Additionally, five individual items related to communal potential were included, as communal potential leads to social integration (Braxton et al., 2004; Hirschy, 2004). The concept of cultural capital was measured by an aggregate score of 23 items on the ESQ (Appendix I). External environment relating to parental support and student concern with

being able to afford college were two factors in Tinto's (1975) theory that were also tested in the model.

Findings from the First Semester

The outcome of the first-semester logistic regression analysis was to determine factors directly related to a student's intermediate commitment to the institution, indicated by a student's intention on graduating from LWC. The model revealed 11 of 25 variables that were statistically significant and directly related to intermediate commitment to the institution. Empirical support for the profile of "at risk" students and items related to student transition and affiliation are complemented by findings from the qualitative interviews. Statistical significance for the logistic regression was determined using an identified maximum probability of $p \leq .05$.

The project team found that while few aspects of the "at risk" profile were strongly supported, two items within the "at risk" profile are salient for LWC. One additional item within the "at risk" profile was supported by findings from the qualitative interviews. These three dimensions carry implications for LWC to adopt more of an integrated enrollment management strategy.

1. Within socioeconomic status, parental income had a negative and direct influence on intermediate commitment to the institution ($\beta = -.320$; $p = .01$). The higher the parental income, the less likely students are to express some degree of commitment to graduate from LWC. This is an interesting finding because it is the opposite of suggestion made in the original profile. As described in the strategic marketing analysis, LWC draws a large percentage of Kentucky freshmen within 60 miles of campus from areas with high poverty rates. Cultural capital, which is related to income, was also negatively related to intermediate commitment to the institution ($\beta = -.047$; $p = .05$). Although a low beta coefficient for this measure is considered trivial, this may partially explain why higher income students are at risk of departure. These students may have a habitus that is incongruent with the culture of the institution and are therefore at a greater risk of departure (Berger, 2000). Educationally and culturally enriching opportunities may not be available on campus to the degree that higher income students expected, given their cultural capital.
2. Knowledge of the social and academic environment were both significantly related to intermediate commitment to the institution, but in opposite directions. Knowledge of the social environment before enrolling at LWC was negatively related to intermediate commitment to the institution ($\beta = -1.01$; $p = .05$). This relationship could be explained by a negative perception of the social environment, which impacts commitment and integration into the social life of campus. Conversely, knowledge of the academic environment was positively related to intermediate commitment to the institution ($\beta = 1.125$; $p = .04$). The more students know about the academic environment of the college prior to attending, the more likely they are to commit to graduate from LWC.

When freshmen students were asked during the qualitative interviews about their expectations of college when they were in high school, first-generation students indicated they did not know what to expect. The transition from high school to college was a daunting idea that invoked a high level of apprehension; often leading to self-doubt. First-generation students expressed:

The transition to LWC was a wakeup call...I actually had to apply myself. I found it difficult to motivate myself to do the work.

I am a lot more stressed...in high school I just used to slack off...I never thought about my future and all I thought about was finishing high school. Now I actually have to focus...in high school I used to get a couple of weeks to finish assignments, but here the work is harder and there are deadlines.

In a similar way, non-first-generation students did not know what to expect, but their vague perception of college lead them to believe college would not be significantly more challenging than high school. The transition for the majority of this group of students has been relatively seamless. Despite some isolated cases, students appear to have coped with the transition far better than their first-generation counterparts.

The transition has been pretty easy...I have had no difficulties adjusting. However, the tests are difficult here...I only studied for my first test the night before, just like I would do in high school, but I didn't do so hot. Now I study a couple of days before my tests.

Things have gone smoothly...people at Lindsey Wilson are very welcoming. The only thing is my grades aren't as good as they should be.

It was interesting to note that most expectations and experiences were portrayed by students from an academic, rather than a social, perspective. Similarly, Tinto (1988) has suggested that the transition to college is shaped by educational goals and commitments.

The empirical and qualitative results suggest a greater need for enrollment management strategies in recruiting efforts that accurately convey and help prospective students understand LWC's academic environment and expectations. An orientation can increase a student's knowledge of the academic environment at the beginning of the college experience.

3. One of the most common themes that emanated from the qualitative interviews was the positive role of student-faculty interactions in and out of class. Students

reiterated the ease of approaching faculty, how understanding faculty are, and how willing faculty are to be of assistance wherever possible.

The transition to LWC could not have gone better...there is so much help here...the professors want everyone to succeed.

Faculty are always encouraging students...if you make a bad grade, faculty are willing to spend time with you so you can improve on future tests.

In the classes, it's easy to talk to the professors...it makes it a lot easier for them to understand you and you to understand what they are trying to teach you.

Faculty members at LWC serve as a catalyst to ensure students are academically integrated at the institution. While faculty members help students adjust to the new environment, it was evident that first-generation students were often too intimidated to converse with professors. One first-generation student refrained from participating in classroom discussions as she didn't want her professor to "think she was a dummy." The same student expressed her fear of approaching a faculty member outside of class until that faculty member approached her regarding an assignment. The student shared some difficult personal circumstances with the faculty member who listened and was supportive. In follow-up questions, it was uncovered that the student now feels comfortable with approaching faculty members. It is vital that faculty reach out to first-generation students, as this group of students strongly believes that getting to know and interacting with faculty is important to their success.

Factors Related to Intermediate Commitment to the Institution

There were several factors significantly and directly related to intermediate commitment to the institution that are linked to the conceptual framework for the first semester. These factors serve as additional aspects of the profile for "at risk" students at LWC and are used to describe ways students navigate the transition to college, which lead to a commitment to graduate from the institution.

Student Transition to College

Student comfort in making decisions related to college was directly related to intermediate commitment to the institution ($\beta = 1.947$; $p = .001$). Part of the separation stage is adjusting to an environment independent of past influences including parents and friends from high school (Tinto, 1988). Navigating a college's social and academic system independently can be a challenge for students. To ensure a successful integration of students into the campus culture, college administrators, faculty, and staff can adopt a supportive role but should encourage students to make decisions on their own. Part of an institution's "ceremony" for new students is educating students on how to navigate a college's bureaucratic system without the assistance of parents (Godwin & Markham, 1996).

Social Factors and Communal Potential

Student affiliation in the social system of a college as measured by feelings of acceptance at LWC was directly related to intermediate commitment to the institution ($\beta = 2.845$; $p = .001$). It is important to note that this item had the highest odds ratio of any significant variable in the logistic regression model (Appendix J). The odds are 17 times greater for intermediate commitment to the institution for each one unit increase in rating of acceptance. It is critical that LWC students are able to find affinity groups and gain acceptance within academic and social communities. Failure to learn the norms, attitudes, and behaviors required to gain membership in the social community can lead to reduced social integration and weaken the likelihood of student persistence (Braxton et al., 2004).

Four of five items associated with the construct of communal potential were directly related to intermediate commitment to the institution. Communal potential is defined as a student's perception that a subgroup exists within the college with whom they share values, beliefs, and goals (Braxton et al., 2004). This construct of communal potential bears a complex relationship with intermediate commitment to the institution as there are elements that are both negatively and positively related. The items, "there are students on campus that I would like to know better" and "other students encourage academic success", were both positively related to intermediate commitment to the institution ($\beta = 1.062$; $p = .026$ and $\beta = 1.659$; $p = .013$, respectively). It is important that students find a subgroup and community of students who have similar goals to the campus community at large.

On the other hand, two items within communal potential, "students seeing several ways to make connections with other students on campus" ($\beta = -1.476$; $p = .038$) and "confidence in finding students on campus that share important values" ($\beta = -1.856$; $p = .019$) were negatively related to intermediate commitment to the institution. This finding suggests that seeing ways of making connections and sharing values with other students might have been seen in a negative light in terms of commitment to the institution. Almost one in four students in the freshman cohort is from Adair County, a homogeneous area in terms of values, beliefs, and norms. If students desire a greater sense of diversity and don't foresee this occurring on LWC's campus, the likelihood of student departure increases.

Another indicator of social integration is involvement with a student club or organization on campus. Indication of plans to stay involved or become involved was positively related to intermediate commitment to the institution ($\beta = 1.895$; $p = .012$). Implied in this effort to become involved or stay involved is a construct called psychosocial engagement, a factor that leads to social integration (Braxton et al., 2004). Psychosocial engagement involves student investment of physical and psychological energy with other students and activities on campus. Extracurricular activities are a powerful way to connect students to the social environment. At residential institutions, involvement in clubs and organizations can foster social integration by developing friendships based on common interests (Christie & Dinham, 1991).

Factors That Do Not Directly Effect Intermediate Commitment to the Institution

A drawback of the logistic regression is that it only measures direct effects (Hirschy, 2004). While indirect effects on student departure can prove helpful for institutions, factors without a significant direct effect can dispel common assumptions. Despite the concerns indicated by students in the qualitative interviews regarding the academic rigor and the new behaviors that would be required of students, perceptions of coming to school underprepared, fear of failing, and spending more time “catching up” to peers was not associated with commitment to LWC. Many students expressed concerns about their family being able to pay for college, but this was not significantly different in the measure of intermediate commitment. Parental support, fear of failing, and perceived lack of preparation had no direct impact on intermediate commitment to the institution in the first semester. Initial commitment to the institution, indicated by LWC serving as a student’s first choice of institution to attend, was not directly related to intermediate commitment to the institution ($p = .114$). Given the many factors associated with student departure, it will be useful for institutional leaders to focus efforts on the direct effects indicated in the regression model.

Conclusions About the First Semester

In the first semester of college, Elkins et al. (2000) found that entry characteristics and level of commitment to the institution have the most significant impact during the separation stage. This is a stage that is critical for students to navigate as they enter LWC. From the literature on student departure, the project team devised a profile of “at risk” students and tested these factors in a logistic regression model. Opposite of what the “at risk” profile and literature suggests, higher socioeconomic status negatively effects intermediate commitment to the institution. Knowledge of the academic and social environment before attending college had opposite relationships with intermediate commitment to the institution. Knowledge of the social environment was negatively related, while knowledge of the academic environment was positively related. Findings from the qualitative interviews suggested that student-faculty interaction outside of class is an important factor to students at LWC. Although much of the “at risk” profile was not supported by the findings, it highlights the unique aspects of student characteristics that institutional leaders should consider.

Findings from the first semester of factors related to intermediate commitment to the institution—conceptually linked to subsequent commitment to the institution and student persistence—suggested further areas to include in the profile of “at risk” students at LWC. First-semester freshmen who are “at risk” of departure can be described as students:

- From higher income families.
- Who attend LWC without an adequate understanding of the academic environment before enrolling in the institution.
- Who have prior knowledge of the social environment of the institution.
- Who have minimal interaction with faculty members outside of class.
- Who lack independence in making decisions related to college.
- Who do not feel socially or academically accepted at the institution.

- Who do not see the potential of getting to know other students on campus and/or do not see other students encouraging academic success.
- Who see ways of connecting and sharing common values with other students, but do not make an effort to reach out to these students.
- Who do not plan to become involved in a student club or organization.

Findings from the first semester offer an initial glimpse into the factors that influence student departure at LWC, but should be considered together with the second-semester findings.

Second Semester:

Understanding Factors That Contribute to First-Year Student Departure

The project team administered a second-semester (spring 2009) survey to LWC's freshmen students and drew upon the findings of the first-semester qualitative interviews to determine factors that contribute to first-year student departure. In the linear regression analysis, student persistence was indicated by intent to re-enroll for the fall 2009 semester. Intent to re-enroll is a proxy measure for student persistence and is highly correlated with actual re-enrollment (Bean, 1980, 1983). Constructs used in the models were informed by Tinto's (1975) interactionist theory of student departure and the findings of Braxton et al. (2004) in revising Tinto's theory for both residential and commuter institutions.

Instruments and Methods of Analysis

The Collegiate Experiences Survey (CES), developed by Braxton (2006), was administered beginning on January 20, 2009 to a population of 338 full-time freshmen students enrolled at LWC. During advising week for first-year students, freshman advisors discussed the CES with all freshmen and provided them with instructions on completing the survey online. Two subsequent e-mails were sent as a follow-up to the survey population; one was sent by the vice president for academic affairs and the other by the freshman year experience director. The survey consisted of 128 closed-ended items and comprised several scales related to key concepts of Tinto's interactionist theory of student departure (Appendix K). A response rate of 52% ($N = 175$) was attained. As displayed in Table 25, respondents to the CES were representative of the freshman cohort for the second semester, except for first-generation students.

Four separate linear regression analyses were used to determine the factors predicting social integration, academic integration, subsequent commitment to the institution, and student persistence (intent to re-enroll). Five scales were developed around the core concepts of institutional commitment to student welfare (CommStWel), institutional integrity (InstInteg), academic integration (AcadIntegrat), active learning (ActivLearn), and social integration (SocInteg). Also included in the regression model were background characteristics including gender, first-generation status, and self-reported high school GPA. Dummy variables for residential students and working while attending college were also included in the model based on extant student departure literature (Braxton et al., 2004; Somers, Woodhouse, & Cofer, 2000). Three items were

Table 25: Characteristics of Second-Semester Survey Respondents and Second-Semester Freshman Cohort

	Collegiate Experiences Survey (CES)	2009 Second-Semester Freshman Cohort
Number of respondents	175	338
Response rate	52%	n/a
Female students	67%	60%
Minority students	13%	12%
Residential students	68%	68%
First-generation students	45%	77%
Students working while enrolled	57%	No data
Students enrolled in a freshman seminar course	86%	84%

combined into one variable for external environment that measured the degree to which parents and families support student persistence in college. Variable and scale definitions are available in Appendix K. Qualitative interview questions were based on Tinto's (1975) interactionist model and were used to supplement the quantitative findings.

Conceptual Framework for Understanding Student Departure

Tinto's Interactionist Theory of Student Departure

Tinto's (1975) interactionist theory of student departure nests academic and social integration within a series of commitments to the institution that lie at the heart of the student persistence. Initial and subsequent commitments to the institution are shaped by entry characteristics such as socioeconomic status. Academic and social integration indicate the level of congruence between an individual and the norms, attitudes, beliefs, and values inherent in both systems. Braxton et al. (2004) found that at residential institutions, the most salient aspects of Tinto's model dealt with initial commitments and factors affecting social integration, rather than academic integration. Pascarella and Terenzini (1983) asserted that social integration at residential institutions is inclined to have a "stronger direct affect on persistence than did academic integration" (p. 225). The ability of students to feel socially connected to an institution leads to "satisfaction, self-confidence, loyalty, fitting in, and remaining enrolled" (Bean, 2005, p. 229). As students learn to navigate the separation and transition stages, social integration facilitates a deeper engagement and further commitment to the institution.

Social Integration

Social integration is defined by student engagement and perceptions of congruence with attitudes, values, and norms at a student and institutional level (Braxton et al. 2004; Tinto, 1975). Braxton et al. (2004) identified six factors that influence social integration:

- *Commitment of the institution to student welfare* is a student's perception of the degree to which institutions communicate and ensure the growth and development of students. It comprises the degree to which students are treated equally, fairly, and respectfully.
- *Communal potential* is the degree to which students identify with the values, beliefs, and goals of a compatible subgroup of students within the campus community.
- *Institutional integrity* is a student's perception of whether an institution remains true to its mission by administering policies and procedures in a fair manner and accurately portrays itself internally and externally.
- *Proactive social adjustment* involves anticipatory socialization and learning new behaviors for modification to the norms, attitudes, and values of the social community.
- *Psychosocial engagement* is derived from Astin's (1984) theory of involvement where students demonstrate the physical and psychological effort to become engaged in the life of the institution.
- *Ability to pay* represents a student's level of financial certainty to remain at the institution.

Commitment of the institution to student welfare and institutional integrity are two of the six influences on social integration that were included in this analysis.

Academic Integration

Due to LWC's population of commuter students, academic integration was included in the analysis. Academic integration has received limited empirical support as a determinant of student persistence at residential colleges, but is a predominant factor at commuter institutions (Braxton et al., 2004). It is an important factor in student persistence for students with low levels of social integration (Pascarella & Terenzini, 1983). Commuter students at residential colleges balance life outside the university with on-campus commitments, constraining social involvement.

Academic integration involves a student's identification and congruence with the norms and values of the institution's academic system and meeting the institution's academic standards (Braxton et al., 2004). College faculty serving as "agents of socialization" can have a significant impact on academic integration. Stevenson, Buchanan, and Sharpe (2006) posited that student persistence, and ultimately student success, is dependent on the influence faculty members have on students. Kuh, Kinzie, Schuh, Whitt, & Associates (2005) stated "meaningful interactions between students and their teachers are essential to high-quality learning experiences" (p. 207). In the absence of constant interactions between students and faculty members, the commitment of students to an institution wanes, individual goals are lowered, and students become isolated from the intellectual life of the institution; all of which contribute to the likelihood of student departure (Tinto, 1987).

Active Learning Pedagogies

Many students arrive at less selective institutions like LWC underprepared for its academic environment. First-generation students who are often from a lower socioeconomic status and have lower SAT scores (Bui, 2002), have difficulties connecting with faculty. Active learning pedagogies in the classroom are an important part of the transition for students into a college environment. Active learning involves “classroom-based problem solving, peer tutoring, service learning and other community-based projects, internships, and involvement in a variety of educationally purposeful activities outside of class” that create conditions for student success (Kuh et al., 2005, p. 69). Activities associated with this concept include in-class debates, problem-based learning, collaborative projects, service-learning, and reflection-based activities. These active learning pedagogies informed the project team’s approach and interpretation of the findings on student departure during the second semester at LWC.

Findings from the Second Semester

The linear regression table in Appendix K summarizes the regression results for the dependent variables of social integration, academic integration, subsequent commitment to the institution, and persistence. Betas (β) are standardized coefficients, which enabled the project team to observe the relative magnitude of the independent variables. Colinearity tests were performed for each of the analyses and all variables were within acceptable ranges (Ethington & Thomas, 2002). Statistical significance was determined using an identified maximum probability of $p \leq .05$.

Influences on Social Integration

In the first model, working while enrolled in college negatively affected social integration ($\beta = -.232$; $p = .001$). It stands to reason that students who spent a large amount of time working did not have time to spend participating in social activities or finding subgroups on campus that share their values, beliefs, or attitudes. This finding coincides with Somers et al. (2000) who found that students working full-time were less likely to be integrated into the campus environment.

Eighty-six percent of students in the qualitative interviews worked while enrolled full-time during their freshman year. Working commuter students have limited time on campus, which is spent attending class and meeting with faculty members, if necessary. Students who work commented on the difficulties associated with balancing school and work, while trying to connect with other students on campus.

In addition to going to school, I work 30 hours a week so my time is very limited...I also want to focus on my studies before jumping into a student organization and then realizing I can’t handle everything.

Before class this morning, I worked at a gas station from 4:30 a.m. to 8:30 a.m. I then had class and then I went to my work-study job.

I only have classes on two days a week and the rest of my time I work as a waitress. I work 30-40 hours every week.

Students reiterated that despite their time restrictions, they are consistently encouraged by faculty, freshman advisors, and administrators to participate in extracurricular activities or student organizations. These activities often form the basis for students to develop personal relationships, build a support network, and mature as an individual. Students expressed an interest in joining a student organization once they were established at LWC and familiar with daily routines. In the first-semester analysis, this was found to have a direct positive effect on intermediate commitment to the institution. Organizations that were the most appealing to students were Achieving Collegiate Excellence (ACE) and the Alpha Phi Omega Service Fraternity.

Living on campus positively affected social integration ($\beta = .161$; $p = .023$). Combined with the previous findings related to students who work, these results indicate that non-residential students who work were likely to experience low levels of social integration. Relationships that are formed in residence halls can assist students integrate into the campus culture. For first-generation students, Billson and Terry (1982) recommended residential living to facilitate growth, peer support mechanisms, and a commitment to a college's social environment. One common practice, according to the dean of admissions at LWC, is encouraging students from Adair County, typically first-generation students, to live off-campus because it is less expensive than living on-campus. This may be detrimental to fostering levels of social integration and student growth. The propinquity of residence halls to social and academic events on-campus provides students with more opportunities, compared to living off-campus, to become integrated with the campus community.

In the qualitative interviews, students stressed the importance of finding a diverse group of friends to enhance their levels of social integration. One student remarked:

I've really made an effort to try and make friends that are from outside Adair County so that I don't get trapped in only being surrounded by people that I've grown up with and that know me.

This "trap" of familiar relationships reinforces the first-semester findings, which suggested that finding connections and sharing values with others were negatively related to intermediate commitment to the institution. In contrast, one student (who subsequently departed from LWC after the fall semester) shared her perspective expressing her level of commitment:

I was hoping that I wouldn't meet anybody here...I was afraid I'd want to stay. I didn't want any more friends, because I was happy with the friends I had back home.

Two constructs that explained a statistically significant portion of the variance within the regression analysis were commitment of the institution to student welfare ($\beta = .248$; $p = .009$) and institutional integrity ($\beta = .233$; $p = .012$). Commitment to student welfare was based on student perceptions that an institution's administration, staff, and faculty are committed to student growth and development. It is also manifested in the perception

that students are treated equally, in addition to the institution's efficacy in communicating a high value on students (Braxton, 2006). This coincides with the NSSE's supportive campus culture measure, where LWC scored in the top 10% nationally. These findings also suggest that commitment to student welfare influences social integration.

Findings from the qualitative interviews further validated the importance of institutional commitment to student welfare and institutional integrity. One theme that emerged from the interviews was the role of admission counselors in building strong relationships with students before they arrived at LWC. The concern with this, as voiced by administrators, is that students continue to depend on admission counselors for support once they are enrolled, rather than seeking assistance from appropriate personnel on campus. One student expressed:

I think admissions does a good job of getting students here...but I think a lot of students, and I know I did, was like, I don't have my admissions counselor anymore, so who do I go to?

Several students mentioned that when they need assistance on campus, they return to the admissions staff for guidance and support. Students understand that the admission counselors are committed to their welfare, but it is impractical to expect admission counselors to continue supporting students to such a high degree, while being able to effectively continue with their recruitment efforts.

Institutional integrity indicated the degree to which students see the "every student, every day" mission as congruent with institutional policies and administrative actions. Students who viewed the mission as being consistent with institutional actions were more likely to be socially integrated. The "no alcohol policy" and "guest policies" in the residence halls were viewed favorably by several students during the qualitative interviews. Students did not comment extensively about institutional integrity, but focused on the degree to which administrators, faculty, and staff care about students. Most students believed that LWC's communication of its mission and goals were congruent with institutional actions and decision-making.

Influences on Academic Integration

Academic integration was tested as a dependent variable in the linear regression analysis (Appendix K). Lohfink and Paulsen (2005) concluded from their study, "participation and involvement in academic activities may be more important to first-generation students than social activities" (p. 421). The project team found institutional integrity and external environment had significant direct effects on academic integration when controlling for other variables in the regression model. Institutional integrity and the external environment influenced the degree to which students experience both the structural integration of academic standards and the normative integration of values, beliefs, and norms espoused and embedded in the academic system (Tinto, 1975).

Institutional integrity had a significant positive impact on academic integration ($\beta = .356$; $p = .00003$) and explained a substantial degree of the variance within the regression analysis. The more frequently LWC's academic mission is communicated and embodied, the greater the degree of academic integration experienced by students. The legitimacy of academic policies and procedures were affirmed by students through the qualitative interviews. Another important aspect of institutional integrity is that LWC accurately portrays itself to internal and external constituents. In the first-semester analysis, knowledge of the academic environment was positively related to intermediate commitment to the institution. Along with the second-semester findings for academic integration, this reinforced the importance of the institution actively building student expectations of academic life. LWC faculty can articulate high expectations in terms of challenging students academically, but should "develop reciprocity and cooperation" among students, in addition to providing students with prompt feedback (Chickering & Gamson, 1987).

External environment of parental support played an important role by having a significant direct effect on academic integration ($\beta = .266$; $p = .0001$). The interviews revealed that parental support, or lack thereof, can begin early, even before the student enters college.

My father initially didn't want me to go to college. He expected me to get married right out of high school. He did not have much faith in the education system and didn't like the idea of me growing up away from home.

Some students experience a level of incongruence between what they desire from a college education and the expectations of their parents. In the separation stage, students begin to make independent choices, as discovered in the first-semester analysis, but many remain in need of familial support. Many students travel home on the weekends because they rely on the support provided by their families. The degree to which parents encourage and support their student's academic success, as well their congruence with an institution's academic values, can make a significant difference to a student's level of academic integration.

Second-Semester Subsequent Commitment to the Institution

Scales for social and academic integration were not related to subsequent commitment to the institution in the regression models. The variance was explained by commitment of the institution to student welfare ($\beta = .286$; $p = .001$), external environment ($\beta = .349$; $p = .001$), and living on campus ($\beta = -.139$; $p = .034$). Commitment to student welfare, related to both social and academic integration in previous analyses, is a major factor within subsequent commitment to the institution. External environment of parental and familial support had a profound impact on LWC's students remaining enrolled in college. Students frequently referred to their parents as their "best friend" and were considered a reliable source of support for students.

Consistent with first-semester attrition rates for freshmen students in which a majority of those who left were residential students, living on campus negatively affected subsequent

commitment to the institution ($\beta = -0.139$; $p = .034$). This is consistent with the finding that although living on campus is related to social integration, social integration is not related to subsequent commitment to the institution. There are several possible explanations. Residential students often come from out-of-state or live more than 2 hours from campus and with a lack of activities on campus during weekends, these students may become isolated and fail to become integrated into the campus culture. Another explanation could be that students with higher levels of cultural capital have a difficult time living in Adair County, as could be the case with higher income students in the first-semester analysis. One student who departed after the first semester expressed difficulties in getting used to living in a rural community after living in a large city.

Factors That Contribute to Student Persistence

The linear regression analysis focused on intent to re-enroll and indicated several statistically significant factors that influence student persistence at LWC. Braxton et al. (2004) found that social integration played a significant role in persistence at residential colleges. However, controlling for other factors in the regression model, academic integration, rather than social integration, significantly and positively influenced student persistence at LWC ($\beta = .140$; $p = .020$). Accordingly, LWC is similar to commuter colleges in Braxton et al.'s (2004) revision of Tinto's model (1975).

In Braxton et al.'s (2004) revised model of student departure at commuter colleges, external environment of parental support plays an intermediate role in influencing subsequent commitment to the institution. However, at LWC, external environment in the regression model had a positive direct effect on persistence ($\beta = .350$; $p = .0007$). The impact that the external environment had on academic integration, subsequent commitment to the institution, and persistence should result in LWC developing strategies that will foster a closer relationship between families and the institution.

Subsequent commitment to the institution had positive and direct effects on persistence ($\beta = .568$; $p = .0001$). This finding is validated by previous studies, including Braxton et al. (2004) who found a strong relationship between subsequent commitment to the institution and student persistence. The antecedents of subsequent institutional commitment, living on campus and institutional commitment to student welfare, had indirect positive effects on student persistence.

One surprising finding in the final regression model was that institutional commitment to student welfare was negatively related to persistence ($\beta = -.142$; $p = .039$). Throughout the qualitative interviews, students often mentioned how helpful faculty were and frequently provided students with multiple opportunities to make revisions to assignments in order to earn a higher grade. Perhaps one explanation for the negative effects of institutional commitment to student welfare could result from the fact that students are not sufficiently challenged academically. Institutional leaders should be encouraged by NSSE results indicating LWC's supportive campus culture, but LWC should be cautious of extensively nurturing students. During the qualitative interviews, too much support and a lack of academic rigor was consistently implied.

Summary for the Second Semester and Persistence

In the second semester, the project team examined student departure for the freshman cohort through linear regression analyses testing factors that lead to social integration, academic integration, subsequent commitment to the institution, and persistence (intent to re-enroll). A student working while enrolled had a negative direct effect on social integration, while living on campus had a positive direct effect. Commitment to student welfare had a positive direct effect on social integration, but a negative effect on persistence. Institutional integrity had positive direct effects on both social integration and academic integration.

The importance of the external environment or level of parental and familial support for students was a consistent theme that emerged through the models. External environment directly affected academic integration and student persistence. The role of parental and familial support cannot be understated and perhaps this is where having first-generation college students with lower cultural capital, often from families with lower incomes, is the most salient.

Persistence (intent to re-enroll) was directly influenced by academic integration, external environment, and subsequent commitment to the institution. However, it was negatively related to commitment of the institution to student welfare. One explanation the project team provided was the scenario of too much support, students not being challenged enough academically, or a lack of opportunities for personal growth. Kuh (2005) found that a high level of academic challenge is part of exemplary campus efforts to foster student success. Academic integration directly influenced persistence at LWC, although Braxton et al. (2004) have found this to be more indicative of commuter colleges. As discussed in the strategic marketing analysis, LWC communicated more of a socially-oriented message and image through its viewbook. Perhaps the institution can shift its communication efforts to emphasize the institution's academic environment.

While attempting to understand the factors that contribute to student persistence at LWC, it is important to consider the institution's attempts at assisting students integrate into the campus environment, thereby reducing student departure. One effort designed to accomplish this task has been the Freshman Seminar course offered in the first semester and coordinated by the Academic Success Center.

Freshman Seminar as an Institutional Lever to Reducing Student Departure

Student success is largely dependent upon student experiences during the first-year of college or university (Upcraft, Gardner, Barefoot, & Associates, 2005). Consequently, first-year experience programs are widely used for institutional retention and are designed to "foster [student] integration into campus communities and help align personal goals with institutional goals" (Noble, Flynn, Lee, & Hilton, 2007, p. 39). As institutions develop first-year experience programs to address issues of student departure, Crissman Ishler (2005) stated it is "incumbent on every institution to know who its students are" (p. 26). Rather than becoming isomorphic with other colleges and universities, institutions must develop an understanding of their students, their academic

capabilities, and the expectations students have of themselves and the institution (Kuh, 2005).

The project team was able to gain insights into the Freshman Seminar course through qualitative interviews, review of syllabi, and discussions with the freshman year experience director. According to the 2008 syllabus, “The Freshman Seminar is designed to assist first-year students with their transition to LWC on an academic and social level.” Student responses to the relevance and value of the Freshman Seminar were mixed. From a social perspective, the course appears to be meeting its desired objectives, especially as students affirmed that the course has provided opportunities to develop meaningful relationships with peers and become aware of extracurricular activities.

Freshman Seminar brings people together and encourages teamwork. I have met people I would never have met if it wasn't for the class. Through the class, I have come to realize how diverse the campus is.

The class helps people get involved in activities and keeps people from being stuck in their room.

Freshman Seminar is a motivating class. It shows us that everyone is going through the same challenges, but if we set our minds on something, we can accomplish it.

However, Freshman Seminar failed to academically challenge students. Despite certain components of the course that student indicated were useful, such as sessions on note taking, study skills, and time management, many students struggled to identify with the academic relevance of the course. The required text, *Missing Mountains*, was widely criticized. The book was effective in creating classroom discussions, but a combination of local, national, and international students failed to see the relevance of the book. Some impressions of the course included:

I'm not real sure what the point is of Freshman Seminar, because we have it once a week and it is really hard to keep up with what's going on. I've actually thought about going to my advisor and asking what the point is.

I have formed a closer relationship with my advisor through Freshman Seminar, but the course is not challenging and it has not helped me with my academics.

Freshman Seminar is kind of a fluff class...I realize that *Missing Mountains* is probably a good book, but I don't think that it's relevant for the class. Lots of students can't relate to it and don't want to read it.

Through the study, the project team uncovered two interesting findings that pertained to Freshman Seminar. Students were asked on the Collegiate Experiences Survey (CES) whether they enrolled in a Freshman Seminar course during the first semester. Although

Freshman Seminar is mandatory for all freshmen students, nearly 14% of freshmen did not enroll in the course. In conversations with students and administrators, the project team learned that this group of students was excused from participating in a Freshman Seminar course due to scheduling conflicts.

A further observation was that certain Freshman Seminar courses were clustered in homogeneous groups. One section was comprised primarily of students who were interested in biology and another class consisted of students who predominantly came from Adair County. While grouping students together according to their academic disciplines in a first-year experience course may lead to positive outcomes, it may also result in unintended outcomes. The goal to integrating students within an institution diminishes once students are subjected to taking a class—one that is intended to assist students acclimate to their new environment—with peers whom they already have established relationships. There were mixed reviews on the homogeneity of this class, considering that the course purported to “establish a respect for diversity.” As students expressed:

My Freshman Seminar class helps, but there is just one person in it that is not from Adair County; so it is just like being in high school.

My Freshman Seminar class randomly ended up being all people from Adair County...in a way it has been good...we have different kinds of concerns than other people on campus.

While many first-year experience seminars use student affairs personnel, administration, and faculty to teach the course, over the years there has been an increase in the percentage of faculty serving as first-year instructors and incorporating more traditional academic content in courses (Hunter & Linder, 2005). The role of faculty in retention programs is imperative as teaching methods impact student departure rates (Berger & Braxton, 1998). Teaching does “not automatically” ensure the achievement of student learning, but varying pedagogical approaches are inclined to have a positive effect on student engagement while increasing learning levels (Kuh 2005, p. 66). Hunter and Linder (2005) asserted that the focal point of first-year experience seminars should revolve around “individual needs” of entering students and should have “broad-based campus support.”

Hunter and Linder (2005) developed several recommendations for Freshman Seminar courses. Table 26 indicates the differences that exist between LWC’s Freshman Seminar course and Hunter and Linder’s recommendations. First, LWC’s Freshman Seminar is not centered in the first-year curriculum. Incorporating the course in learning communities where students take several first-year core courses together is one way that institutions integrate Freshman Seminar with other courses (Hotchkiss, Moore, & Pitts, 2006). Although LWC does provide an instructors manual and holds a series of meetings to prepare instructors for the semester, opportunities for continual training and

professional development are not prevalent¹². And finally, no measures have been constructed to assess the effectiveness of LWC's Freshman Seminar courses.

Table 26. Matching LWC's Freshman Seminar Course to Hunter and Linder's (2005) Recommendations

Hunter and Linder (2005) recommendations for Freshman Seminar	LWC's Freshman Seminar	
	YES	NO
Offer academic credit for enrolled students in Freshman Seminar	X	
Ensure the seminar is centered in the first-year curriculum		X
Collaboration between academic affairs and student affairs should take place during the design phase and instruction	X	
Continual training and development should be offered to instructors		X
Compensation should be offered to instructors for teaching the seminar	X	
Assessments of the seminars should be conducted and the results disseminated to the campus community		X
Upper-level students should be associated with the seminars	X	

LWC's Freshman Seminar is offered for one credit and only meets for an hour each week. Administrators should consider Hunter and Linder's finding that students who participate in first-year experience seminars with 2 or 3 contact hours per week, compared with only 1 contact hour per week, reported higher gains on 9 of 10 outcomes including "improved study strategies, improved connections with peers, increased out-of-class engagement, satisfaction with college or university, and [a] sense of belonging and acceptance" (Hunter & Linder, 2005, p. 282).

Before implementing a Freshman Seminar, Cavote and Kpoera-Frye (2006) suggested that an institution-wide analysis determine the needs of the campus and define specific outcomes for the course. LWC's Freshman Seminar has incorporated some of these elements, but with feedback from students and adaptations from best practices, the Freshman Seminar can become a powerful policy lever for reducing student departure.

Connections Between First- and Second-Semester Findings

"At-Risk" Freshmen Students at LWC

In an effort to consolidate the analyses and findings from the first and second semester, the project team revised the initial profile for "at risk" students to provide institutional

¹² Obtained from LWC's freshman year experience director.

leaders with a more accurate description of LWC's "at risk" students. LWC's freshmen students are "at risk" of departure if they:

1. Have not successfully navigated the separation stage and experience difficulties in making independent decisions related to their college experience.
2. Have parents who lack an understanding of the college environment and do not support or encourage their college experience.
3. Did not know about LWC's academic environment prior to enrollment.
4. Do not perceive that their educational aptitude is congruent with the values, norms, and beliefs of the academic system.
5. Experience an imbalance between LWC's commitment to student welfare and their expectations of the academic environment.
6. Live on campus and do not see the value of connecting with students through student clubs and organizations.
7. Live on campus and have past educational and cultural experiences that are not congruent with campus activities and programs.
8. Do not feel accepted, valued, or respected by fellow students, administrators, faculty, and staff in day-to-day interactions.
9. Work off-campus and do not believe institutional policies and procedures are congruent with LWC's mission and values.
10. Come from a higher socioeconomic status and are not challenged academically or are not provided with opportunities to participate in enriching experiences.
11. See the potential to make connections and share values with other students, but do not feel accepted within the campus community and find it difficult to connect with students who encourage academic success.

Conclusions About Student Persistence

Student persistence is a cumulative and longitudinal process. In order to enhance levels of student persistence, LWC must develop a clear understanding of who their students are, treat each student as potentially "at risk" of departure, convey a genuine interest in student growth, and focus retention strategies on first-year students (Hermanowicz, 2003).

The study of first- and second-semester freshmen experiences at LWC highlighted several important factors. The separation stage of student persistence was characterized by a student's prior knowledge of LWC's academic environment, ability to make independent decisions, feeling accepted within the campus community, finding potential students to become better acquainted with, identifying students who encourage academic success, and intentions of becoming involved with a student organization.

Living in residence halls negatively affected subsequent commitment to the institution but positively affected social integration. As a result, LWC should focus on meeting the social expectations of residential students. Working while enrolled and a limited number of activities during the weekends serve as significant barriers to social integration. If working students fail to become academically integrated, the likelihood of their departure from LWC increases.

The external environment of parental and familial support had a consistent and prominent direct affect on academic integration, subsequent commitment to the institution, and persistence. Close to 80% of freshman parents did not attend college. Although parents may support their student's decision to attend college, they may not know how to effectively support their student during the college experience.

Many students go home on the weekends and assist with family needs. Students indicated that their parents provide invaluable support while being at home, but it is a struggle to balance the completion of their academic requirements with having to assist in meeting family obligations. It is important for LWC to encourage parents to become involved in aspects of campus life, including freshman orientation and social events like Parents' Weekend to gain a deeper appreciation of the requirements and challenges college students encounter (Hermanowicz, 2003).

Academic integration at LWC had significant direct effects on persistence. Focusing the Freshman Seminar course on academic values is an opportunity for faculty to collaborate with the Academic Success Center to enhance the levels of academic integration among first-year students. While social integration is important, academic integration at LWC is critical to student persistence.

Faculty interaction and affirmation of students are clearly strengths of LWC and were indicative of the institution's commitment to student welfare and academic integration. This should become more of an intentional process by involving additional faculty in freshman advising and facilitating opportunities for faculty interaction with students at social events on campus. The more time faculty dedicates to students, the more likely students are to continue their education (Longwell-Grice & Longwell-Grice, 2008).

Commitment of the institution to student welfare and institutional integrity were salient and prominent factors in student persistence at LWC. Consistent across each dependent variable in the linear regression, commitment of the institution to student welfare was necessary to increase subsequent commitment to the institution. However, commitment of the institution to student welfare had negative effects on student persistence and should be encouraged with caution. Commitment of the institution to student welfare should also be considered in the context of external support and academic integration.

Structural Limitations to Reducing Student Departure

Enrollment driven, less selective private colleges like LWC face inherent challenges to decreasing first-year student departure rates. Unfortunately, Freshman Seminar and the Academic Success Center have shown limited success with increasing persistence rates among first-year students at LWC. Institutional leaders have committed to utilizing resources more effectively in an effort to reduce student departure.

Ryan (2004) explored the relationship between institutional expenditures and degree attainment at baccalaureate colleges and found that instructional and academic support expenditures produce a positive and significant effect on graduation rates. In a study of

enrollment rates at 2-year colleges, Wyman (1997) found a strong relationship between total full-time equivalent enrollment and first-year retention rates. These findings suggest within institutional policy levers there are constraints to reducing retention rates.

To assess the realities of LWC achieving its mission, the project team posed the question: What are the structural limitations to increasing retention rates for first-year students at LWC? The structural limitations were derived from a linear regression analysis, which included variables pertaining to student characteristics, institutional resources, and environmental factors impacting full-time retention rates. Additional limitations were inferred from the previous regression analyses pertaining to factors that contribute to student departure at LWC.

A linear regression analysis was conducted using a group of 18 institutional level variables gathered from IPEDS and U.S. Census data for counties in which the institutions are located. Using an institution's 1995 Carnegie Classification, a dataset of 210 non-selective private Liberal Arts II institutions was gathered for the analysis.

The first set of variables was based on research indicating that low income and first-generation students are at greater risk of departure (Billson & Terry, 1982). Federal need-based aid and average federal student aid were used as indicators to determine institutional characteristics related to socioeconomic status. U.S. Census data provided median family income and percentage of people with a high school degree or less. Adair County posts a median household income of \$24,055, has 24% of its population living below the poverty line and is home to almost 1 in 4 of LWC's freshmen students. The second set of variables was guided by research indicating that more selective institutions have higher retention rates (Hermanowicz, 2003). These variables included average SAT scores, admitted and yield rates, and percentage of female, minority and full-time students. The third group of variables included full-time equivalent enrollment, a measure of institutional size, and variables related to institutional resources— instructional expenditures, average faculty salary, and student service support expenditures (Ryan, 2004; Wyman, 1997). The final set of variables included average institutional aid, average amount of student loans, average local and state grant aid, and tuition and fees (Astin, 1975).

Natural logs were calculated for the expenditure and monetary variables. Natural logs are transformations that are routinely undertaken in economic analyses based on “the principles of diminishing marginal productivity of inputs in production theory” (Ryan, 2004, p. 102). The linear regression was weighted by full-time equivalent enrollment in which a “normalized weight” was calculated by dividing institutional enrollment by average enrollment.

Findings

The linear regression table and variable definitions are included in Appendix L. Colinearity tests were conducted for the variables and each were found to be within acceptable ranges (Ethington & Thomas, 2002). In the regression model, which included 18 variables, three variables were found to have a significant relationship with retention

rates. Statistical significance was determined using an identified maximum probability of $p \leq .05$. Controlling for other factors in the model, average SAT scores, higher FTE enrollment, and instructional expenditures all had direct positive effects on retention. Students with higher average SAT scores positively affect retention rates ($\beta = .222$; $p = .003$). Over the past 60 years, researchers have linked socioeconomic status to academic achievement (Flinspach, Banks, & Khanna, 2003). Within the realm of private non-selective institutions, full-time equivalent enrollment plays a significant role ($\beta = .210$; $p = .012$). Consistent with Ryan's (2004) finding, instructional expenditures have a direct positive relationship with student persistence ($\beta = .221$; $p = .005$).

Discussion

Several variables significantly related to persistence provided some structural limitations for LWC. Two structural limitations stemmed from the regression analysis on structural limitations, while a third structural limitation emerged from the regression analysis in the section on reducing first-year student departure. These limitations included:

1. Size of enrollment: LWC has experienced an increase in enrollment over the past 5 years. However, the institution is constrained financially and faces challenges with increasing enrollment as it currently admits 80% of applicants, coupled with a yield rate of 24%. Percentage admitted and percentage yielded were not significantly related to persistence. This finding, combined with the evidence of increased enrollments resulting in improved retention rates, suggests that LWC should explore avenues to increase enrollment. However, this is a bounded possibility for the institution as increasing enrollments beyond a critical point may impede the institution's ability to fulfill its mission.
2. Lower academic achievement in underprepared student populations: The underprepared students that LWC is committed to serving create a structural challenge in reducing student departure. The success of these students is constrained by a larger context of influences including external environment of parents, peer influences, academic rigor of high school, and the availability of community and school resources to support students.
3. Commitment of the institution to student welfare: From the regression analyses of factors that contribute to first-year student departure at LWC, the project team discovered that while commitment of the institution to student welfare had an indirect positive role with impacting student persistence, conversely it had a direct negative relationship with student persistence. The abiding concern and care for students' growth and development must be balanced with institutional integrity, external support of parents, and academic integration.

A policy lever that directly affected retention rates was instructional expenditures, which consists of general academic instruction, occupational and vocational instruction, and preparatory and basic adult education (IPEDS, 2008). This finding was consistent with Ryan's (2004) study, which indicated that instructional expenditures can be used to reduce student departure.

Average SAT scores (converted from ACT scores) are lower at LWC and are indicative of underprepared students. While remedial education is offered to students, there are limits as to the impact it can have on retention rates. Given LWC's mission, location, and student demographics, the institution is faced with the harsh reality that reducing student departure may be a constant issue that institutional leaders will always have to contend with.

Limitations of the Project Analyses

Several limitations in the methodology and implementation of the study are important to discuss. The Admitted Student Questionnaire (ASQ) and the Enrolled Student Questionnaire's (ESQ) common sections, which formed the basis of the strategic marketing analysis, did not ask students to compare LWC to other institutions. It would have been helpful to understand student perceptions of LWC in comparison to competitor institutions in areas related to student departure. Additionally, the ASQ was disseminated by e-mail midway through the first semester to students not attending LWC and consequently received a low response rate.

Part II of the study on reducing first-year student departure consisted of several limitations. Identifiers were not used to empirically connect first- and second-semester data from the ESQ and Collegiate Experiences Survey (CES) to provide more of a linear picture of Tinto's (1975) interactionist model. Initial commitment to an institution is linked with subsequent commitment to an institution in literature on residential colleges (Braxton et al., 2004), but it was not possible to empirically link in this study. Other elements in Tinto's (1975) interactionist model, including academic integration in the first semester, psychosocial engagement, proactive social adjustment, and communal potential in the second semester could have been included to provide a comprehensive perspective of the model. A further limitation, intermediate commitment to the institution, was conceptually linked to student persistence, but not empirically linked to initial commitment to the institution in the results of the logistic regression. Initial commitment to the institution is directly linked in the literature to subsequent commitment to the institution, and therefore plays an important role in student departure (Braxton et al., 2004). A limitation in the second-semester analysis was that intent to re-enroll was used as a proxy measure of student persistence.

The study was designed to focus on reducing first-year student departure and the findings should not be generalized to upperclass students. In addition, self-selection in the surveys serves as a threat to internal validity. Students who were more favorable to the institution, more motivated, and integrated into the campus culture may have been more likely to participate in the surveys. Thus, the population of most concern to the study may have been underrepresented. These limitations should be taken into consideration when interpreting the findings and recommendations.

Recommendations and Suggestions for Implementation

The purpose of this project was to provide LWC with an evidence-based analysis on two critical areas of the institution's forthcoming strategic management plan. The project team focused on a strategic marketing analysis to enhance LWC's market position and identified factors attributable to reducing first-year student departure. Based on the study's findings and extant literature, the project team developed the following recommendations:

Recommendations Related to Strategic Marketing Analysis

1. Develop a marketing campaign that enhances LWC's value proposition. In times of economic hardship, students and families gravitate to less expensive institutions, which bodes well for public institutions, but requires that LWC embark on marketing strategies that will heighten its value among external constituents. The following components should be considered within the marketing campaign:
 - Creation of additional marketing materials to complement the newly created admissions viewbook for 2009-2010. These materials should include targeted and transparent messages that differentiate LWC from competitors. These messages should highlight:
 - The importance and value of a 4-year college degree in today's environment. With the large interest in LWC from first-generation students this message is critical to attracting and retaining students. An emphasis should be placed on the lifetime earnings of individuals with a 4-year college degree compared to those with a 2-year degree and high school degree.
 - The racially and geographically diverse student population. Illustrations of students being integrated academically and socially within a diverse campus community are important for national and international students.
 - The availability and accessibility of federal, state, local, and institutional grants for students attending LWC. An increased emphasis should be placed on the high percentage of students receiving various forms of grants, particularly institutional grants. Many of LWC's prospective students and parents are not familiar with the complexities of higher education's financial aid system. Consequently, LWC should become proactive in educating students and parents on the variety of financial aid programs available.
 - The benefits of LWC's small environment and location. Prospective students and parents should have a clear understanding that LWC's small and intimate environment contributes to student success. The personalized attention students receive from faculty, staff, and administrators should be prominently displayed as LWC remains true to its mission of "every student, every day."
 - The institution's adaptability to structure a student's class schedule around their work schedule. As the average age of students attending colleges and universities climbs, it is important for LWC to make students aware that obtaining a LWC education while working is feasible.
 - The nationally acclaimed sports programs, in addition to a campus culture that fosters a high degree of school pride and spirit among all Blue Raiders.

- Launch a website with a heightened focus on the institution’s academic environment and the active role that a community of learning has in fostering student growth and success. While an institution’s social environment contributes to a student’s college experience, it is the academic environment that typifies the existence and success of an institution. Given the surge in the number of students researching colleges and universities through institutional websites, it is vital that LWC’s website become an interactive and user-friendly feature that depicts the college as an academic institution of the 21st century.
 - Use social networking sites like Facebook, MySpace, and Twitter to stimulate the interests of prospective students. LWC can utilize social networks to provide valuable information to students about the college, which may have a positive impact on enhancing their commitment to the institution.
 - Use of technology that includes text messaging, flash videos, and podcasts to communicate with internal and external constituents. As traditional forms of communication with “millennials” are perceived as antiquated, new technologies should be incorporated to communicate efficiently and effectively with varied audiences. Through multiple media streams, prospective students should be able to gain a realistic and accurate perspective of what current students experience at LWC.
 - Increase community outreach efforts. Given that 58% of LWC’s freshmen live within a 60 mile radius of campus and the close proximities of competitor institutions, it is vital that LWC become a household name within surrounding communities. LWC should distinguish itself from competitors and heighten their commitment to service learning projects.
2. Rather than developing marketing and competitive strategies based solely on competitor institutions, LWC should incorporate, where possible, strategies that emulate those used by aspirational institutions. According to President Luckey, these institutions include LaGrange College, Otterbein College, Bellarmine University, and Lee University. The exemplary practices and features of these institutions should be noted. For instance, LaGrange College’s viewbook emphasizes a strong academic environment and prominently features the outcomes associated with obtaining a LaGrange education—teamwork, critical thinking, and ability to communicate¹³. By adopting this strategy, LWC will begin to establish a campus culture where faculty, staff, administrators, and students become committed to an unprecedented level of academic excellence.
 3. Omit the prominence of the institution’s student-to-faculty ratio in marketing materials. With the growth of LWC’s enrollment over the past couple of years, the student-to-faculty ratio of 19:1 no longer serves as a competitive advantage when compared with student-to-faculty ratios of larger public competitors. Alternatively, LWC can promote small class sizes, the personal attention students receive, and a place where every student “learns and grows and feels like a real human being.”

¹³ Retrieved March 10, 2009 from: <http://www.lagrange.edu/>

4. Create more opportunities for students to enroll in distance education courses across multiple academic programs. In accordance with LWC's mission of "every student, every day" and the busy lives students lead, increased options for enrollment in distance education courses will contribute to a more fulfilling experience for students by meeting their demands for flexible schedules. Recognizing and responding to market needs is a necessity in today's highly competitive environment. Distance education courses will also allow the institution to cater to new target audiences and generate an additional revenue source.
5. The Office of Admissions should expand its targeted regions for recruiting students. While prospective students are interested in institutions that are close to their home or larger towns, LWC's focus on prospective students within 60 miles of campus limits its ability to attract a diverse student population. LWC is too dependent on attracting students within a close proximity to campus and should devote institutional resources to bolster recruitment efforts on a regional, national, an international level.

Recommendations Related to Reducing Student Departure

The following recommendations for reducing student departure are organized into four categories: strategic partnerships, structure of the first-year experience, building community, and institutional leadership.

Strategic Partnerships

6. Actively involve parents during freshman orientation. Parent sessions should be hosted in tandem by faculty and student affairs personnel during freshman orientation so that parents become aware of how to support their student's pursuit of a college degree. It is important that parents develop an understanding of the academic requirements imposed on students, in addition to the services, such as the Academic Support Center, available for students to take advantage of. Parents should also be encouraged to participate in social events on campus such as Parents' Weekend.
7. Parents should be kept engaged with LWC through newsletters and e-mails outlining changes to the academic calendar, cultural and social events on campus, and the importance of parental support throughout the year. The academic warning system should be used to provide periodic updates to parents regarding their student's academic progress.
8. The quality of the institution's academic environment should be continually emphasized. Admission counselors should ensure that prospective students and families have a clear understanding of LWC's academic environment during open houses and college fairs. Small class sizes, faculty dedicated to teaching, individual support systems, and available academic majors are important to highlight. Prospective students must develop a concrete understanding of the "LWC experience," in addition to the responsibilities and adjustments associated with becoming a college student.

9. Build partnerships with local employers in order for employers to gain an appreciation of the difficulties students encounter in balancing work commitments with academic requirements. Students and employers alike should understand that education is a necessity and representatives of LWC should discuss with employers the need to support students during their academic experience. LWC's alumni working in surrounding areas should be cultivated to hire students part-time.

Structure of First-Year Experience

10. Dedicate an existing administrator who will be responsible for overseeing the academic and social integration of first-year students. This person will serve as a liaison between advisors, Freshman Seminar instructors, faculty, senior administrators, and the Academic Success Center. Responsibilities of this position will include:
 - a. Make contact with students and families, preferably in the summer prior to fall enrollment.
 - b. Collaborate with the Office of Admissions to view student files to determine potential "at risk" students.
 - c. Meet with freshmen students as a required part of Freshman Seminar to understand how students are adjusting to the college experience. These meetings should take place between the fourth and sixth week of the fall semester. The conversations should focus on student perspectives of the academic and social life at LWC (Brier, Hirschy, & Braxton, 2008).
 - d. Provide feedback to senior administrators, faculty, advisors, and staff at the Academic Success Center regarding student concerns on issues related to student departure.
 - e. Connect students to appropriate campus personnel and resources.
 - f. Promote institutional affiliation through continual discourse with students and families during the academic year.
 - g. Identify student ambassadors who can meet with first-year students, individually or in groups, to assist them with the "separation stage" and enhance opportunities for peer interactions.
11. Expand freshman orientation events into the first 4 weeks of the fall semester to include student workshops addressing effective ways for students to communicate with parents about academic requirements, how students can get involved with campus organizations, the Academic Success Center, and techniques for approaching faculty about understanding course work.
12. Increase the academic rigor of Freshman Seminar. Best practices of first-year experience programs indicate the importance of centering the seminar in the first-year curriculum, providing training and development for instructors, conducting an assessment of the seminar, and disseminating the results among institutional leaders (Hunter & Linder, 2005). First-year seminars of the highest quality involve information literacy, critical thinking, frequent writing and reflection, collaborative learning, exposure to faculty research, and skills that develop a student's intellectual and practical capabilities (Kuh, 2008). The course should meet twice a week and

- students should earn two or three credit hours. Students should be surveyed or participate in focus groups at the end of the semester to evaluate the effectiveness of the course.
13. Ensure that Freshman Seminar is a course in which all first-year students are required to enroll. Freshman Seminar should not be a course that is discarded when students encounter conflicts with their course schedule due to work commitments. The homogeneity of classes should be reduced, allowing for classes to be comprised of a diverse population. Students should be assigned to Freshman Seminar courses based on various characteristics including high school achievement, first-generation status, gender, demographic background, and residential status.
 14. Introduce a formal ceremony to assist freshmen students in the “separation stage” of their transition to college (Tinto, 1988). LWC should explore the possibilities of conducting a convocation ceremony to foster a student’s affiliation with the institution. Commitment of the institution to student welfare and institutional integrity should serve as the foundation for this formal event.

Building Community

15. Enhance faculty interaction with students through mentoring programs and a heightened presence at social events on campus. Faculty visibility and accessibility is an important component to reducing student departure. Faculty should meet with students on an individual basis and within larger groups. A forum could be established that allows faculty to share their experiences and assist students with their intellectual, emotional, and spiritual growth. Informal contact between students and faculty leads to positive academic outcomes for students (Pascarella, 1980).
16. Focus on residence hall activities that build a strong campus community and foster the social integration of students. LWC can use social and academic programming within residence halls to enhance a student’s affiliation with the institution, while connecting students with affinity groups. Resident Assistant (RA) training should be strengthened to enable RA’s to assist in identifying “at risk” students and become more involved with the institution’s commitment to reducing student departure.
17. Create and promote student mentoring opportunities. A student mentoring program will assist with the academic and social integration of first-year students into the campus community. This initiative will allow upperclassmen to invest in the growth and development of freshmen, while fulfilling the role of a peer and role model. Upperclassmen are currently involved with Freshman Seminar courses, but their role should be extended beyond the classroom. Creating a closer connection between upperclassmen and first-year students fosters a positive “culture of enforced success” (Hermanowicz, 2003).
18. Engage students through enriching educational and cultural experiences off campus. Increasing collaboration between academic affairs and student affairs is an important part of a holistic strategy for reducing student departure (Braxton & Mundy, 2001).

Personnel in student affairs are “responsible for establishing the campus conditions that affirm students and for providing programs and services to meet their academic and social needs” (Kuh 2005, p. 164). Partnerships between faculty members and student affairs personnel will invoke programming targeted at enhancing the academic and social values of LWC. A service-learning program such as an Alternative Spring Break incorporates social and academic components that are compelling and beneficial for student growth and development (Eyler & Giles, 1999).

Institutional Leadership

19. Create a reward structure for administrators, staff, and faculty who demonstrate an active concern for student growth and development. Recognizing the efforts of these individuals demonstrates LWC’s commitment to student welfare and will promote a culture devoted to collectively working together to reduce departure. Braxton (2006) has suggested the allocation of these rewards in the form of annual reappointment, salary increases, and promotions.
20. Audit institutional policies and procedures to ensure their continued alignment with the institution’s mission and goals (Braxton, 2006). Policies and procedures that are no longer aligned with “every student, every day” should be discontinued or modified. Institutional leaders, faculty, staff, and administrators should portray a genuine, sincere, and honest commitment to the institution’s mission, goals, and values.
21. Increase resource allocations to instructional expenses. LWC’s instructional expenses are considerably less than those of peer institutions. As instructional expenses are linked to reducing student departure, LWC should allocate resources to improve teaching pedagogies, provide opportunities for faculty development, and enhance the quality of course content. Instructional expenses should be targeted at promoting student persistence through initiatives that will enhance the academic integration of first-year students.

Closing Remarks

The project team’s recommendations have stemmed from an evidence-based analysis designed to assist institutional leaders enhance LWC’s market position and reduce first-year student departure.

The project team has thoroughly enjoyed the opportunity of partnering with Lindsey Wilson College during this capstone project and would like to thank President Luckey and the LWC community for their encouragement and support during the past year.

References

- Advisory Committee on Student Financial Assistance. (2002). *Empty promises: The myth of college access in America*. Retrieved December 2, 2008 from: <http://www.ed.gov/about/bdscomm/list/acsfa>
- America College Testing. (2008). *National collegiate retention and persistence to degree rates*. Retrieved September 16, 2008 from: http://www.act.org/research/policymakers/pdf/retain_2008.pdf
- Art and Science Group, LLC. (2008). *Market intelligence for higher education, independent schools and nonprofits*. Presentation on November 7, 2008 at the College Board National Forum. Retrieved January 4, 2008 from: www.artsci.com/newsroom/Social%20Networking%20Presentation%20110708.pdf
- Association of Independent Kentucky Colleges and Universities. (2000). *A statewide survey of adult Kentuckians regarding the awareness of, preferences toward, and perceptions regarding independent colleges and universities*. Prepared by Horizon Research International, Frankfort.
- Association of Independent Kentucky Colleges & Universities. (2007). *Quick facts about Kentucky's nonprofit independent colleges and universities*. Frankfort: Association of Independent Kentucky Colleges & Universities.
- Astin, A. W. (1972). College dropouts: A national profile. *ACE Research Reports*, 7, Washington, DC: American Council on Education.
- Astin, A. W. (1975). *Preventing students from dropping out*. San Francisco: Jossey-Bass.
- Astin, A. W. (1984). Student involvement: A developmental theory for higher education. *Journal of College Student Personnel*, 25, 297-308.
- Astin, A. W. (1993). *What matters in college? Four critical years revisited*. San Francisco: Jossey-Bass.
- Bean, J. P. (1980). Dropouts and turnover: The synthesis and test of a causal model of student attrition. *Research in Higher Education*, 12, 155-187.
- Bean, J. P. (1983). The application of a model of turnover in work organizations to the student attrition process. *Review of Higher Education*, 6, 129-148.
- Bean, J. P. (2005). Nine themes of college student retention. In A. Seidman (Ed.), *College student retention: Formula for student success* (pp. 215-243). Westport, CT: Praeger.

- Becker, G. S. (1993). *Human capital: A theoretical and empirical analysis with special reference to education* (3rd Ed.). Chicago: University of Chicago Press.
- Berger, J. (2000). Optimizing capital, social reproduction and undergraduate persistence: A sociological perspective. In J. M. Braxton (Ed.), *Reworking the student departure puzzle* (pp. 95-124). Nashville, TN: Vanderbilt University Press.
- Berger, J. B., & Braxton, J. M. (1998). Revising Tinto's interactionist theory of student departure through theory elaboration: Examining the role of organizational attributes in the persistence process. *Research in Higher Education*, 39(2), 103-199.
- Billson, J. M., & Terry, M. B. (1982). In search of the silken purse: Factors in attrition among first generation students. *College and University*, 58(1), 57-75.
- Bourdieu, P. (1977). Cultural reproduction and social reproduction. In J. Karabel & A. H. Halsey (Ed.), *Power and ideology*. New York: Oxford University Press.
- Braxton, J. M. (2000). Introduction: Reworking the student departure puzzle. In J. M. Braxton (Ed.), *Reworking the student departure puzzle* (pp. 1-8). Nashville, TN: Vanderbilt University Press.
- Braxton, J. M. (2006). *Grounded retention strategies: Maximizing the success of your student retention efforts*. Presentation made at the Council of Independent Colleges, Institute for Chief Academic Affairs Officers, St. Petersburg Beach, FL.
- Braxton, J. M., Hirschy, A. S., & McClendon, S. A. (2004). *Understanding and reducing college student departure*, ASHE-ERIC Higher Education Report, 30(3). San Francisco: Wiley Periodicals.
- Braxton, J. M., & Lien, L. A. (2000). The viability of academic integration as a central construct in Tinto's interactionist theory of student departure. In J. M. Braxton (Ed.), *Reworking the student departure puzzle* (pp. 11-28). Nashville, TN: Vanderbilt University Press.
- Braxton, J. M., & Mundy, M. E. (2001). Powerful institutional levers to reduce college student departure. *Journal of College Student Retention*, 3(1), 91-118.
- Braxton, J. M., Sullivan, A. S., & Johnson, R. (1997). Appraising Tinto's theory of college student departure. In J. Smart (Ed.), *Higher Education: Handbook of Theory and Research*, 12, 107-164. New York: Agathon.
- Brier, E. M., Hirschy, A. S., & Braxton, J. M. (2008). The strategic retention initiative: Theory-based practice to reduce college student departure. *About Campus*, 13(1), 18-20.

- Brinkman, P. T., & Teeter, D. J. (1987). Methods for selecting comparison groups. *New Directions for Institutional Research*, 53, 5-23.
- Bui, V. T. K. (2002). First-generation students at a four-year university: Background characteristics, reasons for pursuing higher education, and first-year experiences. *College Student Journal*, 36(1), 3-11.
- Burdman, P. (2005). *The student debt dilemma: Debt aversion as a barrier to college access*. Center for Studies in Higher Education. Research & Occasional Paper Series: CSHE.13.05. Retrieved January 18, 2009 from: <http://repositories.cdlib.org/cshe/CSHE-13-05>
- Burke, J. (2005). The many faces of accountability. In J. C. Burke (Ed.), *Achieving accountability in higher education* (pp. 1-24). San Francisco: Jossey Bass.
- Cavote, S., & Kopera-Frye, K. (2006). Non-traditional student persistence and first year experience courses. *Journal of College Student Retention*, 8(4), 477-489.
- Census Bureau, United States. (2007). American fact finder. Retrieved February 4, 2009 from: http://factfinder.census.gov/home/saff/main.html?_lang=en
- Chase, C. I. (1970). The college dropout: His high-school prologue. *Bulletin of the National Association of Secondary School Principals*, 54, 66-71.
- Chickering, A., & Gamson, Z. (1987). Seven principles for good practice in undergraduate education. *The American Association for Higher Education Bulletin*, 39, 3-7.
- Christie, N., & Dinham, S. (1991). Institutional and external influences on social integration in the freshman year. *Journal of Higher Education*, 62, 412-436.
- Clark, B., & Montgomery, D. (1999). Managerial identification of competitors. *Journal of Marketing*, 63(3), 67-83.
- Cornwell, C., & Mustard, D. B. (2001). Policy notes: HOPE scholarship affects where, not, whether students attend college. *Public Policy Research Series*, 2(10).
- Crissman Ishler, J. L. (2005). Today's first-year students. In M. L. Upcraft, J. N. Gardner, & B.O. Barefoot & Associates (Eds.), *Challenging and supporting the first-year student: A handbook for improving the first year of college* (pp. 15-26). San Francisco: Jossey-Bass.
- Crissman Ishler, J. L., & Upcraft, M. L. (2005). The keys to first-year student persistence. In M. L. Upcraft, J. N. Gardner, & B. O. Barefoot & Associates (Eds.), *Challenging and supporting the first-year student: A handbook for improving the first year of college* (pp. 27-46). San Francisco: Jossey-Bass.

- Dodds, W. B. (1991). In search of value: How price and store name information influence buyers' product perceptions. *Journal of Services Marketing*, 5(3), 27-36.
- Doyle, W. R. (2006). Adoption of merit-based student grant programs: An event history analysis. *Educational Evaluation and Policy Analysis*, 28(3), 259-285.
- Ehrenburg, R. (2006). The perfect storm and the privatization of higher education. *Change*, 38(1), 46-53.
- Elkins, S. A., Braxton, J. M., & James, G. W. (2000). Tinto's separation stage and its influence on first-semester college student persistence. *Research in Higher Education*, 41(2), 251-268.
- Ethington, C. A., & Thomas, S. L. (2002). Back to the basics: Regression as it should be. In J. C. Smart (Ed.), *Higher education: A handbook of theory and research*, Vol. 17. Dordrecht, Netherlands: Kluwer Academic Publishers.
- Eyler, J., & Giles, D. (1999). *Where's the learning in service-learning?* Indianapolis: Jossey-Bass.
- Fairhurst, G. T., Jordan, J. M., & Neuwirth, K. (1997). Why are we here? Managing the meaning of an organizational mission. *Journal of Applied Communication Research*, 25, 243-263.
- Flinspach, S., Banks, K., & Khanna, R. (2003) *Socioeconomic integration as a tool for diversifying schools: Promise and practice in two large school systems*. Cambridge: Harvard University Civil Rights Project.
- Godwin, G. J., & Markham, W. T. (1996). First encounters of the bureaucratic kind: Early freshman experiences with a campus bureaucracy. *Journal of Higher Education*, 67(6), 660-691.
- Hardwick-Day. (2005). *Lindsey Wilson College: 2005 Financial aid optimization analysis*. Prepared for Lindsey Wilson College.
- Hartley, M., & Morphew, C. C. (2008). What's being sold and to what end? A content analysis of college viewbooks. *Journal of Higher Education*, 79(6), 671-691.
- Heller, D. E. (2006). *Merit aid and college access*. Symposium on the consequences of merit-based student aid conducted at the Wisconsin Center for the Advancement of Postsecondary Education, University of Wisconsin, Madison. Retrieved December 13, 2008 from: <http://www.wiscapc.wisc.edu/publications/attachments/cf018Heller.pdf>

- Hermanowicz, J. C. (2003). *College attrition at American research universities: Comparative case studies*. New York: Agathon Press.
- Hirschy, A. (2004). *Antecedents to social integration: Organizational influences on college student persistence*. Association for the Study of Higher Education, Annual Meeting, Kansas City, MO.
- Hossler, D., Schmit, J., & Vesper, N. (1999). *Going to college: How social, economic and educational factors influence the decisions students make*. Maryland: Johns Hopkins University Press.
- Hotchkiss, J. L., Moore, R. E., & Pitts, M. M. (2006). Freshman learning communities, college performance, and retention. *Education Economics*, 14(2), 197-210.
- Houben, G., Lenie, K., & Vanhoof, K. (1999). A knowledge-based SWOT-analysis system as an instrument for strategic planning in small and medium sized enterprises. *Decision Support Systems*, 26(2), 125-135.
- Hunter, M. S., & Linder, C. W. (2005). First-year seminars. In M. L. Upcraft, J. N. Gardner, & B.O. Barefoot & Associates (Eds.), *Challenging and supporting the first-year student: A handbook for improving the first year of college* (pp. 275-291). San Francisco: Jossey-Bass.
- Integrated Postsecondary Education Data System. (2006-2007). *Dataset cutting tool*. Retrieved November 26, 2008 from: <http://nces.ed.gov/ipeds/pas/>
- Integrated Postsecondary Education Data System. (2008). Variable definitions available on the website. Retrieved November 26, 2008 from: <http://nces.ed.gov/IPEDS/>
- Ishitani, T. (2006). Studying attrition and degree completion behavior among first-generation college students in the United States. *The Journal of Higher Education*, 77(5), 861-885.
- Ivy, J. (2001). Higher education institution image: A correspondence analysis approach. *International Journal of Educational Management*, 15(6), 276-282.
- JBHE Foundation. (1996). Blacks travel further to attend college than all other ethnic groups. *Journal of Blacks in Higher Education*, 14, 48.
- Keller, G. (1983). *Academic strategy: The management revolution in American higher education*. Washington, DC: The Johns Hopkins University Press.
- Keller, G. (1997). Examining what works in strategic planning. In M. W. Peterson, D. D. Dill, & L. A. Mets (Eds.), *Planning and management for a changing environment: A handbook on redesigning postsecondary institutions* (pp. 158-169). San Francisco: Jossey-Bass.

- Kentucky Council on Postsecondary Education. (2006). *Kentucky postsecondary education 2006 county profiles*. Retrieved November 27, 2008 from: <http://cpe.ky.gov/info/county/default.htm>
- Kentucky Council on Postsecondary Education. (2008). *Kentucky postsecondary education 2008-10 county profiles*. Retrieved November 27, 2008 from: <http://cpe.ky.gov/info/county/default.htm>
- Kotler, P. (2005). *According to Kotler: The world's foremost authority on marketing answers your questions*. New York: AMACOM.
- Kotler, P., & Fox, K. F.A. (1995). *Strategic marketing for educational institutions* (2nd Ed.). New Jersey: Prentice-Hall.
- Kotler, P., & Murphy, P. E. (1981). Strategic planning for higher education. *Journal of Higher Education*, 52(5), 470-489.
- Kreysa, P. G. (2006). The impact of remediation on persistence of under-prepared college students. *Journal of College Student Retention*, 8(2), 251-270.
- Kuh, G. D. (2001). Organizational culture and student persistence: Prospects and puzzles. *Journal of College Student Retention*, 3(1), 23-39.
- Kuh, G. D. (2005). Student engagement in the first year of college. In M. L. Upcraft, J. N. Gardner, & B. O. Barefoot & Associates (Eds.), *Challenging and supporting the first-year student: A handbook for improving the first year of college* (pp. 86-107). San Francisco: Jossey-Bass.
- Kuh, G. D., Kinzie, J., Schuh, J. H., Whitt, E. J., & Associates. (2005). *Student success in college: Creating conditions that matter*. San Francisco: Jossey-Bass.
- Kuh, G. D. (2008). *High-impact educational practices: What they are, who has access to them, and why they matter*. Washington, DC: Association of American Colleges and Universities.
- Lapovsky, L. (1999). What you need to know about enrollment management. *New Directions for Higher Education*, 107, 5-15.
- Lohfink, M. M., & Paulsen, M. B. (2005). Comparing the determinants of persistence for first-generation and continuing-generation students. *Journal of College Student Retention*, 46(4), 409-428.
- London, H. B. (1989). Breaking away: A study of first-generation college students and their families. *American Journal of Education*, 97(2), 144-170.

- Long, B. (2004). How do financial aid policies affect colleges? The institutional impact of the Georgia HOPE scholarship. *Journal of Human Resources*, 39(4), 1045-1066.
- Longwell-Grice, R., & Longwell-Grice, H. (2008). Testing Tinto: How do retention theories work for first-generation, working-class students? *Journal of College Student Retention*, 9(4), 407-420.
- Martínez Alemán, A. M. (2009). Online social networking on campus. *Inside Higher Ed*. Retrieved January 12, 2009 from: <http://www.insidehighered.com/news/2009/01/08/network>
- McCarron, G. P., & Inkelas, K. K. (2006). The gap between educational aspirations for first-generation college students and the role of parental involvement. *Journal of College Student Development*, 47(5), 534-549.
- McHale, T. (2003). Using the web to reach teens. *iMedia Connection*. Retrieved January 2, 2009 from: <https://www.imediaconnection.com/content/1994.asp>
- McPherson, M. S., & Schapiro, M. O. (1997). Financing undergraduate education: Designing national policies. *National Tax Journal*, 50(3), 557-571.
- Minter, J. (1978). The financial assessment of colleges and universities an its implication for state policy. In William D. Hyde Jr. (Ed.), *Issues in postsecondary education finance summaries of six issues* (Report no. F78-2). Denver, CO: Education Commission of the States.
- National Association of Student Financial Aid Administrators. (2008). *P-08-01: 2008-09 Pell grant payment and disbursement schedules*. Retrieved December 21, 2008 from: <http://www.nasfaa.org/publications/2008/p0801.html>
- National Center for Education Statistics. (2007). Data on national retention rates. Retrieved November 14, 2008 from: <http://nces.ed.gov>
- National Center for Education Statistics. (2008a). *Digest of Education Statistics, 2007* (NCES 2008-022), Chapter 2. Retrieved November 29, 2008 from: <http://nces.ed.gov/fastfacts/display.asp?id=84>
- National Center for Education Statistics (2008b). Distance Education at Degree-Granting Postsecondary Institutions: 2006–07. Retrieved November 14, 2008 from: <http://nces.ed.gov/pubs2009/2009044.pdf>.
- National Center for Education Statistics. (2008c). What are the most popular majors for college students? *Digest of Education Statistics, 2007* (NCES 2008-022), Chapter 3. Retrieved October 5, 2008 from: <http://nces.ed.gov/fastfacts/display.asp?id=37>

- National Center for Public Policy and Higher Education. (2008). *Measuring up 2008: The national report card on higher education*. Retrieved December 22, 2008 from: <http://measuringup2008.highereducation.org/>
- National Survey of Student Engagement (2007). *Institutional report submitted to Lindsey Wilson College*. Indiana University Center for Postsecondary Research. Obtained through LWC Office of Institutional Research, September 15, 2008.
- Newman, F. & Courtier, L. (2001). The new competitive arena: market forces invade the academy. *The future project: Policy for higher education in a changing world*. Providence, RI: Brown University
- Noble, K., Flynn, N. T., Lee, J. D., & Hilton, D. (2007). Predicting successful college experiences: Evidence from a freshman retention program. *Journal of College Student Retention: Research, Theory & Practice*, 9, 39-60.
- Parsad, B., & Lewis, L. (2008). *Distance education at degree-granting postsecondary institutions: 2006–07* (NCES 2009–044). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. Retrieved November 20, 2008 from: <http://nces.ed.gov/pubs2009/2009044.pdf>
- Pascarella, E. T. (1980). Student-faculty informal contact and college outcomes. *Review of Educational Research*, 50(4), 545-595.
- Pascarella, E. T., & Terenzini, P. T. (1983). Predicting voluntary freshman year persistence/withdrawal behavior in a residential university: A path analytical validation of Tinto's model. *Journal of Educational Psychology*, 75(2), 215-226.
- Pascarella, E. T., & Terenzini, P. T. (1991). *How college affects students: Findings and insights from twenty years of research*. San Francisco: Jossey-Bass.
- Pascarella, E.T., Pierson, C. T., Wolniak, G. C., & Terenzini, P. T. (2004). First-generation college students: Additional evidence on college experiences and outcomes. *Journal of Higher Education*, 75(3), 249-284.
- Patton, M. Q. (2002). *Qualitative research & evaluation methods*. Thousand Oaks, CA: Sage.
- Perna, L. (2006). Studying college access and choice: A proposed conceptual model. In J. C. Smart (Ed.), *Higher education: Handbook of theory and research XXI*, 99-157. Netherlands: Springer.
- Peseau, B., & Tudor, R. (1988). Exploring and testing cluster analysis. *Research in Higher Education*, 29(1), 60-78.

- Pike, G. R., & Kuh, G. D. (2005). First- and second-generation college students: A comparison of their engagement and intellectual development. *Journal of Higher Education, 76*(3), 276-300.
- Porter, M. (1980). *Competitive strategy: Techniques for analyzing industries and competitors*. New York: The Free Press.
- Ryan, J. F. (2004). The relationship between institutional expenditures and degree attainment at baccalaureate colleges. *Research in Higher Education, 45*(2), 97-114.
- Sevier, R. A. (2003). *An integrated marketing workbook for colleges and universities: A step-by-step planning guide*. Hiawatha, IA: Strategy Publishing.
- Sewell, W., & Shah, V. (1967). Socioeconomic status, intelligence, and the attainment of higher education. *Sociology of Education, 40*, 1-23.
- Somers, P., Woodhouse, S., & Cofer, J. (2000). Pushing the boulder uphill: The persistence of first-generation college students. *NASPA Journal, 41*(3), 418-435.
- St. John, E. P. (1991). A framework for reexamining state resource-management strategies in higher education. *Journal of Higher Education, 62*, 263-287.
- St. John, E. P. (1994). Assessing tuition and student aid strategies: Using price-response measures to stimulate pricing alternatives. *Research in Higher Education, 35*(3), 301-334.
- Stampen, J. O. (1980). *The financing of public higher education: Low tuition, student aid, and the federal government*. Washington, DC: American Association for Higher Education.
- Steinberg, M. P., Piraino, P., & Haverman, R. (2009). Access to higher education: Exploring the variation in Pell grant prevalence among U.S. colleges and universities. *Review of Higher Education, 32*(2), 235-270.
- Stevenson, J. M., Buchanan, D. A., & Sharpe, A. (2006). Commentary: The pivotal role of the faculty in propelling student persistence and progress toward degree completion. *Journal of College Student Retention, 8*(2), 141-148.
- Terenzini, P. T., Hartmark, L., Lorang, W., & Shirley, R. (1980). A conceptual and methodological approach to the identification of peers institutions. *Research in Higher Education, 12*(4), 347-364.
- Terenzini, P. T., Rendon, L. I., Upcraft, M. L., Millar, S. B., Allison, K. W., Gregg, P. L., & Jalomo, R. (1993). The transition to college: Diverse students, diverse stories. *Research in Higher Education, 35*(1), 57-73.

- Terenzini, P., Springer, L., Yaeger, P., Pascarella, E., & Nora, A. (1996). First-generation college students: Characteristics, experiences, and cognitive development. *Research in Higher Education, 37*(1), 1-22.
- Tierney, W. G. (2000). Power, identity, and the dilemma of college student departure. In J. M. Braxton (Ed.), *Reworking the student departure puzzle* (pp. 213-234). Nashville, TN: Vanderbilt University Press.
- Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. *Review of Educational Research, 45*(1), 89-125.
- Tinto, V. (1987). *Leaving college: Rethinking the causes and cures of student attrition*. Chicago: University of Chicago Press.
- Tinto, V. (1988). Stages of student departure: Reflections on the longitudinal character of student leaving. *Journal of Higher Education, 59*(4), 439-455.
- Tinto, V. (1997). Colleges as communities: Exploring the educational character of student persistence. *Journal of Higher Education, 68*(6), 599-623.
- Toma, J. D., & Cross, M. E. (1999). Intercollegiate athletics and student college choice: Exploring the impact of championship seasons on undergraduate admissions. *Research in Higher Education, 39*(6), 633-661.
- Tower, J. (2005). Navigating toward e-recruitment: Ten revelations about interacting with college-bound high school students. In E-Expectations Survey 2006, sponsored by The National Research Center for College and University Admissions and Noel-Levitz. Retrieved January 4, 2009 from: https://www.noellevitz.com/NR/rdonlyres/B161BA60-E3C9-425C-9964-B1026D68AC3/0/EEXPECTATIONS_paper_0705.pdf
- Upcraft, M. L., Gardner, J. N., Barefoot, B. O., & Associates. (2005). *Challenging and supporting the first-year student: A handbook for improving the first year of college*. San Francisco: Jossey-Bass.
- Van Gennep, A. (1961). *The rites of passage*. Chicago: University of Chicago Press.
- Walsh, T. A. (2000). *Identifying peer institutions for graduation rate comparisons*. Presentation at AIR 2000 Annual Forum Paper. Cincinnati, OH, May 21-23.
- Wilkinson, R. (2005). *Aiding students, buying student: Financial aid in America*. Nashville, TN: Vanderbilt University Press.

- Wirt, J., Choy, S., Rooney, P., Provasnik, S., Sen, A., & Tobin, R. (2004). *The condition of education 2004* (NCES 2004-077). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.
- Wyman, F. (1997). A predictive model of retention rate at regional two-year colleges. *Community College Review*, 25, 29-58.
- Zhang, L. (2006). *Cluster Analysis*. Presentation given at the University of Minnesota. Course title: Institutional Research in Post-Secondary Education, Spring 2006.
- Zhao, J., & Dean, D. C. (1997). *Selecting peer institutions: A hybrid approach*. Paper presented at the Annual Forum of the Association for Institutional Research, Orlando, FL. (ERIC Document Reproduction Service No. ED 410877)

Appendix A: Student Tracker Data

	College Name	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	ASBURY COLLEGE	15	2.7	2.7	2.7
	AUBURN UNIVERSITY	1	.2	.2	2.9
	AURORA UNIVERSITY	1	.2	.2	3.1
	AUSTIN PEAY STATE UNIVERSITY MAIN CAMPUS	3	.5	.5	3.7
	BELLARMINE UNIVERSITY	3	.5	.5	4.2
	BIG SANDY COMMUNITY AND TECHNICAL COLLEGE	2	.4	.4	4.6
	BLUEGRASS COMMUNITY AND TECHNICAL COLLEGE	16	2.9	2.9	7.5
	BLUFFTON UNIVERSITY - UNDERGRAD SEMESTERS	1	.2	.2	7.7
	BOWLING GREEN TECHNICAL COLLEGE(KCTCS)	2	.4	.4	8.0
	BUTLER UNIVERSITY	1	.2	.2	8.2
	CALIFORNIA STATE UNIVERSITY - LONG BEACH	1	.2	.2	8.4
	CAMPBELLSVILLE UNIVERSITY	39	7.1	7.1	15.5
	CENTRAL MICHIGAN UNIVERSITY	1	.2	.2	15.7
	CENTRE COLLEGE	7	1.3	1.3	17.0
	CLARION UNIVERSITY OF PENNSYLVANIA	1	.2	.2	17.2
	COASTAL CAROLINA COMMUNITY COLLEGE	1	.2	.2	17.4
	COLLEGE OF MOUNT ST JOSEPH	1	.2	.2	17.6
	COLLEGE OF WOOSTER	1	.2	.2	17.7
	COLORADO STATE UNIVERSITY	1	.2	.2	17.9
	COLUMBIA STATE COMMUNITY COLLEGE	1	.2	.2	18.1
CUMBERLAND UNIVERSITY	1	.2	.2	18.3	
DELTA STATE UNIVERSITY	1	.2	.2	18.5	

DICKINSON STATE UNIVERSITY	1	.2	.2	18.6
EASTERN IOWA COMM COLLEGE AT CLINTON	1	.2	.2	18.8
EASTERN KENTUCKY UNIVERSITY	25	4.6	4.6	23.4
ELIZABETHTOWN COMMUNITY CG (KCTCS)	17	3.1	3.1	26.5
FLAGLER COLLEGE	1	.2	.2	26.7
FLORIDA COMMUNITY COLLEGE AT JACKSONVILLE	2	.4	.4	27.1
FLORIDA INTERNATIONAL UNIVERSITY	2	.4	.4	27.4
FRANCISCAN UNIVERSITY OF STEUBENVILLE	1	.2	.2	27.6
GEORGETOWN COLLEGE	11	2.0	2.0	29.6
GLEN OAKS COMMUNITY COLLEGE	1	.2	.2	29.8
GLENVILLE STATE COLLEGE	1	.2	.2	30.0
GRAND RAPIDS COMMUNITY COLLEGE	1	.2	.2	30.2
GRAND VALLEY STATE UNIVERSITY	1	.2	.2	30.3
HANOVER COLLEGE	4	.7	.7	31.1
HAYWOOD COMMUNITY COLLEGE	1	.2	.2	31.3
HAZARD COMMUNITY COLLEGE (KCTCS)	2	.4	.4	31.6
HENDRIX COLLEGE	1	.2	.2	31.8
HOPKINSVILLE COMMUNITY COLLEGE (KCTCS)	3	.5	.5	32.4
ILLINOIS EASTERN C.C. – WABASH VALLEY	1	.2	.2	32.5
INDIANA STATE UNIVERSITY	1	.2	.2	32.7
INDIANA UNIVERSITY SOUTHEAST	2	.4	.4	33.1
JEFFERSON COMMUNITY AND TECHNICAL COLLEGE	11	2.0	2.0	35.1
JOHNSON C. SMITH UNIVERSITY	1	.2	.2	35.3
KENTUCKY STATE UNIVERSITY	1	.2	.2	35.5
LANDMARK COLLEGE	1	.2	.2	35.6

MADISONVILLE COMMUNITY COLLEGE (KCTCS)	4	.7	.7	36.4
MERCER UNIVERSITY MACON	2	.4	.4	36.7
MIAMI UNIVERSITY	1	.2	.2	36.9
MIDWAY COLLEGE	6	1.1	1.1	38.0
MOREHEAD STATE UNIVERSITY	10	1.8	1.8	39.9
MORRIS COLLEGE	1	.2	.2	40.0
MOTLOW STATE COMMUNITY COLLEGE	1	.2	.2	40.2
MURRAY STATE UNIVERSITY	11	2.0	2.0	42.2
MUSKINGUM COLLEGE	1	.2	.2	42.4
NATIONAL COLLEGE OF BUSINESS & TECHNOLOGY DANVILLE	1	.2	.2	42.6
NORTH GREENVILLE UNIVERSITY	1	.2	.2	42.8
NORTHEAST MISSISSIPPI COMMUNITY COLLEGE	1	.2	.2	43.0
NORTHERN KENTUCKY UNIVERSITY	2	.4	.4	43.3
NORTHERN VIRGINIA COMMUNITY COLLEGE	1	.2	.2	43.5
NORTHWEST CHRISTIAN COLLEGE - TRADITIONAL	1	.2	.2	43.7
OHIO DOMINICAN UNIVERSITY	1	.2	.2	43.9
OHIO UNIVERSITY	1	.2	.2	44.1
OKLAHOMA CITY COMMUNITY COLLEGE	1	.2	.2	44.2
OLIVET NAZARENE UNIVERSITY UG	1	.2	.2	44.4
OTTAWA UNIVERSITY - OTTAWA	1	.2	.2	44.6
OWENSBORO COMMUNITY COLLEGE (KCTCS)	3	.5	.5	45.2
PIKEVILLE COLLEGE	2	.4	.4	45.5
PURDUE UNIVERSITY - WEST LAFAYETTE	1	.2	.2	45.7
SAN JACINTO COLLEGE	1	.2	.2	45.9
SHAWNEE COMMUNITY COLLEGE	1	.2	.2	46.1

SHAWNEE STATE UNIVERSITY	2	.4	.4	46.4
SHEPHERD UNIVERSITY	1	.2	.2	46.6
SINCLAIR COMMUNITY COLLEGE	2	.4	.4	47.0
SOMERSET COMMUNITY COLLEGE (KCTCS)	51	9.3	9.3	56.3
SOUTHEAST COMMUNITY COLLEGE (KCTCS)	1	.2	.2	56.5
SOUTHEASTERN ILLINOIS COLLEGE	1	.2	.2	56.7
SOUTHERN ARKANSAS UNIVERSITY	1	.2	.2	56.9
SPALDING UNIVERSITY	5	.9	.9	57.8
SPENCERIAN COLLEGE	1	.2	.2	58.0
ST CATHARINE COLLEGE	11	2.0	2.0	60.0
ST MARY OF THE WOODS COLLEGE	1	.2	.2	60.1
TENNESSEE TECHNOLOGICAL UNIVERSITY	1	.2	.2	60.3
THOMAS MORE COLLEGE	6	1.1	1.1	61.4
TIDEWATER COMMUNITY COLLEGE	1	.2	.2	61.6
TRANSYLVANIA UNIVERSITY	4	.7	.7	62.3
TROY UNIVERSITY	1	.2	.2	62.5
TULSA COMMUNITY COLLEGE	1	.2	.2	62.7
UNION COLLEGE	11	2.0	2.0	64.7
UNIVERSITY OF COLORADO AT BOULDER	1	.2	.2	64.9
UNIVERSITY OF KANSAS	1	.2	.2	65.1
UNIVERSITY OF KENTUCKY	33	6.0	6.0	71.1
UNIVERSITY OF LOUISVILLE	24	4.4	4.4	75.5
UNIVERSITY OF MISSISSIPPI	1	.2	.2	75.7
UNIVERSITY OF NORTH CAROLINA, ASHEVILLE	1	.2	.2	75.9
UNIVERSITY OF PHOENIX	2	.4	.4	76.2

UNIVERSITY OF SOUTH ALABAMA	1	.2	.2	76.4
UNIVERSITY OF SOUTHERN INDIANA	1	.2	.2	76.6
UNIVERSITY OF SOUTHERN MISSISSIPPI - HATTIESBURG	1	.2	.2	76.8
UNIVERSITY OF TENNESSEE CHATTANOOGA	1	.2	.2	77.0
UNIVERSITY OF THE CUMBERLANDS	13	2.4	2.4	79.3
UNIVERSITY OF VA'S COLLEGE AT WISE	1	.2	.2	79.5
VINCENNES UNIVERSITY	1	.2	.2	79.7
VIRGINIA WESLEYAN COLLEGE	1	.2	.2	79.9
VOLUNTEER STATE COMMUNITY COLLEGE	3	.5	.5	80.4
WESTERN KENTUCKY UNIVERSITY	106	19.4	19.4	99.8
WRIGHT STATE UNIVERSITY	1	.2	.2	100.0
Total 108	547	100.0	100.0	100.0

Appendix B: ASQ and ESQ Survey Items for Student Perceptions of the Marketing Mix

Item number	Variable code	Description/Definition	Response Values
0	timestamp	Date and time the survey was completed by the respondent	<i>Automatic</i> (ex: 10-Dec-2008; 23:14)
1	gender	Gender of the respondent	1 = male 2 = female
2	address	City and state of current home residence	Open
3	country	Country of home residence	Open
4	ethnicity	Racial/ethnic identity of respondent	1 = African American 2 = American Indian or Alaskan native 3 = Asian or Pacific Islander 4 = Hispanic/Latino/Puerto Rican 5 = Mexican or Mexican American 6 = Multi-racial 7 = White, non-Hispanic 8 = Other
5	apply	Including Lindsey Wilson College, to how many schools did you apply?	1 = 1 2 = 2 3 = 3 4 = more than 3
6	admitted	Including Lindsey Wilson College, to how many schools were you admitted?	1 = 1 2 = 2 3 = 3 4 = more than 3 (recoded)
7	stchoice	Please list your top three college choices to which you were admitted: 1 st choice	Open
8	ndchoice	Please list your top three college choices to which you were admitted: 2 nd choice	Open
9	rdchoice	Please list your top three college choices to which you were admitted: 3 rd choice	Open
10	attend	Are you attending a college or university this coming academic year?	0 = No 1 = Yes

11	schattend	Name of school in which you are currently attending	Open
12	reasons	For what reason(s) did you choose to attend this college?	Open for ASQ respondents, coded by response
Using the scale below, please rate Lindsey Wilson College in the following categories.			
13	acreputation	Academic reputation	C/R = Cannot Rate 1 = Poor 2 = Marginal 3 = Good 4 = Very Good
14	specacadprm	Availability of special academic programs	C/R = Cannot Rate 1 = Poor 2 = Marginal 3 = Good 4 = Very Good
15	honorsfac	Independent study, honors program, research, faculty interaction, etc.	C/R = Cannot Rate 1 = Poor 2 = Marginal 3 = Good 4 = Very Good
16	acadfacil	Quality of academic facilities (library, laboratories, etc.)	C/R = Cannot Rate 1 = Poor 2 = Marginal 3 = Good 4 = Very Good
17	recfacil	Availability of recreational facilities on and off campus	C/R = Cannot Rate 1 = Poor 2 = Marginal 3 = Good 4 = Very Good
18	surround	Surrounding area (neighborhood, town, or city)	C/R = Cannot Rate 1 = Poor 2 = Marginal 3 = Good 4 = Very Good
19	attractiv	Quality of campus physical environment (residence halls, campus surroundings)	C/R = Cannot Rate 1 = Poor 2 = Marginal 3 = Good 4 = Very Good
20	qualitysocial	Quality of social life	C/R = Cannot Rate 1 = Poor 2 = Marginal 3 = Good 4 = Very Good

21	extacurric	Opportunities to participate in extra-curricular activities	C/R = Cannot Rate 1 = Poor 2 = Marginal 3 = Good 4 = Very Good
22	scholavailable	Availability of scholarships based on merit, not financial need	C/R = Cannot Rate 1 = Poor 2 = Marginal 3 = Good 4 = Very Good
23	prepcareer	Guidance regarding a career following graduation	C/R = Cannot Rate 1 = Poor 2 = Marginal 3 = Good 4 = Very Good
What were your sources of information about Lindsey Wilson College? Please rate each area in terms of how effective the information was to you during your college choice process.			
24	visitsadm	Visits by admission staff to your area	C/R = Cannot Rate 1 = Poor 2 = Marginal 3 = Good 4 = Very Good
25	publications	College publications (catalogs, brochures, etc.)	C/R = Cannot Rate 1 = Poor 2 = Marginal 3 = Good 4 = Very Good
26	website	College website/virtual tour	C/R = Cannot Rate 1 = Poor 2 = Marginal 3 = Good 4 = Very Good
27	communfinaid	Communications about financial aid (other than the final financial aid notification)	C/R = Cannot Rate 1 = Poor 2 = Marginal 3 = Good 4 = Very Good
28	electroncomm	Electronic communication with the college (email, chatrooms, etc.)	C/R = Cannot Rate 1 = Poor 2 = Marginal 3 = Good 4 = Very Good
29	campusvisit	Campus visit (Info Session/Tour/Overnight)	C/R = Cannot Rate 1 = Poor 2 = Marginal 3 = Good 4 = Very Good

30	interview	On-campus admission interview	C/R = Cannot Rate 1 = Poor 2 = Marginal 3 = Good 4 = Very Good
31	contactfac	Contact with faculty from the college	C/R = Cannot Rate 1 = Poor 2 = Marginal 3 = Good 4 = Very Good
32	contactcoach	Contact with coaches	C/R = Cannot Rate 1 = Poor 2 = Marginal 3 = Good 4 = Very Good
33	contactalum	Contact with alumni of the college	C/R = Cannot Rate 1 = Poor 2 = Marginal 3 = Good 4 = Very Good
34	contactstudents	Contact with students who attend the college	C/R = Cannot Rate 1 = Poor 2 = Marginal 3 = Good 4 = Very Good
35	contactafter	Contact with the college after you were admitted	C/R = Cannot Rate 1 = Poor 2 = Marginal 3 = Good 4 = Very Good
Please provide the following information about college costs and financial aid during your college search.			
36	aidfactors	Was financial aid, merit scholarships, or the cost of attending a significant factor in your decision?	1 = Yes 2 = No
37	needbased	Did you apply for need-based financial aid at Lindsey Wilson?	1 = Yes 2 = No
38	needbasedother	Did you apply for need-based financial aid at the other institutions?	1 = Yes 2 = No
39	needoffer	Were you offered need-based financial aid at Lindsey Wilson?	1 = Yes 2 = No
40	needofferother	Were you offered need-based financial aid at other institutions?	1 = Yes 2 = No
41	meritapply	Did you apply for a merit-based scholarship at Lindsey Wilson?	1 = Yes 2 = No

42	meritapplyother	Did you apply for a merit-based scholarship at other institutions?	1 = Yes 2 = No
43	meritoffer	Were you offered a merit-based scholarship at Lindsey Wilson?	1 = Yes 2 = No
44	meritofferother	Were you offered a merit-based scholarship at other institutions?	1 = Yes 2 = No
45	grants	Did your financial aid package include grants or scholarships?	1 = Yes 2 = No
46	loans	Did your financial aid package include one or more student loans?	1 = Yes 2 = No
47	workstudy	Did your financial aid package include work-study?	1 = Yes 2 = No
48	fatherattain	Father's level of educational attainment	1 = Grammar school 2 = Some high school 3 = High school graduate 4 = postsecondary school other than college 5 = some college 6 = Four year college graduate 7 = some graduate school 8 = graduate degree 9 = Not sure
49	mothersattain	Mother's level of educational attainment	1 = Grammar school 2 = Some high school 3 = High school graduate 4 = postsecondary school other than college 5 = some college 6 = Four year college graduate 7 = some graduate school 8 = graduate degree 9 = Not sure
50	friendsattending	What percent of your friends are attending college this year?	1 = 0-20% 2 = 21-40% 3 = 41-60% 4 = 61-80% 5 = 81-100%

Appendix C: Qualitative Student Interview Protocol

Student Name: _____ **Interviewer:** _____

Basic College Characteristics:

- Commuter or residential student?
- Specific programs, scholarships or sports involvement?
- Expected major? Expected graduation?
- How many courses are you taking this semester? Next?
- Do you work while in school? If so, where? How many hours per week?

Cultural Capital

- Where is your hometown? How would you describe it in terms of what people do for a living, regular activities, shared values and other aspects?
- Tell me about your family. What do your parents or guardians do for a living? What is their educational background? (FG status)
- What types of activities did you participate in outside of school with peers and/or family?
- When you were in high school, what did you think college was going to be like? Where did these ideas come from?
- How often did you and your friends discuss college? School choice? Financial aid/costs of college?
- How often did your family discuss going to college? College costs? What are your siblings doing now? (if applicable)
- When you were in High School, did you think your parents could afford to send you to college?
- What were your parent's perceptions of you going off to college? Where did they want you to go?

High School Achievement/ preparation

- To what extent do you think your high school prepared you to succeed academically at LWC?
- How many times did you take the ACT/SAT? How did you prepare?
- Were you encouraged to participate in any type of summer preparatory programs? If so, did you attend and what benefits did you gain?

Choosing College

- What is your main reason for attending college? Why is college important?
- In what ways did you use the LWC website, Facebook, MySpace, or Target X to find out more about the college? In what ways can these be better utilized to attract students?
- What other schools did you consider attending besides LWC? Why did you consider attending these? (Plan B, C, D)

- What are the reasons you chose to attend Lindsey Wilson College? What people influenced you the most in your decision? What arguments were the most convincing? Would you make the choice again?

Student Expectations of College

- How much did you know about the social environment at LWC before you got here?
- How much knowledge did you have about Lindsey Wilson's academic programs?
- How would you compare your pre-entry or early expectations of LWC to what you actually experienced overall? What surprises (good or bad) have you found?
- Would you recommend Lindsey Wilson College to your friends? What types of friends?

Financial Aid

- How did financial aid influence your decision to attend college? How will it influence your decision to remain in college?
- Who completed your financial aid paperwork?
- What are your views with regards to taking on loan debt to pay for college?

First-Year Program/ Academic Success Center

- What is the value to you of the FYE course in terms of the rest of your college career? What connections and relationships have you been able to develop with other students through this course? With faculty?
- To what degree do you believe the FYE course to be challenging and helpful to you as a freshman? What have been the most and least helpful parts of the course?
- Have you been able to utilize the Academic Success Center on campus? What services do they provide?

Anticipatory Socialization

- How would you describe your transition to college during your first year?
- What has been the most difficult part of your adjustment?
- What advice would you give other first-generation college students preparing to attend college?
- How conscious are you about being the first in your family to attend college?
- What are some specific things that made your transition more or less successful?

Biculturalism

- Are there any values or practices that you see on campus, which you don't agree with? What kinds of things?
- In what ways do you see an overlap between your values and the values embraced on campus?
- Do you perceive that you may need to leave behind your "old ways" in order to succeed socially and/or academically at Lindsey Wilson College?

Tinto Model: Social Integration (6 influences)

1. Commitment of the institution to student welfare

- What is your perception of the way LWC communicates and demonstrates a high value and respect for student development and growth?
- From your perspective, do institutional policies and procedures ensure the equal treatment of all students?

2. Communal potential

- How easy (or difficult) has it been for you to find others that share your values, beliefs, and goals? In what ways does the institution aid in this?
- How do you balance your new environment on campus with life amongst your peers and family back home?

3. Institutional integrity

- In what ways do you see the college's mission "Every Student, Every day" being carried out?
- To what degree does the admissions perspective of the college reflect the actual experience of being a student?

4. Proactive Social Adjustment

- How would you describe your adjustment from high school to the culture of LWC?
- What extracurricular activities are you involved in on campus? How did you become involved?

5. Psychosocial engagement

- What opportunities are there to become involved socially on campus? How much energy and effort have you put into this? What are the barriers?

6. Ability to Pay

- Are you worried about your family's ability to pay tuition? Why or why not?

Academic Integration

1. Student entry characteristics:

- How many times have you missed class this year? What were the reasons you missed class?
- What motivates you to stay enrolled at LWC?
- When you face a difficult situation or challenge, how do you try to balance your circumstances with your own personal aspirations?
- How difficult do you believe it is to succeed academically at LWC?
- What are the challenges and difficulties that your friends face at LWC?
- How much school spirit would you say there is at LWC? Do you think you will be well connected to the school after you graduate?

2. External environment

- How much support and encouragement from your family and friends (or significant others) back home have you received while at LWC?

3. Campus environment

- Describe what you do on a typical day when you have classes? When do you study? How often do you study?
- Describe your interactions with your advisor. Were they helpful? Is this a person you could go to for advice?
- How have your interactions been with faculty outside of class? How often do you get to see faculty?
- How confident are you at being able to navigate the LWC system when you have to perform tasks like registering for classes?

4. Faculty

- If you are having problems in a class, how comfortable do you feel approaching faculty for help?
- In what ways have faculty encouraged you to participate in college-related activities outside of class?
- How big of a role does getting to know and interact with faculty have on your success at Lindsey Wilson College?

5. Academic Communities

- How often do you interact with other students during your classes?
- How often do your professors engage you in activities such as debates, role-playing, discussion, and pair and group work?

Suggestions/Recommendations

- How can LWC improve their services and opportunities for students socially and academically?
- What new programs or services would you recommend to help students get the most out of their college experience?

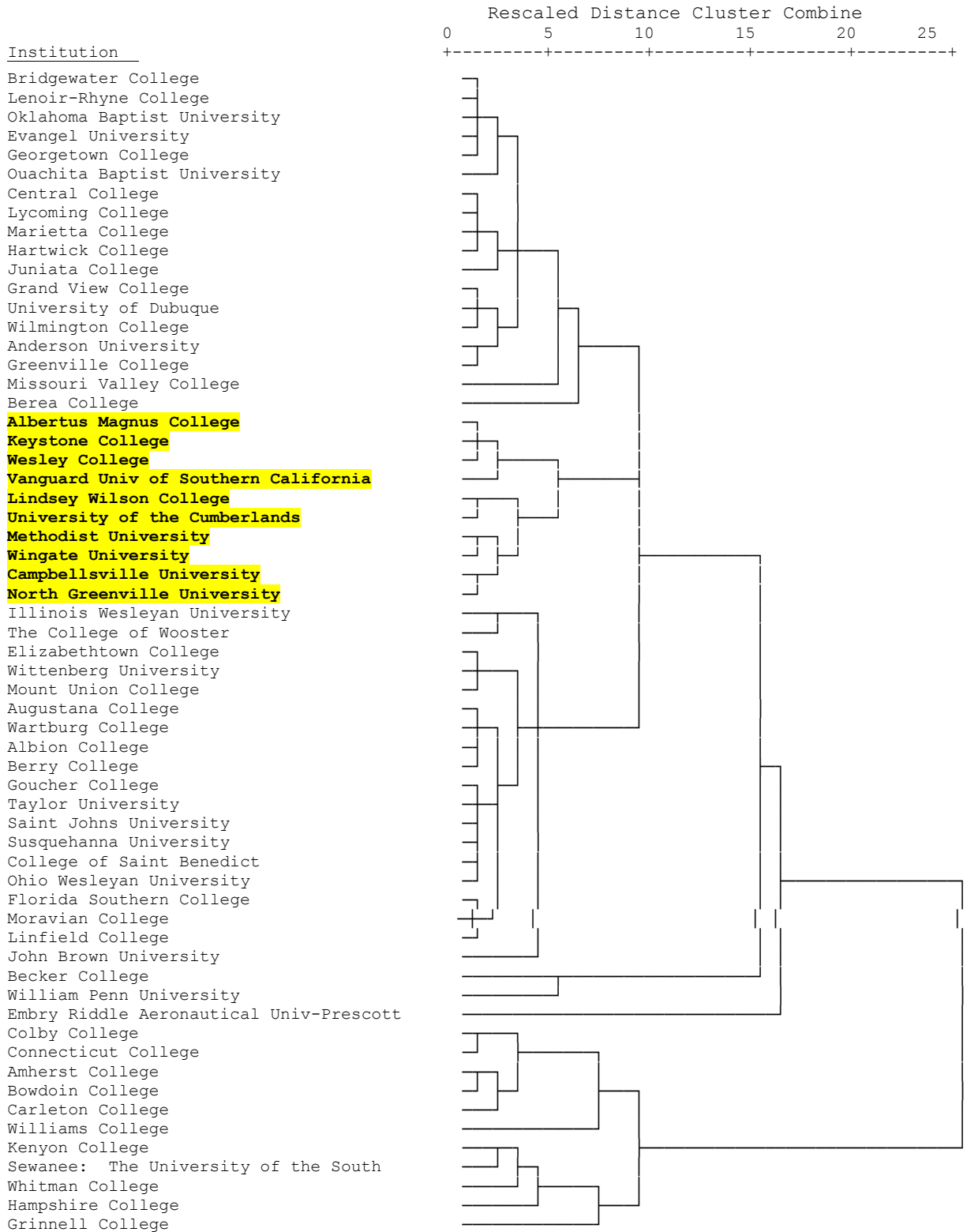
Appendix D: Statistical Table for ASQ and ESQ Perceptions of LWC's Value

Factor	ASQ mean	ESQ mean	Sig. (2-tailed)	Standard Deviation	Standard Error Mean
Surrounding area (neighborhood, town, etc.)	2.92	2.51	0.007	1.254	0.162
Quality of social life	3.02	3.04	0.920	0.707	0.100
Quality of campus physical environment	3.18	2.85	0.008	0.741	0.113
Quality of academic facilities	3.40	3.41	0.901	0.660	0.101
Opportunities for extra-curricular activities	3.45	3.23	0.066	0.657	0.099
Independent study, honors, faculty interaction	3.30	3.24	0.623	1.045	0.145
Guidance regarding a career following graduation	3.24	3.13	0.394	0.727	0.104
Availability of special academic programs	3.10	3.54	< 0.001	0.707	0.108
Availability of recreational facilities	3.18	2.62	< 0.001	0.686	0.100
Availability of merit scholarships	3.21	3.15	0.653	0.944	0.136
Academic reputation	2.95	3.11	0.257	0.799	0.125

Appendix E: Viewbook Analysis: LWC and Competitor Institutions

	Campbellsville University	Eastern Kentucky University	Lindsey Wilson College	University of Kentucky	Somerset Community C.	Western Kentucky Univ.
Articulation of Mission	<ul style="list-style-type: none"> Christian-focused mission expressed in four core values 	<ul style="list-style-type: none"> No mission statement 	<ul style="list-style-type: none"> Full mission statement with “every student, every day” 	<ul style="list-style-type: none"> Vision to become a top 20 research institution 	<ul style="list-style-type: none"> No mission statement 	<ul style="list-style-type: none"> Vision: “A leading American university with international reach”
Content Themes: <i>- Phrase</i>	“Find Your Calling”	“What If..?”	“Express Yourself	“See Blue”	“Higher Education Begins Here”	“Imagine”
<i>-Customer value</i>	<ul style="list-style-type: none"> Student profiles; 32 states, 28 countries 	<ul style="list-style-type: none"> Pay less, get more for money 	<ul style="list-style-type: none"> Faculty-student relationships; student and faculty profiles; 26 states, 30 countries 	<ul style="list-style-type: none"> Student profiles: “what’s on my iPod?; student connections 	<ul style="list-style-type: none"> Small classes; flexible schedules; incredible value 	<ul style="list-style-type: none"> Student profiles; 46 states, 56 countries
<i>-Customer costs</i>	<ul style="list-style-type: none"> “Valuable education;” promote low cost 	<ul style="list-style-type: none"> Financial aid; targeted tuition 	<ul style="list-style-type: none"> 95% receive financial aid; financial aid placed at end of viewbook 	<ul style="list-style-type: none"> Financial aid placed early in viewbook 	<ul style="list-style-type: none"> Half the cost of 4-year publics 	<ul style="list-style-type: none"> Financial aid
<i>-Customer convenience</i>	<ul style="list-style-type: none"> Map with surrounding cities 	<ul style="list-style-type: none"> Emphasis on campus beauty; visit to campus 	<ul style="list-style-type: none"> Map with surrounding cities; Adair County profile 	<ul style="list-style-type: none"> Profile of residential living, cities 	<ul style="list-style-type: none"> Campus locations 	<ul style="list-style-type: none"> “Cool college town”
<i>-Personal attention</i>	<ul style="list-style-type: none"> 13:1 student-to-faculty ratio 	<ul style="list-style-type: none"> 17:1 student-to-faculty ratio 	<ul style="list-style-type: none"> 19:1 student-to-faculty ratio 	<ul style="list-style-type: none"> Residence halls 	<ul style="list-style-type: none"> “Why SCC is right for you” 	<ul style="list-style-type: none"> 18:1 student to faculty ratio
Differentiation	<ul style="list-style-type: none"> Christian growth; superior resources and U.S. News Rankings 	<ul style="list-style-type: none"> Diverse; student-friendly; and active campus. 	<ul style="list-style-type: none"> Student support; faculty relationships with students; and campus growth 	<ul style="list-style-type: none"> National reputation in sports and academic programs 	<ul style="list-style-type: none"> Career orientation and price differentiation 	<ul style="list-style-type: none"> Convenience and journalism program
Quality of Style	<ul style="list-style-type: none"> Smaller, short; 12 versions; target parents as well 	<ul style="list-style-type: none"> Long, well-designed; less and larger pictures, mostly of students 	<ul style="list-style-type: none"> Long, high text; large amount of visuals 	<ul style="list-style-type: none"> High quality; students active in pictures 	<ul style="list-style-type: none"> Cheaper, smaller and more concise 	<ul style="list-style-type: none"> Shaped differently; large pictures

Appendix F: Hierarchical Cluster Analysis for Identifying Peer Institutions



¹ Variables used in model: 12-month FTE enrollment: Academic year 2006-2007, Number of full-time instructional faculty total, Revenues from tuition and fees per FTE (FASB), SAT Reading average score, SAT Math average score. Also narrowed population by institutional control, location, Carnegie classification, HBCU and +/- 20% total FTE enrollment from Lindsey Wilson College.

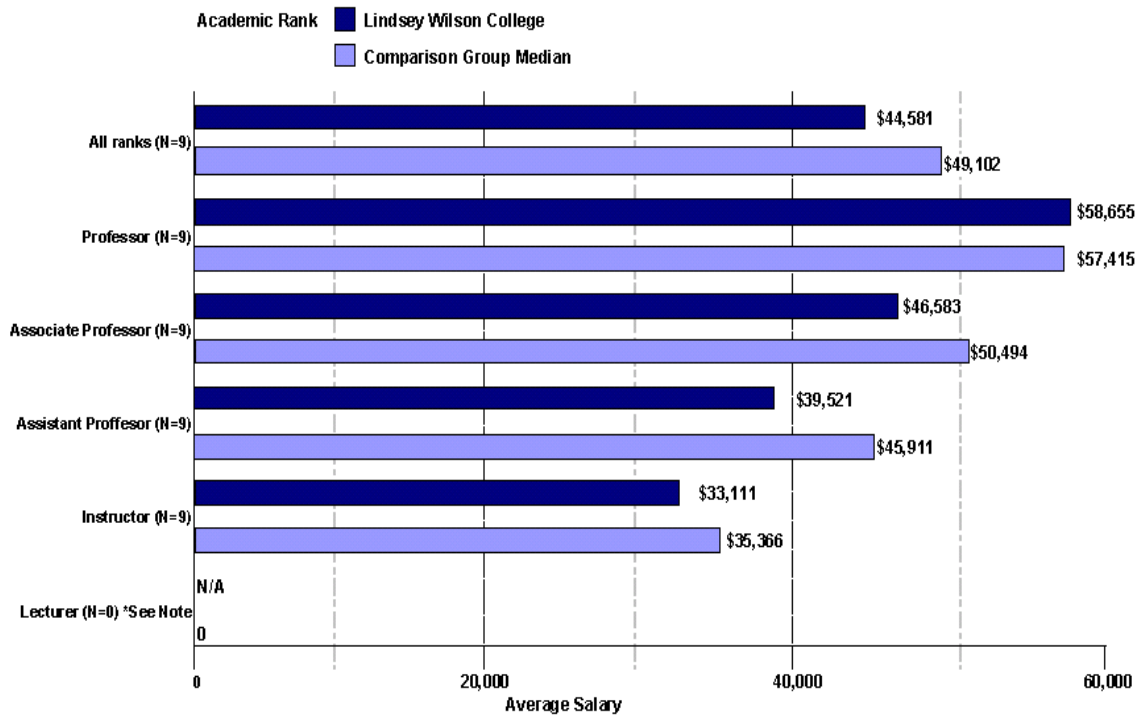
Appendix G. Mission Statements of Peer Institutions

Institution	Mission statement
Lindsey Wilson College	The mission of Lindsey Wilson College is to serve the educational needs of students by providing a living-learning environment within an atmosphere of active caring and Christian concern where every student, every day, learns and grows and feels like a real human being.
Vanguard University of Southern California	The purpose of Vanguard University is to pursue knowledge, cultivate character, deepen faith, and equip each student for a life of leadership and service. To fulfill that purpose, Vanguard gathers a community of learners resolved to blend the pursuit of academic excellence with growth as authentic Christians. The educational experience at Vanguard, therefore, promotes the integration of faith, learning, and living. The university believes that scholarship in the arts, sciences, and professional studies illuminated by Christian truth fosters the intellectual development, moral maturity, and spiritual vitality of students. The university motto--Truth, Virtue, and Service—express our conviction that learning involves the whole person: head, heart, and hands.
Albertus Magnus College	The mission of Albertus Magnus College is to provide men and women with an education that promotes the search for truth in all its dimensions and is practical in its application. Founded by the Dominican Sisters of Saint Mary of the Springs, Albertus Magnus College, faithful to its Catholic heritage and the Judeo-Christian tradition, remains dedicated to providing an opportunity for learning which responds to the academic needs and ethical challenges of its students and of society.
Wesley College	Wesley College seeks to be an institution for helping students gain the knowledge, skills, and the moral and ethical attitudes necessary to achieve their personal goals and contribute to the welfare of their communities in the global society. The College endeavors to impart a desire for life-long learning and an enhanced capacity for critical and creative thinking so that students can reap the reward of intellectual growth and professional effectiveness. As a College in a covenant relationship with the United Methodist Church and founded upon Christian principles, Wesley strives to realize a holistic campus environment of common purpose, caring, tolerance, inclusiveness, responsibility, and service that is the heart of community.
Campbellsville University	Campbellsville University is a comprehensive, Christian institution that offers undergraduate and graduate programs. The university stresses academic excellence solidly grounded in the liberal arts, personal growth, integrity, and fellowship within a caring environment. The university seeks to prepare students to enrich their own lives through life-long learning, to contribute to their respective disciplines through continued scholarship, and to improve society as Christian servant leaders.

University of the Cumberlands	UC continues to offer promising students of all backgrounds a broad based liberal arts program enriched with Christian values. The university strives for excellence in all of its endeavors and expects from students a similar dedication to this pursuit. Its commitment to a strong academic program is joined with a commitment to a strong work ethic. UC encourages students to think critically and creatively so that they may better prepare themselves for lives of responsible service and leadership.
Methodist University	Methodist University, historically supported by the North Carolina Annual Conference of the United Methodist Church, owes its origin and values to the life and teachings of Jesus Christ. The college is committed to an ecumenical spirit, respects diversity, and recognizes the dignity and worth of all human beings. The college's programs are based on the conviction that a liberally educated person is sensitive to the needs and rights of others. Methodist University affirms the importance of intellectual values and ethical principles such as truth, virtue, justice, and love. The college community seeks to develop whole persons who will contribute substantially and creatively to the professions and to civic life. Therefore, Methodist University provides opportunities for spiritual, academic, and social growth, to the end that students may acquire enlightened minds and responsible spirits, as well as a continuing thirst for knowledge. The purpose of Methodist University is to provide an undergraduate and graduate education firmly grounded in the liberal arts tradition that nurtures moral values and ethical decision making; to provide distinctive professional and graduate programs that complement the undergraduate programs; to provide educational and cultural services and resources to the community; and to prepare students for a variety of careers and educational pursuits.
Wingate University	The mission of Wingate University is to develop educated, ethical, and productive citizens at home and abroad. Following its Judeo-Christian heritage, the University seeks to cultivate the following in its students: Knowledge, Faith, and Service.
Keystone College	Keystone College educates women and men in the liberal arts tradition, while also emphasizing career training, which combines technology and applied skills with broad humanitarian concerns. Keystone is committed to the development of well-educated, self-directed persons who can communicate effectively, make informed decisions, and think critically and creatively.
North Greenville University	Where Christ makes the Difference (true mission statement not found on website)

Appendix H: Average Faculty Salaries, by Rank for LWC and Peer Institutions

Average salaries of full-time instructional staff equated to 9-month contracts, by academic rank: Academic year 2007-08



Note: Not enough values in the comparison group to calculate median

U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data Systems (IPEDS): Winter 2007-08, Human Resources component

Appendix I: Enrolled Student Questionnaire: Items Pertaining to First-Semester Analysis of Student Departure

REASONS FOR ATTENDING COLLEGE (Bui, 2002)		
56	Friends were going to college (friends)	Student's rating of the importance of friends going to college in his/her decision to attend college (C/R= cannot rate; 1= not important; 2 = less important; 3= somewhat important; 4= very important)
57	Siblings or other relatives going (or went) to college (siblings)	Student's rating of the importance of friends going to college in his/her decision to attend college (C/R= cannot rate; 1= not important; 2 = less important; 3= somewhat important; 4= very important)
58	Parents expectations of going to college (parents)	Student's rating of the importance of friends going to college in his/her decision to attend college (C/R= cannot rate; 1= not important; 2 = less important; 3= somewhat important; 4= very important)
59	High school teachers/counselors persuaded (hsteachers)	Student's rating of the importance of friends going to college in his/her decision to attend college (C/R= cannot rate; 1= not important; 2 = less important; 3= somewhat important; 4= very important)
60	Need a college degree to achieve career goals (careergoals)	Student's rating of the importance of friends going to college in his/her decision to attend college (C/R= cannot rate; 1= not important; 2 = less important; 3= somewhat important; 4= very important)
61	Wanted to earn a better income with a college degree (betterincome)	Student's rating of the importance of friends going to college in his/her decision to attend college (C/R= cannot rate; 1= not important; 2 = less important; 3= somewhat important; 4= very important)
62	Wanted to gain respect/status by having a college degree (respectstatus)	Student's rating of the importance of friends going to college in his/her decision to attend college (C/R= cannot rate; 1= not important; 2 = less important; 3= somewhat important; 4= very important)
63	Wanted to bring honor to family (honorfamily)	Student's rating of the importance of friends going to college in his/her decision to attend college (C/R= cannot rate; 1= not important; 2 = less important; 3= somewhat important; 4= very important)

64	Wanted to help family out after completing college (helpfamily)	Student's rating of the importance of friends going to college in his/her decision to attend college (C/R= cannot rate; 1= not important; 2 = less important; 3= somewhat important; 4= very important)
65	Like to learn/study (learn)	Student's rating of the importance of friends going to college in his/her decision to attend college (C/R= cannot rate; 1= not important; 2 = less important; 3= somewhat important; 4= very important)
66	Wanted to provide a better life for own children (betterlife)	Student's rating of the importance of friends going to college in his/her decision to attend college (C/R= cannot rate; 1= not important; 2 = less important; 3= somewhat important; 4= very important)
67	Wanted to gain independence (gainindepend)	Student's rating of the importance of friends going to college in his/her decision to attend college (C/R= cannot rate; 1= not important; 2 = less important; 3= somewhat important; 4= very important)
68	Wanted to move out of parents' home (moveout)	Student's rating of the importance of friends going to college in his/her decision to attend college (C/R= cannot rate; 1= not important; 2 = less important; 3= somewhat important; 4= very important)
69	Wanted to acquire skills to function effectively in society (acquireskills)	Student's rating of the importance of friends going to college in his/her decision to attend college (C/R= cannot rate; 1= not important; 2 = less important; 3= somewhat important; 4= very important)
70	Wanted to get out of parents' neighborhood (getoutneighborhood)	Student's rating of the importance of friends going to college in his/her decision to attend college (C/R= cannot rate; 1= not important; 2 = less important; 3= somewhat important; 4= very important)
71	Did not want to work immediately after high school (notworkafterhs)	Student's rating of the importance of friends going to college in his/her decision to attend college (C/R= cannot rate; 1= not important; 2 = less important; 3= somewhat important; 4= very important)
CULTURAL CAPITAL		
72	Took private art lessons (art)	Student report on how frequently they engaged in this activity in their last year of high school (1= Never; 2= Seldom; 3 = Occasionally; 4= Frequently; 5= Very frequently)

73	Participated in a school play or musical (play)	Student report on how frequently they engaged in this activity in their last year of high school (1= Never; 2= Seldom; 3 = Occasionally; 4= Frequently; 5= Very frequently)
74	Took private music lessons (music)	Student report on how frequently they engaged in this activity in their last year of high school (1= Never; 2= Seldom; 3 = Occasionally; 4= Frequently; 5= Very frequently)
75	Participated in band or orchestra (band)	Student report on how frequently they engaged in this activity in their last year of high school (1= Never; 2= Seldom; 3 = Occasionally; 4= Frequently; 5= Very frequently)
76	Participated in chorus or choir (chorus)	Student report on how frequently they engaged in this activity in their last year of high school (1= Never; 2= Seldom; 3 = Occasionally; 4= Frequently; 5= Very frequently)
77	Participated in dance at school (dance)	Student report on how frequently they engaged in this activity in their last year of high school (1= Never; 2= Seldom; 3 = Occasionally; 4= Frequently; 5= Very frequently)
78	Participated in drama club (drama)	Student report on how frequently they engaged in this activity in their last year of high school (1= Never; 2= Seldom; 3 = Occasionally; 4= Frequently; 5= Very frequently)
79	Visited art museums (artmuseums)	Student report on how frequently they engaged in this activity in their last year of high school (1= Never; 2= Seldom; 3 = Occasionally; 4= Frequently; 5= Very frequently)
80	Visited history museums (historymus)	Student report on how frequently they engaged in this activity in their last year of high school (1= Never; 2= Seldom; 3 = Occasionally; 4= Frequently; 5= Very frequently)
81	Attended a symphony concert (symphony)	Student report on how frequently they engaged in this activity in their last year of high school (1= Never; 2= Seldom; 3 = Occasionally; 4= Frequently; 5= Very frequently)
82	Took a dance class outside of school (danceoutside)	Student report on how frequently they engaged in this activity in their last year of high school (1= Never; 2= Seldom; 3 = Occasionally; 4= Frequently; 5= Very frequently)
83	Studied a foreign language outside regular school (languageoutside)	Student report on how frequently they engaged in this activity in their last year of high school (1= Never; 2= Seldom; 3 = Occasionally; 4= Frequently; 5= Very frequently)

84	Borrowed books from the public library (public library)	Student report on how frequently they engaged in this activity in their last year of high school (1= Never; 2= Seldom; 3 = Occasionally; 4= Frequently; 5= Very frequently)
85	Read for pleasure outside of school (readpleasure)	Student report on how frequently they engaged in this activity in their last year of high school (1= Never; 2= Seldom; 3 = Occasionally; 4= Frequently; 5= Very frequently)
86	Participated in a youth religious club/group (religiousclub)	Student report on how frequently they engaged in this activity in their last year of high school (1= Never; 2= Seldom; 3 = Occasionally; 4= Frequently; 5= Very frequently)
87	Read or meditated on sacred or religious writings (religiouswritings)	Student report on how frequently they engaged in this activity in their last year of high school (1= Never; 2= Seldom; 3 = Occasionally; 4= Frequently; 5= Very frequently)
88	Traveled abroad (abroad)	Student report on how frequently they engaged in this activity in their last year of high school (1= Never; 2= Seldom; 3 = Occasionally; 4= Frequently; 5= Very frequently)
89	Attended a ballet performance (ballet)	Student report on how frequently they engaged in this activity in their last year of high school (1= Never; 2= Seldom; 3 = Occasionally; 4= Frequently; 5= Very frequently)
90	Attended an opera performance (opera)	Student report on how frequently they engaged in this activity in their last year of high school (1= Never; 2= Seldom; 3 = Occasionally; 4= Frequently; 5= Very frequently)
91	Discussed religion or spirituality (religion)	Student report on how frequently they engaged in this activity in their last year of high school (1= Never; 2= Seldom; 3 = Occasionally; 4= Frequently; 5= Very frequently)
92	Attended a religious service (religservice)	Student report on how frequently they engaged in this activity in their last year of high school (1= Never; 2= Seldom; 3 = Occasionally; 4= Frequently; 5= Very frequently)
93	Spent time in prayer or meditation (prayer)	Student report on how frequently they engaged in this activity in their last year of high school (1= Never; 2= Seldom; 3 = Occasionally; 4= Frequently; 5= Very frequently)
94	Performed volunteer work (volunteer)	Student report on how frequently they engaged in this activity in their last year of high school (1= Never; 2= Seldom; 3 = Occasionally; 4= Frequently; 5= Very frequently)

95	Equally prepared for college as other students are (prepared)	Student's rating of their degree of agreement based on their early college experience (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree)
96	Fear of failing in college (failingfear)	Student's rating of their degree of agreement based on their early college experience (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree)
97	Comfort in making most decisions related to college on my own (decisions)	Student's rating of their degree of agreement based on their early college experience (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree)
98	Concerned about financial aid and/or money for school (financialworry)	Student's rating of their degree of agreement based on their early college experience (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree)
99	I knew a lot about the academic programs at Lindsey Wilson College before coming to this school (academicprog)	Student's rating of their degree of agreement based on their early college experience (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree)
100	Before enrolling at Lindsey Wilson College, I knew a lot about the college's social environment (socialenviron)	Student's rating of their degree of agreement based on their early college experience (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree)
101	It is easy for me to make friends at Lindsey Wilson College (makefriends)	Student's rating of their degree of agreement based on their early college experience (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree)
102	I like being a student at Lindsey Wilson College (likebeingstudent)	Student's rating of their degree of agreement based on their early college experience (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree)
103	I feel I have put more time into studying than other students do because my high school did not prepare me well for college. (timestudying)	Student's rating of their degree of agreement based on their early college experience (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree)
104	Overall, I feel accepted at Lindsey Wilson College (accepted)	Student's rating of their degree of agreement based on their early college experience (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree)
105	My parents (or guardians) are emotionally supportive of my enrollment and success at Lindsey Wilson (parentssupport)	Student's rating of their degree of agreement based on their early college experience (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree)

106	My religious beliefs and convictions are strong (religiousbeliefs)	Student's rating of their degree of agreement based on their early college experience (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree)
107	I am satisfied with the opportunities at Lindsey Wilson for religious/spiritual development (opportspiritualdevmt)	Student's rating of their degree of agreement based on their early college experience (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree)
108	Compared to my peers, I am a more spiritual person (more spiritual)	Student's rating of their degree of agreement based on their early college experience (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree)
109	Compared to my peers, I am more religiously active (religiousactive)	Student's rating of their degree of agreement based on their early college experience (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree)
110	Developing a meaningful philosophy of life is very important to me (philosophylife)	Student's rating of their degree of agreement based on their early college experience (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree)
111	Integrating spirituality in my life is very important to me (spiritualintegration)	Student's rating of their degree of agreement based on their early college experience (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree)
112	Strengthening my religious beliefs/convictions is very important to me (strengthreligious)	Student's rating of their degree of agreement based on their early college experience (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree)
113	The religious affiliation/orientation of Lindsey Wilson was important in my choice to enroll here (affiliationchoice)	Student's rating of their degree of agreement based on their early college experience (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree)
114	In general, I like the way students treat each other at Lindsey Wilson (studtreat)	Student's rating of their degree of agreement based on their early college experience (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree)
115	Too many students at Lindsey Wilson leave campus on the weekends (leavecampus)	Student's rating of their degree of agreement based on their early college experience (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree)
116	There are students on campus that I would like to know better (studentsknowbetter)	Student's rating of their degree of agreement based on their early college experience (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree)

117	I see several ways that I can make connections with other students on campus (connections)	Student's rating of their degree of agreement based on their early college experience (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree)
118	I'm confident that there are students on campus with whom I share important values (sharevalues)	Student's rating of their degree of agreement based on their early college experience (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree)
119	In general, students here encourage academic success (studacademssuccess)	Student's rating of their degree of agreement based on their early college experience (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree)
120	Academic advising is a strong component of the academic environment at Lindsey Wilson (advising)	Student's rating of their degree of agreement based on their early college experience (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree)
121	Freshman orientation adequately prepared me for success in the academic environment (orientatprep)	Student's rating of their degree of agreement based on their early college experience (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree)
122	Freshman orientation adequately prepared me for success in the social environment (orientatsocial)	Student's rating of their degree of agreement based on their early college experience (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree)
CAMPUS INVOLVEMENT IN EXTRACURRICULAR ACTIVITIES		
131	Extracurricular activities currently involved in (extracurricular)	Student's indication of areas of involvement (check box: None; General Interest Groups: Art Club, Health and Fitness Club, High Adventure Club, Raiderettes Dance Team, Lindsey Wilson College Cheerleaders, Travel Club; Social and Diversity Groups: Black Student Union, International Student Association, EAGLEs (Eager Adults Growing Learning Excelling), Phillips Hall Council, Student Activities Board, Women for a New Generation; Academic and Honors Groups: Alpha Chi Honor Society, Kentucky Educational Association-Student Program, Student Counseling Association, Students Interested in Free Enterprise, Student League of Sciences, Accounting Club; Religious Groups: Student Pastor's Fellowship, Baptist Student Union, Fellowship of Christian Athletes, Methodist Student Fellowship;

		Service and Leadership Groups: Alpha Phi Omega Service Fraternity, Bonner Leaders, Peer Educators, Student Alumni Relations Council, Student Ambassadors, Student Government Association; Performing Arts Groups: Drama Club, Lindsey Wilson Singer
132	Plans to become involved (or stay involved) next semester (involvenext)	Student's indication of desire to be involved or remain involved in extracurricular activities (1 = Yes; 2= No)
133	Which group(s) planning to become involved with (planinvolved)	Student's plans to be involved with a specific group (open)

Appendix J: Enrolled Student Questionnaire: Description of Variables and Logistic Regression Results

Coded Variable	Definition
FGSTUDENT	Student reporting mother's highest level of educational attainment and father's highest level of educational attainment (2 items), recoded into dummy variable (1 = neither parent attended college, 0 = at least one parent attended college)
PARENTSINCOME	Self-reported estimate of parents' total income last year from all sources before taxes.
CULTURALCAPITAL	Aggregate score of 23 items asking respondents about how much they engaged in various cultural activities over the past year (see items 72-94 in ESQ, Appendix K) (1 = never; 5 = Very frequently)
WORK	Student indication of employment while enrolled, recoded into dummy variable (1= works; 0 = does not work)
ACT	Self-reported highest score on the ACT (open-ended item)
PLANINVOLVED	Student indication of plans to either stay involved in a club or organization or to become involved (1 = Yes; 0 = No)
ONCAMPUS	Student indication of place of residence (1 = on-campus; 0 = off campus)
GENDER	Student indication of gender (1= male; 2 = female)
MINORITY	Student indication of race/ethnicity, recoded as dummy variable (2 = minority; 1 = white)
PREPARED	Students perception of being equally prepared for college as other students are (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree)
FAILINGFEAR	Students rating of fear of failing in college (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree), reverse coded
DECISIONS	Students rating of comfort in making most decisions related to college on their own (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree)

FINANCIALWORRY	Students degree of concern about financial aid and/or money for school (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree), reverse coded
KNEWACADEM	Student rating of degree to which they knew a lot about the academic programs at Lindsey Wilson College before coming to this school (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree)
KNEWSOCIAL	Student rating of degree to which before enrolling at Lindsey Wilson College, they knew a lot about the college's social environment (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree)
MAKEFRIENDS	Students perception of It is easy for me to make friends at Lindsey Wilson College (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree)
LIKEBEINGSTUDLWC	Students perception of I like being a student at Lindsey Wilson College (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree)
ACCEPTED	Students perception of overall, I feel accepted at Lindsey Wilson College (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree)
PARENTSSUPPORT	Students perception of My parents (or guardians) are emotionally supportive of my enrollment and success at Lindsey Wilson (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree)
LEAVCAMPWKD	Students perception of Too many students at Lindsey Wilson leave campus on the weekends (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree), reverse coded
STUDKNOWBETTER	Students perception of There are students on campus that I would like to know better (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree)
CONNECTIONS	I see several ways that I can make connections with other students on campus (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree)
SHAREVALUES	I'm confident that there are students on campus with whom I share important values (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree)
STUDACADSUCCESS	In general, students here encourage academic success. (1=Strongly Disagree, 2= Disagree, 3=Agree, 4=Strongly Agree)

INITIALCOMMITMENT	Student indicating whether Lindsey Wilson College was their first choice institution (1=lower than third choice, 2=third choice, 3=second choice, 4=first choice); reverse coded.
DEPENDENT VARIABLE	
INTERMEDCOMM	Plans to graduate from Lindsey Wilson College (Yes = 2, No = 1).

Descriptive Statistics from Enrolled Student Questionnaire (ESQ)

Student Characteristics			Other Variables in Model		
	N (or average)	%	Variable	Mean	SD
Fgstudent	91	36	Prepared	3.07	.714
ParentsIncome	(\$40,000 - 49,999)		FailingFear	2.20	1.033
Culturalcapital	(45.3)		Decisions	3.13	.687
Work	101	40	FinancialWorry	3.02	.972
ACT	21		KnewAcadem	2.65	.822
PlanInvolved	104	41	KnewSocial	2.59	.934
OnCampus	184	72	MakeFriends	3.24	.796
Gender	154	60	LikeBeingStudLWC	3.28	.772
Minority	40	16	Accepted	3.38	.647
Initialcommitment	191	75	ParentsSupport	3.59	.675
DV: IntermedCommit	196	76	LeavCampwkd	2.44	1.085
			StudKnowBetter	3.17	.775
			Connections	3.04	.641
			ShareValues	3.18	.601
			StudAcadSuccess	3.00	.649

Fall 2008: Summary of logistic regression analysis for variables predicting intermediate commitment to the institution

Factor	Beta	p	S.E.	Exp (B)
Fgstudent	-0.568	.344	0.600	0.567
ParentsIncome	-0.320**	.010	0.127	0.726
Culturalcapital	-0.047*	.050	0.024	0.954
Work	-0.116	.857	0.645	0.891
ACT	0.140	.150	0.097	1.150
PlanInvolved	1.895**	.010	0.753	6.656
OnCampus	0.827	.213	0.664	2.287
Gender	0.845	.199	0.658	2.328
Minority	0.637	.563	1.102	1.891
Prepared	-0.963	.057	0.507	0.382
FailingFear	0.561	.130	0.371	1.753
Decisions	1.947***	.001	0.589	7.010
FinancialWorry	-0.004	.992	0.337	0.996
KnewAcadem	1.125*	.037	0.539	3.083
KnewSocial	-1.010*	.050	0.516	0.364
MakeFriends	0.717	.138	0.483	2.048
LikeBeingStudLWC	0.775	.070	0.428	2.170
Accepted	2.845***	.001	0.848	17.203
ParentsSupport	0.426	.428	0.538	1.532
LeavCampwkd	0.217	.526	0.343	1.242
StudKnowBetter	1.062*	.026	0.478	2.892
Connections	-1.476*	.038	0.712	0.228
ShareValues	-1.856*	.019	0.789	0.156
StudAcadSuccess	1.659*	.013	0.669	5.255
Initialcommitment	0.615	.114	0.389	1.849
Constant	-19.949***		5.735	0.000
Chi-square	101.982			
Df	25			

*p≤.05; **p≤.01; ***p≤.001

Appendix K: Collegiate Experiences Survey: Variable Definitions and Regression Table

Description of variables from the collegiate experience survey

<i>Variable (code)</i>	Definition
Sex of Respondent (gender)	Student gender (1= male; 2 = female)
Student employment (working)	Student reported working while full-time enrolled in school (0 = does not work; 1 = works while in school), combined and recoded from workoff and workon items in survey)
First-generation student (FG)	Student identified as first generation student according to reported parent highest level of educational attainment for both parents- neither parent attended college (0 = non-first generation; 1 = first generation), combined and recoded
High school GPA (Gpahs)	Self-reported grade point average in high school (10 = A or A+; 1 = D or lower), reverse scored
Residential Student (livesoncampus)	Student reported living on or off campus (1 = on campus; 0 = off-campus)
Institutional Commitment to Student Welfare (ComStWel)	Composite of eleven items measuring student perceptions of the institutions commitment to their welfare: Most faculty members I have contact with are genuinely interested in students, most student services staff (e.g. dean of students office, student activities, housing, etc.); I have had contact with are genuinely interested in students; most other Lindsey Wilson College staff (e.g. registrar, student accounts, financial aid, etc.); I have had contact with are genuinely interested in students; most of the faculty I have had contact with are interested in helping students grow in more than just academic areas, most of the campus religious leaders (e.g. chaplain, bible study leaders, etc.); I have had contact with are genuinely interested in students; I have experienced negative interactions with faculty members reverse scored); I have experienced negative interactions with student services staff (reverse scored); I have experienced negative interactions with other Lindsey Wilson College staff (reverse scored); in general, faculty members treat students with respect; in general, student services staff treat students with respect; in general, other Lindsey Wilson College staff treat students with respect. (1 = strongly disagree; 4 = strongly agree) Cronbach's Alpha = .903

<p>Institutional Integrity (InstInteg)</p>	<p>Composite of five items measuring student perception that the institution embodies integrity in its actions and communications: The actions of the administration are consistent with the stated mission of this institution; my institution almost always does the right thing; the values of this institution are communicated clearly to the campus community; since I have been a student here, the rules of this institution appear in harmony with the values the institution espouses; since I have been a student here, the decisions made at this institution rarely conflict with the values it espouses. (1 = strongly disagree; 4 = strongly agree) Cronbach's Alpha = .879</p>
<p>Academic Integration (AcadIntegrat)</p>	<p>Composite of four items measuring the degree of satisfaction and fit between students and the academic environment of the college: I am satisfied with my academic experience at Lindsey Wilson College; I am satisfied with the extent of my intellectual development since enrolling here; my interest in ideas and intellectual matters has increased since coming to this institution; my academic experience here has had a strong positive influence on my intellectual growth and interest in ideas. (1 = strongly disagree; 4 = strongly agree) Cronbach's Alpha = .837</p>
<p>Active Learning (ActivLearn)</p>	<p>Composite of twelve items measuring active learning associated with classroom pedagogy and assignments: Instructors engage me in classroom discussion or debate of course ideas and concepts; instructors' questions in class ask me to show how a particular course concept could be applied to an actual problem or situation; instructors' questions in class focus on my knowledge of facts; instructors' questions in class ask me to point out any fallacies in basic ideas, principles or points of view presented in the course; instructors' questions in class ask me to argue for or against a particular point of view; most exam questions are limited to my knowledge of facts (reverse scored); few exams require me to use course content to address a problem not presented in the course (reverse scored); most exams require me to compare and contrast dimensions of course content; most exams require me to point out the strengths and weaknesses of a particular argument or point of view; few exams require me to argue for or against a particular point of view and defend my argument; course papers or research projects require me to argue for or against a particular point of view and defend my argument; course papers require me to propose a plan for a research project or experiment. (1 = Never; 4 = Very Often) Cronbach's Alpha = .757</p>

Social Integration (SocInteg)	Composite of seven items measuring the degree of students integration into the social environment: My interpersonal relationships with other students have had a positive influence on my intellectual growth and interest in ideas; since coming to this institution, I have developed close personal relationships with other students; my interpersonal relationships with other students have had a positive influence on my personal growth, values and attitudes; it has been difficult for me to meet and make friends with other students (reverse scored); the student friendships I have developed here have been personally satisfying; few of the students I know would be willing to listen to me and help me if I had a personal problem (reverse scored); most students here have values and attitudes which are different to my own (reverse scored). (1 = strongly disagree; 4 = strongly agree) Cronbach's Alpha = .700
External Environment (ExternEnv)	Composite of three items measuring support from family and parents in college: my family approves of my attending Lindsey Wilson College; my family encourages me to continue attending Lindsey Wilson College; my family encourages me to get a college degree. (1 = strongly disagree; 4 = strongly agree). Cronbach's Alpha = .809
Subsequent Institutional Commitment (SubIntComm)	Composite of two items measuring the degree of subsequent commitment to Lindsey Wilson College: It is NOT important for me to graduate from Lindsey Wilson College (reverse scored); I am confident that I made the right decision in choosing Lindsey Wilson College. Cronbach's Alpha = .622
Persistence (retention)	Student's decision to re-enroll at Lindsey Wilson College in the Fall of 2009: It is likely that I will register at Lindsey Wilson College next fall (1 = strongly disagree; 4 = strongly agree).

Descriptive Statistics for Variables and Scales from the Collegiate Experiences Survey (CES)

	Mean	Std. Deviation
ComStWel	3.36	.47
InstInteg	3.25	.47
AcadIntegrat	3.22	.51
ActivLearn	2.70	.42
SocInteg	3.10	.46
ExternEnv	3.62	.53
SubIntComm	3.27	.70
Retention Proxy	3.44	.81

Spring 2009: Summary of Regression Analyses Predicting Social Integration, Academic Integration and Subsequent Institutional Commitment at Lindsey Wilson College

	Social Integration (SocInteg)	Academic Integration (AcadIntegrat)	Subsequent Institutional Commitment (SubIntComm) (N = 175)	Persistence (retention)
Standardized Beta				
Factor	Beta	Beta	Beta	Beta
gender	.107	-0.022	0.044	-.001
working	-0.232*	-0.038	-0.015	.091
FG	-0.087	-0.006	0.020	.034
Gpahs	0.064	0.067	0.055	-.006
livesoncampus	0.161*	0.033	-0.139*	.009
ComStWel	0.248**	0.156	0.286***	-.142*
InstInteg	0.233*	0.356***	0.031	-.052
ExternEnv	0.090	0.266***	0.349***	.350***
ActivLearn	0.058	0.063	-0.044	.069
SocInteg			0.092	.058
AcadInteg			0.068	.140*
SubIntComm				.568***
Intercept	0.817*	0.165	-0.640	-1.037
SE	0.346	0.345	0.481	.428
N	175	175	175	175
R2	0.339	0.454	0.464	.693
Adjusted R2	0.303	0.424	0.428	.671
Standard error of the estimate	0.38586	0.38545	0.52821	.467
R2 change	0.339	0.454	0.464	.693
F	9.423***	15.226***	12.383***	30.534***
Df	9	9	11	12

*p.< .05; **p < .01; ***p < .001

Appendix L: Structural Limitations: Variable Definitions and Regression Table

Variable descriptions

Data Sources: IPEDS, Decennial Census 2000

Variable (code)	Description
<i>Indicators of Socioeconomic status of students and external environment</i>	
Percentage Federal Aid (PerFedAid)	Percentage of federal grant aid awarded to students based on demonstrated need in 2007
(Log) Average amount of Federal Student Aid (LogAvgFedAid)	Average amount of Federal student aid received in 2007
Percent in county that attained a high school degree or less (PerHSdegonly)	Percent of residents in the county in which the institution is located that attained a high school degree or less (U.S. Census data)
(Log) Median Family Income (LogMedFamInc)	Median family income in the county in which the institution is located (U.S. Census data)
<i>Student academic quality and background characteristics</i>	
SAT Average (SATavg)	Averaged score of Composite SAT 25 th percentile and Composite SAT 75 th percentile by institution (verbal and math sections)
Percent admitted 2007 (PntAdmit)	Percentage of student who applied and were admitted to the institution in 2007
Percent Yield rate (yield)	Percentage of those admitted who enrolled in the institution for 2007
Percent female (female)	Percentage of females enrolled at the institution
Percent minority (minority)	Percentage of non-white students enrolled at the institution in 2007
Percent full time (Fulltime)	Percentage of full-time enrolled students at the institution in 2007

Institutional Size and Expenditures

(Log) Instructional expenditure for FTE (Log InstrExp)	IPEDS (2009) defines as, “expenses of the colleges, schools, departments, and other instructional divisions of the institution and expenses for departmental research and public service that are not separately budgeted. Includes general academic instruction, occupational and vocational instruction, community education, preparatory and adult basic education, and regular, special, and extension sessions. Also includes expenses for both credit and non-credit activities. Excludes expenses for academic administration where the primary function is administration (e.g., academic deans)”, natural log number calculated
Full-time equivalent enrollment total (FTEenroll)	Number of full-time equivalent students enrolled at the institution
(Log) Average full-time instructional faculty salary for 9 month contracts (Log Fsalary)	Average salary for all ranks of full-time instructional faculty (based on 9 month contracts), natural log number calculated
(Log) Student service support expenditure	IPEDS (2009) defines this as “expenses for admissions, registrar activities, and activities whose primary purpose is to contribute to students emotional and physical well - being and to their intellectual, cultural, and social development outside the context of the formal instructional program. Examples include student activities, cultural events, student newspapers, intramural athletics, student organizations, supplemental instruction outside the normal administration, and student records”, natural log number calculated

Financial Aid and Tuition and Fees

(Log) Average Institutional aid awarded	Average institutional grant aid awarded to students in 2007, natural log number calculated
(Log) Average amount of student loans awarded	Average amount of student loans awarded to students in 2007, natural log number calculated
Percent of local/state grant aid received (PerLocalAid)	Percentage of local and state grant aid received by students in 2007
(Log) Tuition and Fees for FTE	Total tuition and fees per full-time enrolled student in 2007, natural log number calculated

Dependent Variable: Student Retention

Full-Time Retention rate	“Full-time retention rate is the percent of the full-time fall cohort from the prior year minus exclusions from the full-time fall cohort, that enrolled at the institution as either full- or part-time in the current year” (IPEDS)
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Descriptive Statistics: Structural Limitations Linear Regression

	Mean	Std. Deviation
Full-time retention rate 2007	70.99	10.39
Percentage receiving federal grant aid	30.97	14.04
Average amount of Federal Aid	3500.20	743.92
Percent of people with only a high school degree	33%	0.07
Households: Median household income in 1999	39882.34	8432.74
SAT average	999.73	113.58
Percent admitted	70%	0.13
Yield rate	36%	0.13
Percent female	59%	0.10
Percent minority	16%	0.15
Percent full-time students total	86%	0.13
Instruction expenses per FTE (FASB)	6634.30	2376.99
FTEenrol06	1703.69	923.02
Average salary equated to 9-month contracts of full-time instructional staff – all ranks	49744.25	8791.697
Student service expenses per FTE (FASB)	3498.34	1346.138
Average amount of institutional grant aid received	7780.17	2898.664
Average amount of student loan aid received	5136.95	1914.184
Percentage receiving state/local grant aid	42%	0.24
Average tuition and fees	11220.41	3070.739

Structural Limitations: Institutional Level Predictors of Retention Rates for Non-Selective Private Institutions

Standardized betas			
Factor	Beta	p	T
Per FedAid	-0.140	.121	-1.558
Log AvgFedAid	0.079	.310	1.018
PerHSdegonly	0.097	.195	1.303
Log MedFamInc	0.134	.106	1.624
SATavg	0.222**	.003	3.073
PntAdmit	-0.005	.946	-0.067
Yield	0.052	.490	0.691
Female	0.006	.933	0.084
Minority	-0.031	.691	-0.399
Fulltime	-0.024	.779	-0.282
Log InstrExp	0.221**	.005	2.874
FTEenroll	0.210**	.010	2.543
Log Fsalary	0.003	.968	0.040
Log StudServExp	-0.060	.457	-0.746
Log AvgInstAid	0.061	.498	0.679
Log AvgLoan	0.039	.561	0.583
PerLocalAid	-0.019	.792	-0.264
Log Tuition	0.140	.097	1.672
Intercept	-173.578		
SE	67.187		
N	165		
R2	.428		
Adjusted R2	.418		
Standard error of the estimate	7.924		
F	7.557***		
Df	18		

p ≤ .01; *p ≤ .001