

Increasing Enrollment Yield at a Regional Comprehensive University

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Executive Summary

This project was conducted in response to a request made by Regional Comprehensive University (RCU) requesting a data analysis of its applicant pool and recruitment and admissions processes so as to provide findings to guide development of enrollment management strategies and solutions. The request follows institutional acknowledgment that, despite its high academic standards and retention rates, it ranks sixth of eight public four-year institutions in the state in terms of undergraduate enrollment. Given the anticipated drop in the population of high school age students in the RCU region, RCU seeks to increase its first-time first year student enrollment among the traditional first-time college-going age bracket within the in-state service area and surrounding states. Its initial efforts are focused on improving enrollment management practices to increase its yield rate, which currently stands at 45% according to IPEDS data.

To facilitate development and implement a strategic enrollment plan that can improve enrollment yield rates, RCU seeks to define factors that influence students' decision to attend/not attend RCU and identify potential points of impact in the recruitment-application-enrollment pipeline where contact with prospective students may increase yield. Furthermore, RCU desires to implement enrollment management practices and structures that enable them to measure and monitor prospect coverage and implement management strategies so the organization best supports activities to redirect more RCU applicants. Finally, the institution desires to identify new and sustainable prospect populations.

To advance these goals, this project conducted a three part analysis. Part one examined the RCU applicant pool to identify student enrollment trends. This analysis identified RCU's top competitors as well as the characteristics of the competitive market. Part two of the analysis examined student choice characteristics and enrollment predictors of RCU accepted applicant data. Data originated from RCU applications for admission, National Student Clearinghouse data, and ACT Student Profile data. Analysis revealed factors relevant to students' decision to enroll at RCU and qualitatively triangulated these findings with interviews conducted with enrolled and non-enrolled student applicants along with findings from the literature. Part three analyzed RCU's organizational structure, specifically as related to enrollment management. Data was collected through staff interviews as well as an examination of RCU administrative structure and vision. The analysis linked elements of organization function and staff perceptions to student enrollment choice outcomes. This analysis extended to include areas of opportunity to improve enrollment yield based on the regional yield analysis of RCU top competitors.

Part one of the analysis identified the top 20 competing institutions to where RCU is most likely to lose enrollments. These 20 institutions accounted for 70.5% of applicant enrollments in four-year institutions. Of those attending a four-year institution, twenty institutions accounted for 54.8% of those enrollments, while the remaining 46.2% were distributed among an additional 380 institutions. University F accounted for the largest proportion of these non-

attendees, with 10.9% of applicants who eventually enrolled in a four-year institution enrolling there. Based on enrollment, the top five competitors for RCU applicants are University F, the University D, the University E, University H, and University A. Of those attending a two-year public institution, almost two thirds of applicants attended an institution within the State community college system.

Part two of the analysis served to identify factors that may predict the odds that an accepted applicant will decide to enroll at RCU versus at a competing institution. This analysis further identified potential impact points along the application to enrollment continuum where RCU may be at risk for losing students. Specifically, the analysis examined accepted applicants who enroll at RCU versus any other institution of higher education; enrolled at RCU versus a top five competitor; and, enrollment factors of applicants who lived within the 18 county RCU region. According to application data, student proximity to campus, ethnicity, and the applicant/RCU contact experience significantly and consistently influence student enrollment choice. Furthermore, competing institution comparisons suggest that certainty of an academic pursuit/identity could influence enrollment choice when a student is comparing RCU to a large urban doctoral institution.

Additional analyses of student enrollment choice indicated that RCU contact with students may significantly impact choice in a number of ways and along a number of points in the application to enrollment continuum. The amount and frequency of RCU off campus student contact was a particularly important predictor of student enrollment choice. Overall and sub-analyses of RCU within its region and alongside its top competitors revealed the more off-campus student contact a recruit or applicant had with RCU, the more likely they were to enroll, regardless of other enrollment choice factors. Concurrent with quantity, quality of student contact appeared to be critical to choice decision. Timing and relevancy of information regarding RCU academic programs and value of degree may have the potential to influence student enrollment choice.

Part three of the analysis considered what and how current enrollment management methods may impact application and application to enrollment yield rates. How institutions respond to the student choice process may directly or indirectly influence both their search and consideration of an institution and their ultimate college choice. The analysis considered how RCU may be able to impact these outcomes and the students' ultimate decision through enrollment management strategies that amalgamate and analyze institutional data to gain insights as to what correlates are most likely to impact student choice at their institution. The project team conducted interviews with RCU enrollment management staff to (a) assess content of, (b) knowledge about, (c) perceptions of, and (d) participation in current recruitment, marketing, and enrollment management practices.

Findings of this analysis identified a number of institutional practices and strategies that correspond to student choice. Clear articulation of the institution's mission can help define the mind space the institution wishes to occupy with prospects. Collaboration across function

areas within the department may cement an institutional plan to advance enrollment growth as well as identify and target new student markets, or better reach current student markets. Structure and coordination of departments and staff within the purview of enrollment management may significant impact the quality of the student contact experience with the institution. Leveraging reorganization provides the organization with opportunities to improve communication with the student applicant in terms of quantity and quality. Finally, continual analysis of enrollment metrics of RCU applicants in relation to the competitive market as well as using data to accurately identify enrollment choice factors most critical to the student applicant pool will position RCU to develop recruitment content, identify new applicant populations of opportunity, and organize recruitment resources to improve yield.

The project team offered five recommendations including establishment and administration of an institution-wide and comprehensive Enrollment Growth Delivery Plan that is based off of institutional mission as well as institution, regional, state, and market data and opportunities; identification and establishment of data metrics, collection, and analysis processes to improve institutional understanding of enrollment choice predictors, points of impact most likely to improve yield, and an understanding of RCU's position within the competitive market; leveraging the reorganization of the Office of Enrollment Management to develop policies, procedures, and staffing solutions to create an applicant-center application, admissions, and financial aid processes and programs; assess and re-design recruitment messages to ensure information provided to students aligns with factors driving enrollment choices, in particular factors relating to the value of a RCU degree relative to its competitors; and, establish methods and metrics to improve enrollment growth via the new transfer student population, specifically through capture of "delayed" enrollment yields of students lost to the state community college system.

Institutional Context

Regional Comprehensive University was established in the early part of the 20th century as a state Normal School and is a public, four-year, Master's level I institution located in a town of approximately 15,000-20,000 residents in the western part its state. It is governed by an eleven member Board of Regents (BOR), comprised of eight members appointed by the governor as well as three members selected at the institution level who represent faculty, staff, and students. According to RCU BOR documents, the expressed vision, established by the Board of Regents is, "To build on our reputation as one of the best student-centered, comprehensive universities in the nation." According to its mission and statement of purpose, "Regional Comprehensive University serves as a nationally recognized residential comprehensive university, with a strong extended campus and online presence, offering high-quality baccalaureate and master's degree programs." Among the academic programs expressed within the mission are those in the arts and sciences, agriculture, business, health and human services, teacher education, communications, engineering, and applied technologies. Core values embraced by the institution are the application of teaching, research, and service to "promote economic development and the well-being of the citizens of [the state] and the region."

RCU identified three strategies intended to serve as guiding principles for its academic programming: the fostering of academic excellence; creation of supportive and collaborative campus, regional, and international communities; and building partnerships with PK-12 education, business and economic development, and public health. According to university officials, an important value held by the BOR is to deliver its academic programming to a “traditional” college student population in a residential setting. As such it aspires to compete more directly with the large public colleges within its five-state footprint of its home state (State 1), State 2, State 3, State 4, and State 5. Full-time equivalent undergraduate enrollment in fall of 2010 was 8,429. Of first-year RCU students 68% are State 1 residents.

According to college applicant data provided by the institution, RCU draws 58.4% of its applicants from its home state. Thirty-six percent of applicants live within a 60 mile radius of the institution. Census and population trends suggest that the 15-24 year-old population will increase only modestly over the next 15 years within the 18-county service area. Between the year 2000 and 2005, the population within this age group will increase only modestly, by just over 5,000 residents in the eighteen-county area. Between 2010 and 2015 the anticipated population increase within this population will be under 1000 individuals. Furthermore, population projections suggest the number of individuals within the 15-19 year range will drop, both within these regions and statewide (Kentucky Data Center, 2009).

Problem Statement

According to Integrated Post Secondary Date System data, RCU holds the highest retention rate of all comprehensive regional colleges in State 1, and the second highest retention rate among all State 1 public post-secondary institutions. US News and World Report consistently ranks the school as a top regional college. Yet, in 2008-09, it ranks sixth of eight public four-year institutions in the state in terms of undergraduate enrollment. Even with a smaller base, RCU’s growth from 2000 to 2008 has not kept pace with the larger institutions within the state (Kentucky Council on Postsecondary Education, 2009). Over the past three years, RCU has generated growth in the number of traditional undergraduate first year student applications submitted. However, with the exception of a slight increase in fall 2008, the new first year student enrollment rates have remained relatively steady since fall of 2004. Given the anticipated drop in the population of high school age students in the RCU region, and the institution’s focus on increasing its traditional, residential college student population, it must not only continue to recruit a high rate of high school applicants, it must also net a higher yield rate (defined as the percent of admitted students who actually enroll) of new freshman enrollees from this population.

In a period of increasing competition from all types of institutions – public, private nonprofit, and for-profit - RCU has found it difficult to differentiate itself as a college choice in spite of consistently high institutional rankings and lower tuition costs than many competitor institutions and other state institutions. According to one university official, the RCU Board perceives this problem as one of “commodity” vs. “brand name” is a clear recognition that the

university is “stuck in the middle” of Porter’s (1998) competitive advantage matrix between differentiation based on unique competitive advantage and cost leadership; defined by Porter (1998) as “a situation in which the firm sets out to become the low-cost producer in its industry”(p.12); and in this instance, defined as the low-tuition provider in the higher education sector. This situation is further exacerbated by lack of institutional control over tuition; policies that are mandated by the Kentucky Council on Postsecondary Education.

A trend particularly salient and a contributor to this problem is the tendency on the part of high school graduates to apply to a number of institutions, “shopping” for the best enrollment conditions, and generally driving yield rates down across both public and private institutions nationally (Noel Levitz, Inc., 2009). These constraints have converged to form a hypercompetitive environment in which the institution must develop innovative ways to generate new enrollments for the target population while also demonstrating patience in implementing the strategic enrollment management (SEM) cycle to ensure that decisions are data-driven and not based on anecdotal evidence (Bontrager, 2004).

Institutional Enrollment Management Goals

RCU seeks to increase its first-time freshman enrollment among the traditional first-time college-going age bracket within the in-state service area and surrounding states. Its initial efforts are focused on improving enrollment management practices to increase its yield rate, which currently stands at 45% according to IPEDS data. To facilitate development and implement a strategic enrollment plan that can improve enrollment yield rates, RCU seeks to:

- Identify potential points of impact in the recruitment-application-enrollment pipeline where contact with prospective students may increase yield
- Define factors that influence students’ decision to attend/not attend RCU
- Measure and monitor prospect coverage rate to improve enrollment management efficiency and effectiveness
- Identify new and sustainable prospect populations

Research Project Goals and Questions

This project served to provide RCU with data and analyses to advance the institution toward its enrollment management goals. The project identified factors relevant to students’ decision to enroll at RCU and triangulating literature review findings alongside quantitative and qualitative data gleaned from RCU applicants. The specific project questions examined in this study included:

Part I: RCU Applicant Enrollment Trends and the Competitive Market

- Where are accepted RCU applicants most likely to enroll in college if they do not enroll at RCU?

Part II: Identification and Findings of Factors Impacting Enrollment Decisions

- What factors may predict the odds that a RCU accepted applicant will decide to enroll at RCU versus at a competing institution?

Part III: Understanding how Institutional Factors Influence the Student Choice Process

- What current enrollment management methods may impact application and application to enrollment yield rates?

The factors that drive students' decisions to apply or enroll at a particular institution fall into three stages: predisposition, search, and choice (Hossler & Gallagher, 1987, Terenzini, Cabrera, and Bernal, 2001; Engberg, 2009; Adams 2005). This analysis will focus on the student choice stage, specifically, factors that impact students' decisions as to where to apply, and after acceptance, their enrollment choice. Attention to factors driving student enrollment and understanding points where an institution can best impact choice is particularly important given public institutions work with limited financial resources at a time of increasing competition for student enrollees. Furthermore, it is essential that institutions be able to identify not only factors and timing that drive enrollment decisions at RCU but also understand the competitive market; i.e., understanding where their accepted applicants actually enroll and the characteristics and factors that drive non-enrollee choice. Part one of this analysis will examine where accepted applicants will most likely enroll, if they do not enroll at RCU, and the characteristics of those institutions. Part II will examine factors that drive enrollment choice, specifically for accepted applicants.

Part I: RCU Applicant Enrollment Trends and the Competitive Market

Question 1: Where are accepted RCU applicants most likely to enroll in college if they do not enroll at RCU?

Understanding where and what type of institutions RCU non-enrolled applicants attend may not only provide an understanding as to what types of institutions attract RCU applicants, but it also provides opportunities for institutional comparisons. Furthermore, yield analysis can provide enrollment data for specific sets of populations. As well, understanding yield and lost admit trends may provide RCU with baseline data. This data may be used as a benchmark to assess enrollment trends. Yield trends can be monitored so that changes can be detected and project teams responsible for the population may more quickly identify and respond to yield losses or take note of practices that may have improved yield rates for certain populations.

This analysis will examine several aspects of the competitor market. First, the analysis will identify RCU's top competitors, i.e., the institutions in which the highest proportion of RCU non-enrolled applicants enrolled. Next, the analysis considered the characteristics of the competitive market exploring the types of institutions (e.g. public, private, four-year, two-year, etc.) and location of institutions. Finally the analysis will consider student trends by reported student characteristics such as family income, ACT score, and county of family residence.

Yield and Lost Admit Analysis

Initial conversations with RCU officials indicated an institutional perception that students accepted at RCU who do not enroll will most likely enroll at one of three institutions, University D, University E and University F. To examine these perceptions and to establish a more precise view of the institution in relation to its competitors the project team created a data set to facilitate a yield and lost admit analysis. Information obtained from the National Student Clearinghouse's (NSC) Student Tracker service on where RCU applicants first attended an institution of higher education was matched to an applicant data set provided by the RCU Office of Enrollment Management. Information from the ACT student Profile section for applicants who submitted ACT scores between January 2008 and April 2010 were also added to the data set to allow for additional comparisons.

The individual names of 5,815 non-RCU enrolled applicants for Fall 2008, 2009, and 2010 were submitted to the NSC Student Tracker service. The NSC returned information on 5,051. The remaining 764 may not have attended any higher education institution or may have attended one that does not submit information to the NSC. Within the information set returned, 76 of these names were unidentified or blocked, and 352 eventually matriculated at RCU as their first entrance into college, resulting in a total information set of 4,623 applicants, representing a minimum of 84.6% of the applicant pool on which we sought information. The data set is somewhat limited in that matriculation cannot be confirmed for approximately 840 students in the data set, if they in fact did so. However, given that NSC reportedly to cover 92% of all higher education enrollments, we can infer that some significant portion of the 764 students for whom

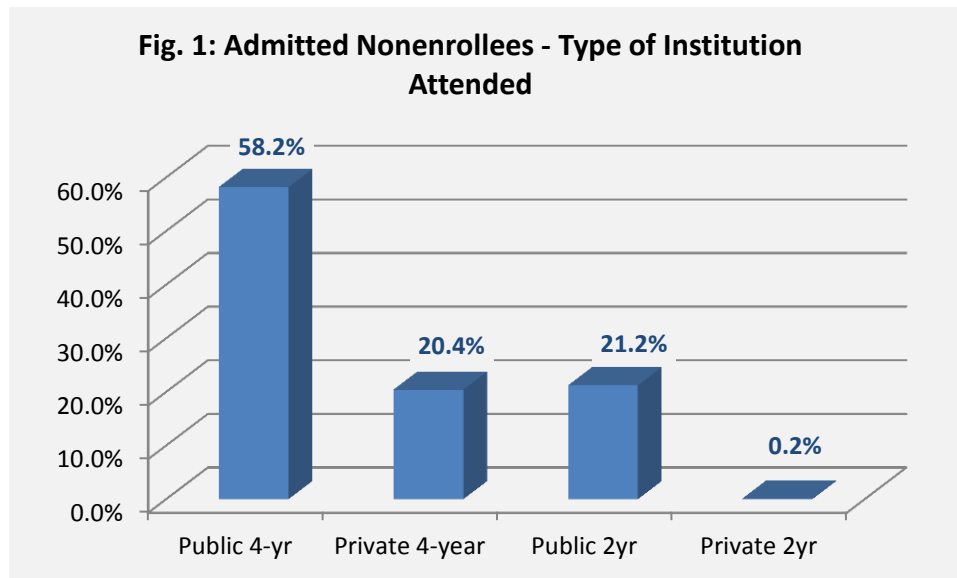
no data was returned did not attend an institution of higher education. Therefore, the returned data set represents a minimum of 84.6% of the original dataset.

The analysis of 10,012 applicants accepted for the 2008-2010 period identified the institutions that enrolled the most RCU applicants as well as compared a demographic profile of applicants who enrolled at RCU as compared to students who did not enroll at RCU. The analysis was performed using *Statistical Package for the Social Sciences* (SPSS). Table 1 illustrates summary findings for the aggregate group along with each application year for which data was available.

Table 1: Characteristics of RCU Accepted Applicants

	Full	2008	2009	2010
N Applicants	10012	3316	3076	3620
% RCU Enrolled	41.1	44.0	44.0	36.0
% White	81.1	81.8	81.8	79.9
% Female	61.3	60.4	62.5	61.1
Mean ACT Composite	22.54	22.53	22.65	22.46

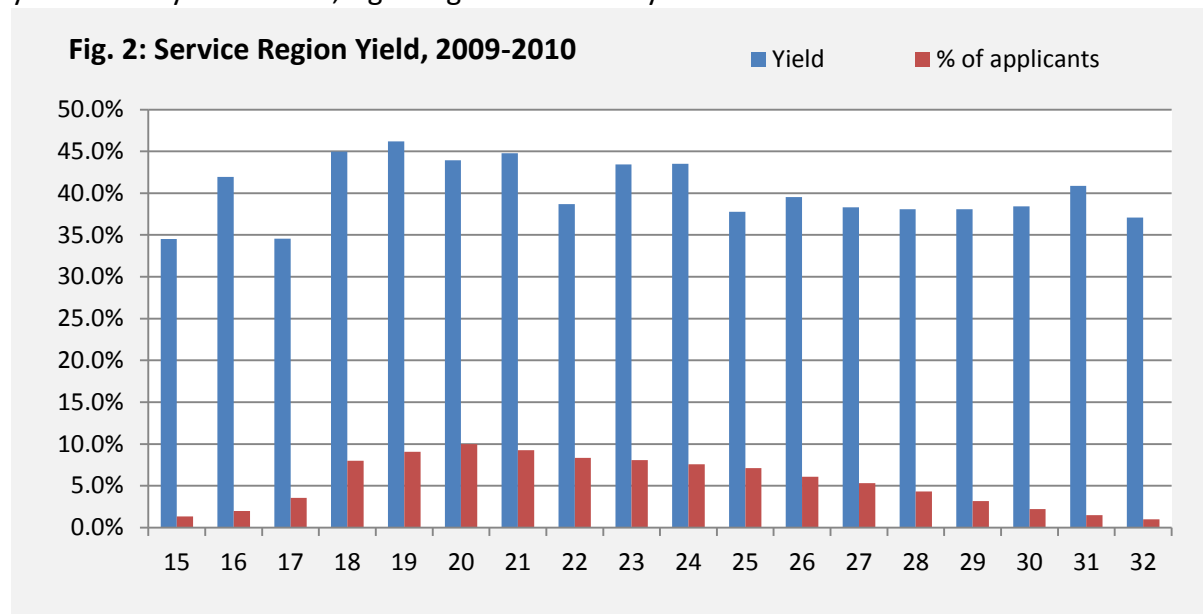
Within this information set, 58.2% attended a four-year public university, 20.4% attended a private four-year institution, and 21.2% attended a public two-year institution (fig. 1). A minute residual of 0.2% attended a private two-year institution.



Of those attending a four-year public university, 47.6% attended an institution State 1, while 52.4% attended outside of the state. Of those attending a private four-year institution, 38.7% attended an institution in State 1, and 62.3% attended an institution in another state; while 63.2% of students attending a two-year public institution did so within the state, with 37.8% attending a public two-year institution in another state. The location of institutions attended by students in each of these categories is summarized in table 2.

Location of Institution	4-year Public	4-Year Private	2-Year Public
State 1	47.63%	51.98%	67.94%
State 2	13.84%	12.77%	16.65%
State 5	13.54%	11.07%	5.14%
State 4	10.88%	11.07%	4.85%
State 3	6.75%	4.75%	1.14%
Other States (#)	7.35% (42)	8.36% (22)	4.28% (21)

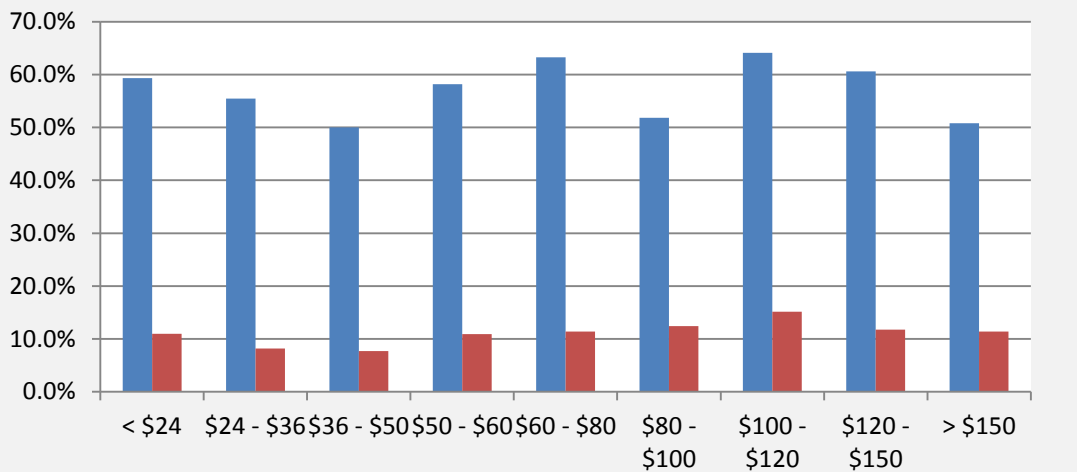
When examined by where RCU ranked as students' choice (using ACT profile data), the yield for students in the service region who selected the institution as their first choice dropped from 76.3% in 2009 to 63.7%. This yield rate is still high compared to the yield rate for non-service region students who selected RCU as their first choice (58%) but represents a negative development. Maintaining data over time will allow for trends to emerge so that university officials can identify issues and take action to mitigate negative trends. We can also pinpoint yield rates by ACT scores, signaling areas for analysis and action.



n = 1229; 63% of applicants in this pool

Yield rates by ACT score (fig. 2) and income level (fig. 3) inform financial aid and award policies and can be used to establish price points for groups of students and establish a baseline for calculating elasticity of demand and tuition discounting models.

Fig. 3: Service Region Yield by income level, 2009-2010



n = 1120; 57.7% of applicants in this pool

These analyses provide a baseline for identifying characteristics of major competitors and establishing policies that allow the institution to pursue applicant segments based on institution attended and create metrics that are sufficiently granular to allow it to react to shifts in geo-demographic, student attainment, financial, and other student variables. Such policies will not just provide information to improve yield rates; they will also allow estimates of academic ability and ability to pay to be matched with financial aid and award policies that increase access to under-served students.

Segmentation of Yield Rates

Yield analysis can be extended to determine strategies that can be applied at the state/region, county, high school, or individual institution level. Yield trends can be monitored so that changes can be identified. Specific strategies can then be developed with the admissions counselor/project team with responsibility for the area in question, and these can be applied at a level of granularity that can impact the decisions of individual students. For example, examining the in-service region yield in contrast to the yield rate for the rest of State 1, we can immediately see that the institution should apply resources to understanding factors that impact the student enrollment decision outside of the service region. We can also identify State 2 as a state with opportunities for growth.

Table 3: Yield Analysis: Service Region vs. State 1

	Yield	% of Applicants	% of enrollments
Service Region (S1-SR)	55.6%	49.4%	60.5%
Non Service Region (NSR)	35.4%	50.6%	39.5%

Yield Analysis: Five-State Region

	Yield	% of Applicants	% of enrollments
Service Region (S1- SR)	55.6%	28.8%	40.9%
Non Service Region (S1-NSR)	35.4%	29.6%	26.7%
State 2	30.2%	11.9%	9.2%
State 3	34.1%	4.6%	4.0%
State 4	29.7%	8.3%	6.3%
State 5	32.1%	10.4%	8.6%
Other	50.3%	35.2%	45.2%
Total	39.1%	100.0%	100.0%

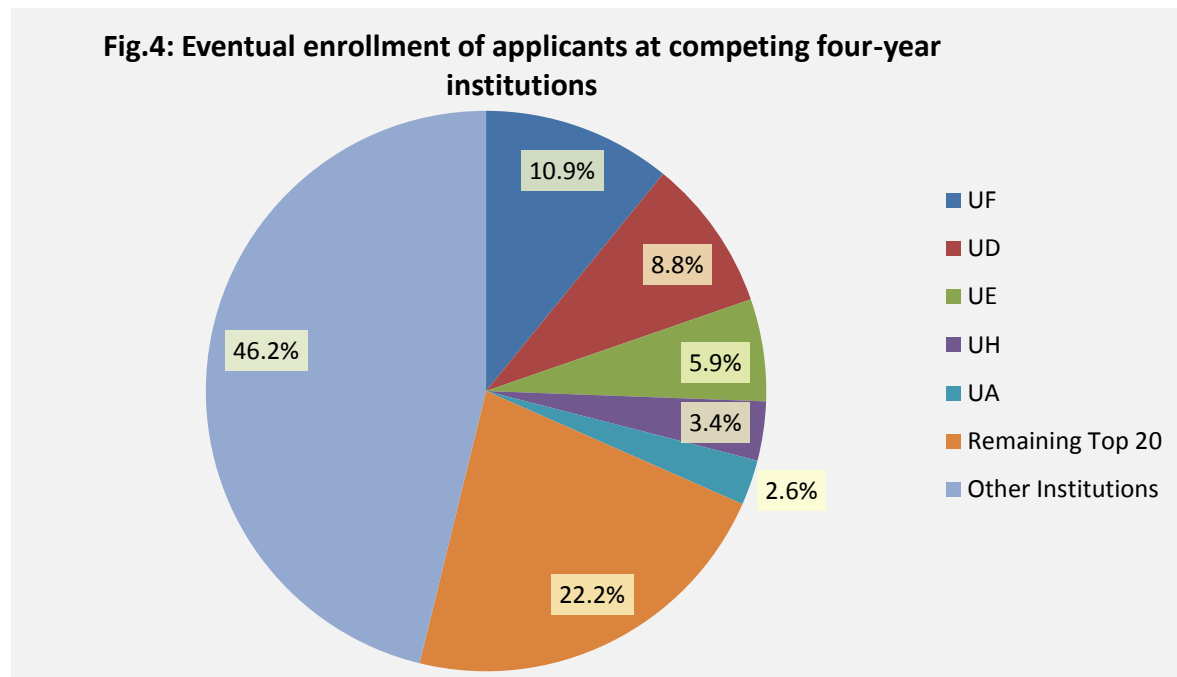
An examination of yield rates by county in the service region illustrates a high level of success in County 3 (Table 4). The yield rate is a very healthy 72.5%, and while approximately 19.5% of in-service region applicants reside in County 3, it contributes almost 25.5% or enrollees. At the other end of the spectrum, we can identify County 4 and County 14 as underperforming counties where the percent of enrollments trails the applicant rates, and yields are significantly below the service county average.

Table 4: Yield Analysis: Service Region by County

	Yield	% of Applicants	% of enrollments
County 1	56.8%	1.53%	1.57%
County 2	48.3%	2.09%	1.82%
County 3	72.5%	19.53%	25.49%
County 4	35.0%	7.45%	4.70%
County 5	66.0%	1.74%	2.07%
County 6	53.4%	2.02%	1.94%
County 7	54.4%	15.18%	14.84%
County 8	43.8%	4.46%	3.51%
County 9	67.9%	1.85%	2.25%
County 10	48.6%	4.87%	4.26%
County 11	58.2%	1.92%	2.00%
County 12	60.3%	2.37%	2.57%
County 13	62.5%	13.27%	14.90%
County 14	47.0%	14.73%	12.46%
County 15	55.9%	3.24%	3.26%
County 16	37.0%	1.88%	1.25%
County 17	33.3%	1.88%	1.13%

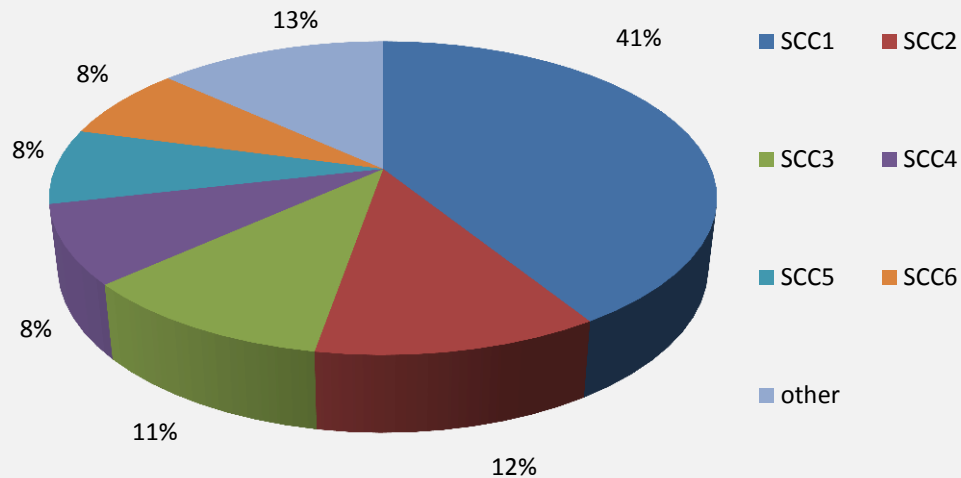
Establishing a Competitive Set Based on Lost Admits

The top 20 competitors identified, based on where applicant eventually attended, included 16 public institutions from State 1 and contiguous states and four private institutions in State 1. These 20 institutions accounted for 70.5% of applicant enrollments in four-year institutions. The remaining 29.5% of applicants enrolled in some 380 additional institutions, none with more than 1% of the total applicant pool. Of those attending a four-year institution, twenty institutions accounted for 54.8% of those enrollments, while the remaining 46.2% were distributed among an additional 380 institutions. University F (UF) accounted for the largest proportion of these non-attendees, with 10.9% of applicants who eventually enrolled in a four-year institution enrolling there. Based on enrollment, the top five competitors for RCU applicants are University F, University D (UD), University E (UE), University H (UH), and University A (UA) (see fig. 4).



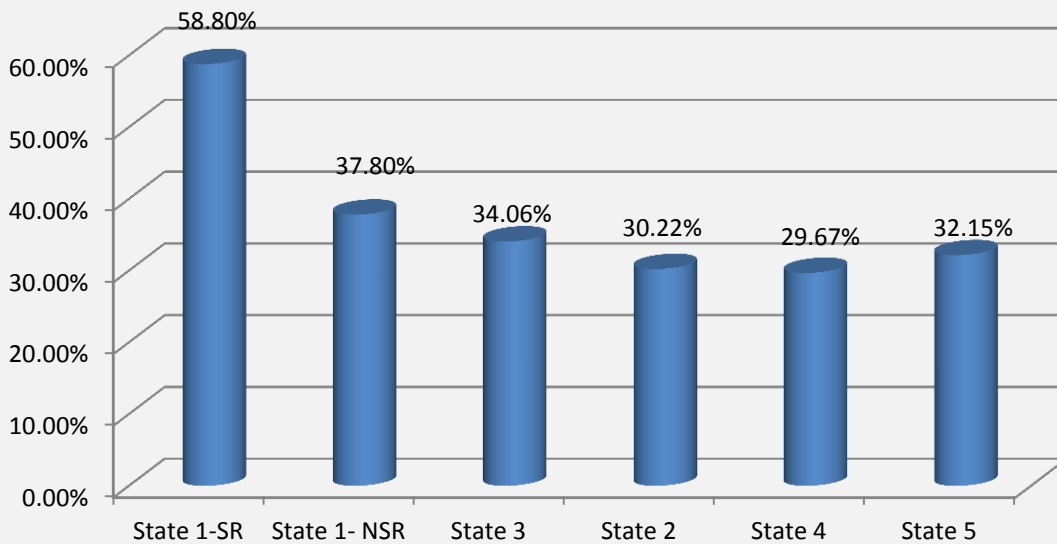
Almost two-thirds (63.2%) of the 21% of RCU applicants who enrolled at a public two-year institution did so at one within the State community college system. A substantial portion of these students (41%) enrolled at State Community College 1 (SCC1) (fig. 5). Of the remaining students who attended a public two-year institution, 16.6% attended an institution in State 2, 6.1% attended one in State 5, 4.8% attended one in State 4, and the remaining 9.3% of students were scattered across 21 states.

Fig. 5: Applicants Accepted to RCU who enrolled at a SCCS Institution (n = 573)

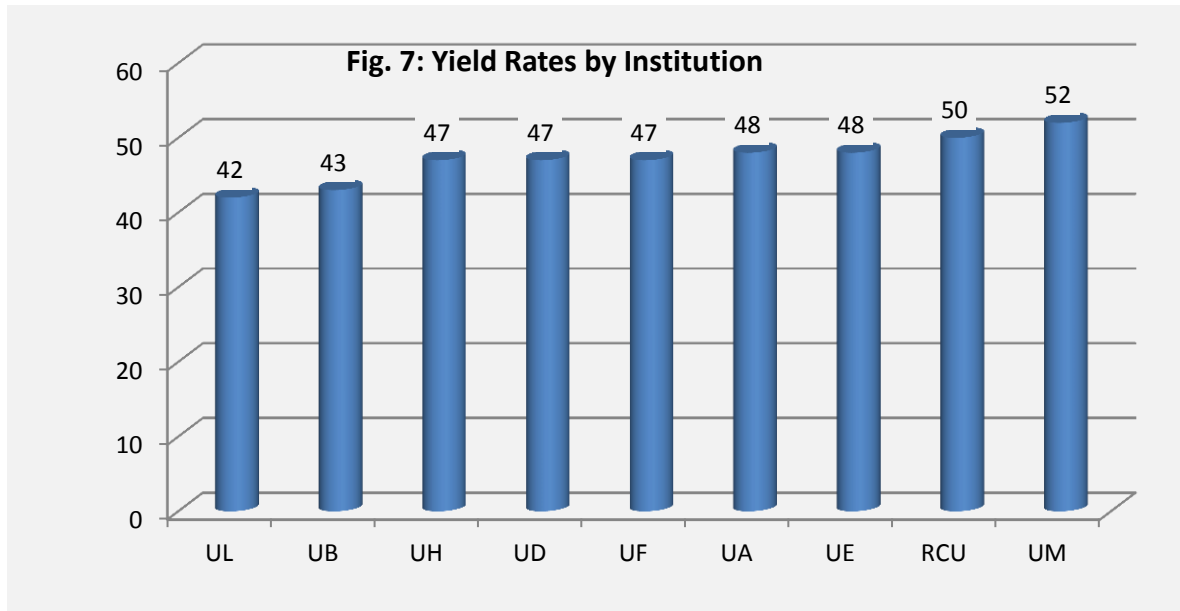


An examination of RCU’s yield rates by region is illustrated in Figure 6. The yield rate is defined as the percent of admitted applicants who proceeded to enroll at RCU. Applications from the five-state region of State 1 (58.1%), State 2 (11.8%), State 4 (8.3%), State 5 (10.4%), and State 3 (4.6%) represent approximately 93% of all applications for fall enrollment over the 2008-2010 period. Yield rates across these states are comparable, while – not surprisingly – yield within RCU’s 18-county service region is significantly higher. The institution’s yield rate from applicants residing in State 1 but outside its service region trails that of its service region substantially.

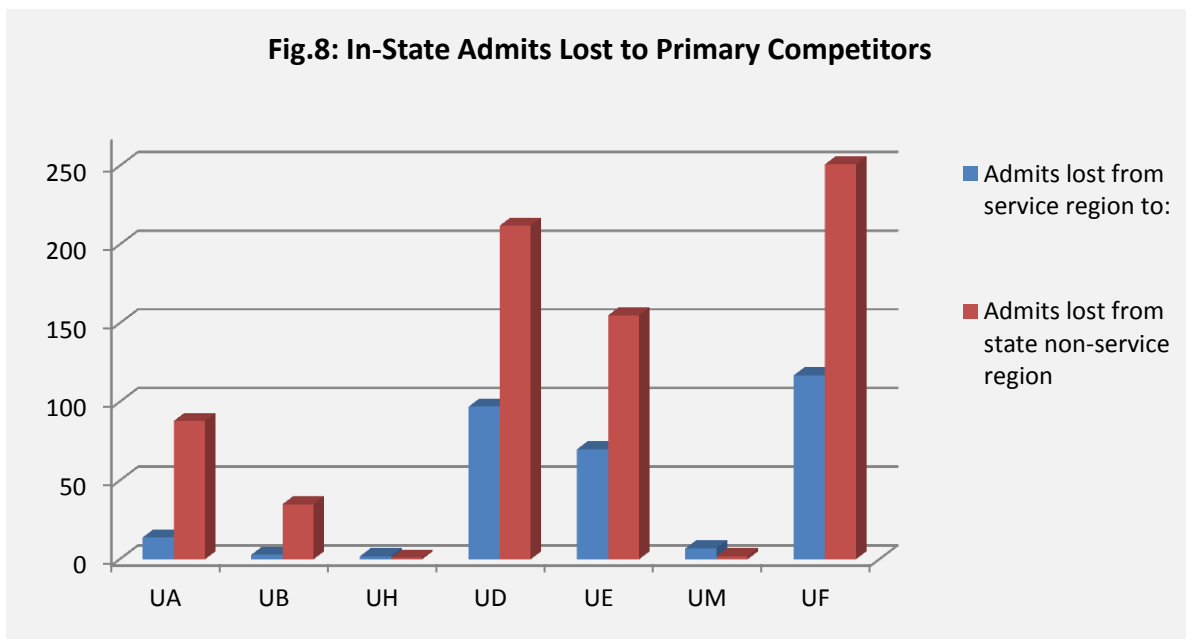
Fig. 6: Yield Rates By Region



Reported yield rates by Institution place RCU at the upper end of the group, with University of M (UM) being the only institution in the competitor group reporting a higher yield (fig. 7).



When viewed by institution, admits lost from State 1 cluster around three institutions. 50.1% of this in-state group is lost to University F, the University D, and University E, all institutions identified by the enrollment management staff as major competitors. 85% of students admitted to RCU who elect to attend another institution attend an institution within State 1 (fig. 8.)



Examination of the five-state region from which the institution draws most of its applicants and enrollees provides a further level of granularity for strategic decision making. Table 5 illustrates enrollment choice for RCU applicants disaggregated by state of residence of these applicants.

Table 5: Institution Enrollment Choice for RCU Applicants by State of Residence

From state/To school	UA	UB	UH	UD	UE	UM	UL	UF	Total
State 2			52	5	1	3		3	72
State 3	1	2		1	3		1	14	30
State 1	102	38	3	309	225	9		368	1321
State 4			77	2				2	97
State 5		1	3	1	3	83	34	15	168
Total	105	41	135	319	232	95	35	403	1692

Not surprisingly, many admits tend to gravitate toward the major competitor institution within that state. However, there is a substantial portion of applicants based in State 2 who select University H over RCU. Similarly, a cadre of State 5-based applicants opted to attend University F over RCU. It may be fruitful to drill down into these populations to identify factors that may be important in these selections.

Lost Admits in Relation to Posited Factors in Enrollment Choice

The top competitors to RCU were analyzed along dimensions that roughly corresponded to factors identified as important to the enrollment decision along with additional institutional characteristics using IPEDS data. These factors (described in the conceptual framework presented in part two) were:

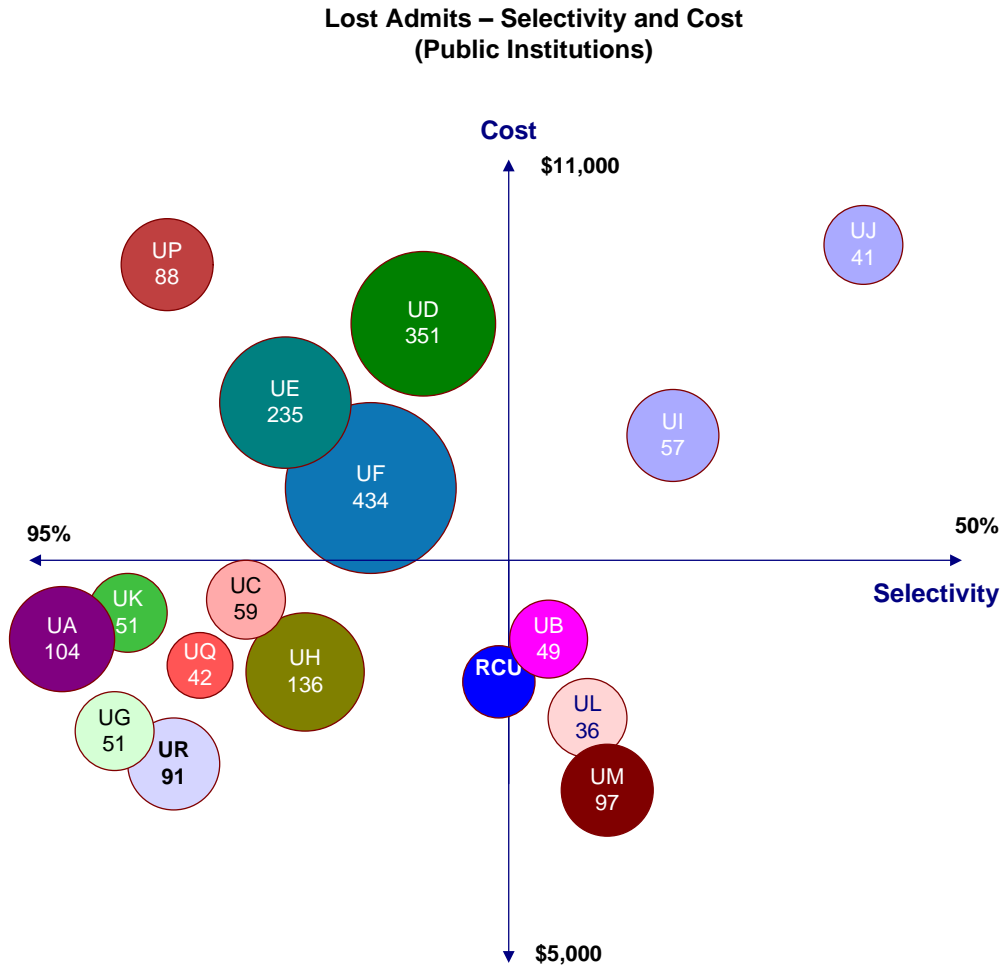
- Cost (published tuition)
- Selectivity (Admission rates)
- Financial constraint (average amount of aid as a percentage of published tuition)
- Student Achievement (ACT 75th percentile score of the institution)
- Pricing and tuition
- Financial Aid
- Institutional Characteristics

This information provides an initial picture of how RCU compares to competitors within its market and will be applied to later analyses in drawing conclusions as to how RCU may differentiate itself and leverage its unique composition: a university with high quality and highly regarded academic programming that also offers students, given its campus size and environment, an opportunity to individuate and more easily access experiences within and beyond the classroom and across international borders. All Institutional data was collect from the Integrated Post Secondary Data System (IPEDS) for academic year 2008/2009.

Institutional Positioning Using lost Admits

Selectivity is intimately tied to the reputation of a college or university (Meredith, 2004). While we by no means extend this established maxim to the band of selectivity within which RCU's competitive set operates, we can impute some relationship between admission rates and the general reputation of the institution (Meredith, 2004). Using these two measures, a selectivity-cost map (fig. 9) based on lost admits was created to help categorize the competitive set.

Fig. 9: Admits lost by cost (published in-state tuition) and selectivity (percent admitted)



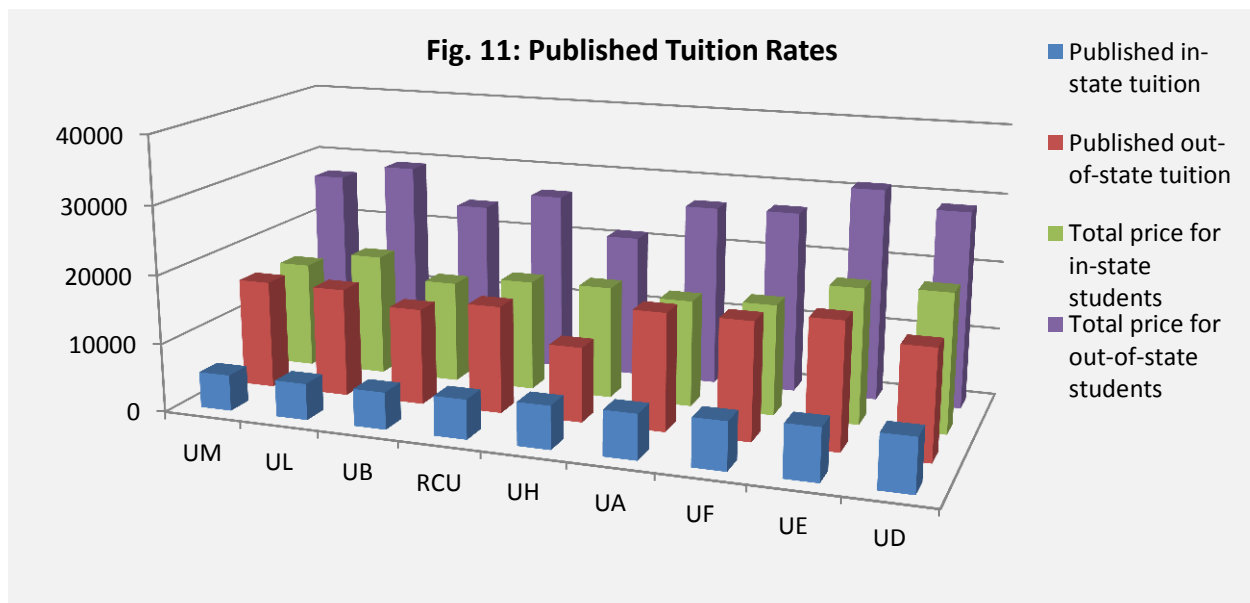
Selectivity: Percent of all applicants admitted
Cost: Published tuition

Source: IPEDS Data Center

Two factors are immediately apparent: (a) RCU is not as closely aligned with the institutions to which it loses most admits as it is with other institutions in the competitive set; and (b) RCU is both cheaper and marginally more selective than the bulk of institutions in this competitive set. This information provides some basis for decisions concerning competitive positioning; potential changes in positioning that may be feasible based on proximity to core competitor groups, and a broad view of institutional characteristics that must be adjusted to change competitive position. Further analysis of price, financial aid, and individual institution characteristics provides additional detail on RCU’s position in relation to its competitors on key financial variables.

Pricing and Expenses

RCU is in the mid-range of competing institutions in terms of published tuition and total price (fig. 11). It is interesting to note differences in published tuition and estimates of total cost. Overall, RCU’s rates are competitive within this mix of institutions, falling in the middle on measures of tuition and total cost for in-state students. While University H has a higher in-state tuition rate and total cost, it is ultra-competitive in out-of-state tuition cost, which is a full 40% below the average for this group.



RCU garners a greater percentage of its core revenues from both tuition and fees and state appropriations than most of its competitor (Table 6), which may impact its ability to raise revenue or discount tuition in the event of any proration or reduction in state funding in the near future. A tighter funding environment necessitates increased efficiency in recruitment practices if RCU want to maintain its core expense percentages and increase recruitment efforts to drive up enrollment yield rates since these types of recruitment practices, which will focus on the applicant-to-enrolled segment of the enrollment funnel, are by nature more costly than increasing the prospect pool.

Table 6: Revenues and Expenses for Peer Institutions

Institution	Core Revenues		Core Expenses		
	% Tuition and fees	% State appropriations	% Instruction	% Academic support	% Student service
University D	21	33	22	9	2
University B	22	33	36	11	10
University A	25	30	34	8	7
University M	26	36	39	8	10
University E	26	29	33	11	3
University L	30	32	36	7	13
RCU	33	35	40	6	10
University F	35	29	34	7	10
University H	38	34	35	8	10

Financial Aid

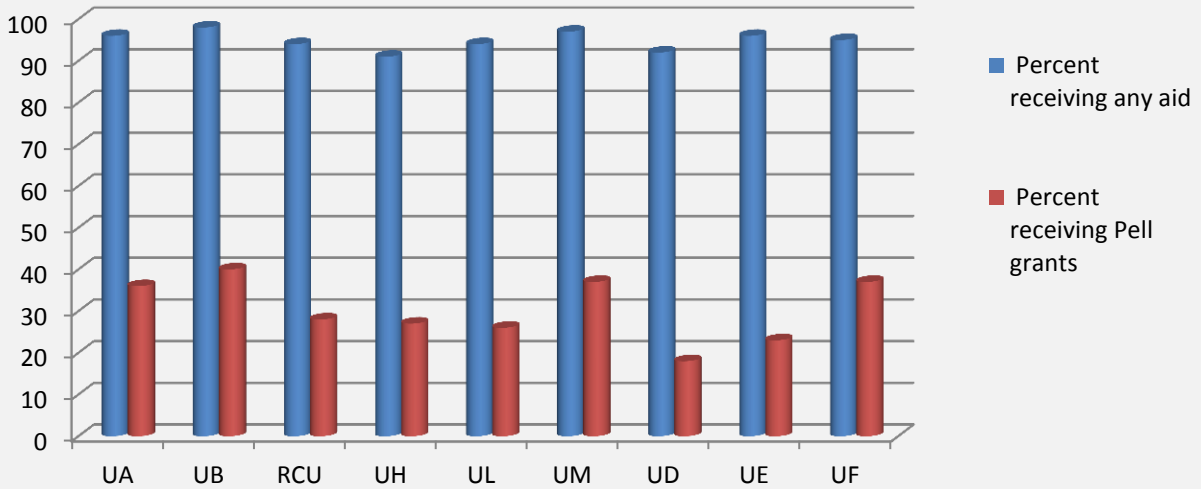
A larger percent of RCU undergraduate students receive federal, state, local, or institutional grant aid than all but two of the institutions in the primary competitor set (Table 7). The amount of the award is in the mid-range of the group.

Table 7: Federal Aid

	Federal state local or institutional grant aid	
	% Receiving Aid	Average Award
University A	89	\$5,785
University B	93	\$6,641
RCU	93	\$7,155
University H	86	\$5,822
University M	89	\$7,334
University L	96	\$7,216
University D	87	\$5,797
University E	92	\$6,755
University F	89	\$5,565

Full-time First-time undergraduate students seek and receive aid at very high rates (fig. 12) at all institutions in the competitor set, with an average of 90% of this student set receiving aid.

Fig 12: First-time undergraduates receiving financial aid



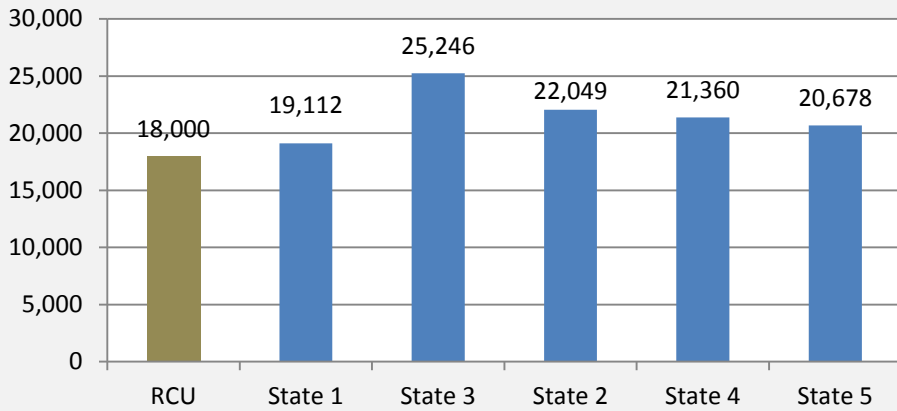
It is interesting to note that although institutional grant aid awards is relatively high at RCU, the amount of federal student loan and “other student loan” amounts required by RCU students is significantly less than these competitor institutions (Table 8). RCU is a low-cost option, but positioning oneself as a low-cost competitor has distinct drawbacks. An alternative could be to communicate the school as a “low-debt” option, and attempt to educate applicants and their parents on what that means over the course of four years of enrollment.

Table 8: Student Aid at RCU and Competing Institutions

	Institutional Grant aid		Federal Student Loans		Average amount of other student loan aid
	% first-time undergraduates receiving	Average amount	% of full-time first-time undergraduates receiving	Average amount	
University A	50	4567	53	4937	8187
University B	48	6185	52	4675	7435
RCU	65	6253	51	5175	3649
University H	76	3687	50	4853	6154
University L	27	4491	39	4986	7547
University M	56	2492	47	4607	5973
University D	48	5731	43	4980	11317
University E	48	7300	40	4425	10368
University F	27	5873	52	5751	6125

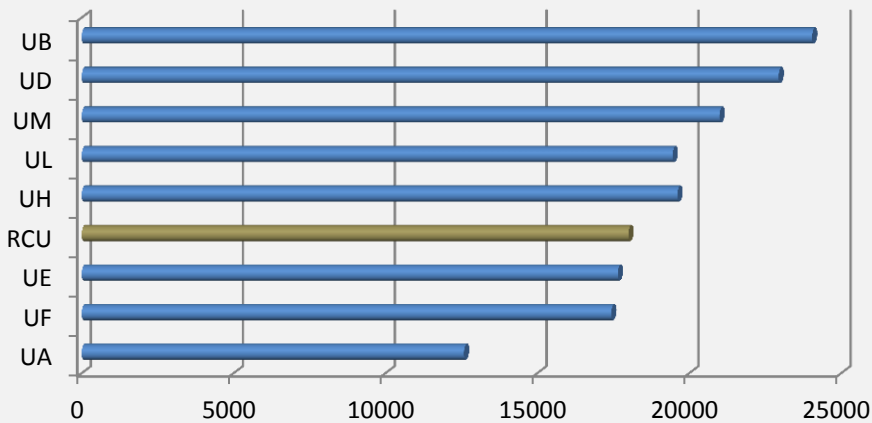
Based on data for the 2008-2009 academic year derived from the Institute for College Access and Success, the average RCU graduate accumulates a level of debt below the average for all State 1 institutions and also the averages of surrounding states (fig.13).

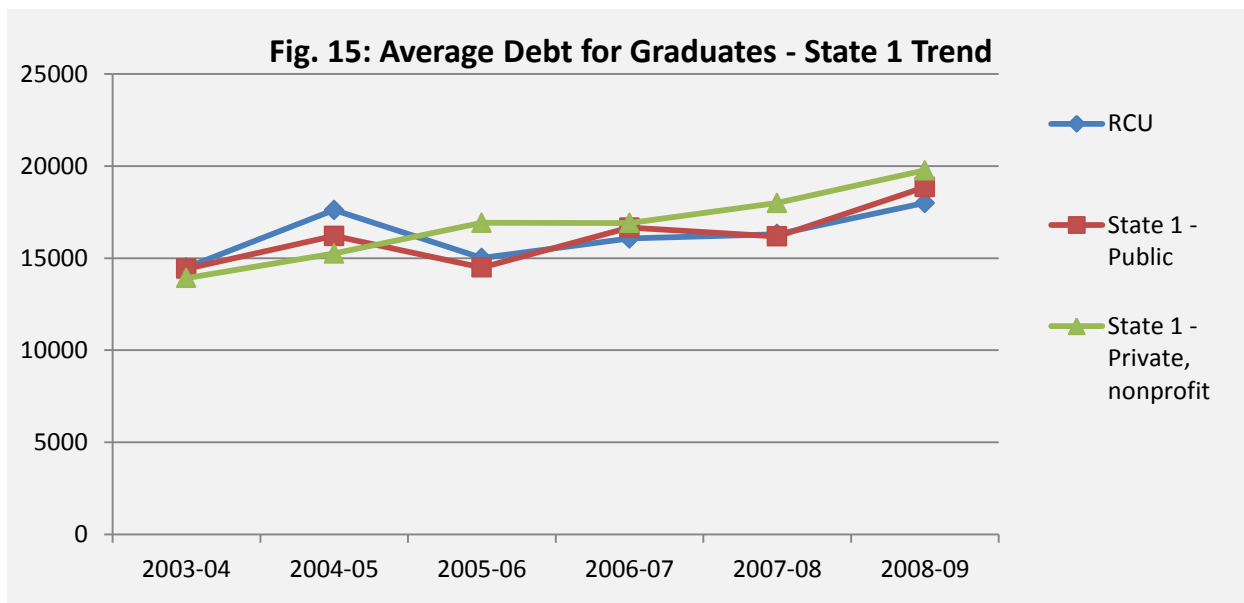
Fig. 13: Average Debt of Graduates by State



This graduate debt level is fourth lowest among the eight institutions we have examined in its competitive set (fig. 14), and although the average debt level has been rising since 2003 it has remained at or below the state average for both public and private institutions during that period (fig. 15).

Fig. 14: Average debt of Graduates - Primary Competitor Set





The average RCU graduate’s debt load is fourth of the eight public institutions in the state and is lower than all but four of the private institutions in the state. This may present the institution with an opportunity to position and market itself as a low-debt alternative; although care must be taken as two significant in-state competitors (University E and University F) exhibit similar debt levels and in fact had a slightly lower debt load for graduates in the 2008-2009 year (fig. 15). The institution may consider maintaining this position in an effort to frame itself as a solid choice for an increasingly debt-conscious college-going population.

Institutional Characteristics

Table 9 illustrates how RCU compares to the top six competing institutions (based on number of admitted students lost to each institution), data regarding leading degree programs, student demographics, application to enrollment yields, and student achievement.

Table 9: IPEDS Applicant, Enrollment and Institutional Characteristics

	RCU	UH	UD	UE	SCC1	UF
Undergraduate Enrollment	8,242	9,530	19,186	15,477	7,464	17,645
New Freshmen	1,391	1,804	4,153*	2,478	714	1760
As a percent of total enrollment	16.88%	18.93%	21.65%	16.01%	9.57%	10.00%
Applicants	3,072	4,165	12,195*	7,861	NA	7,409
Applicants Admitted	2,629	3,835	8,966*	5,473	NA	6,976
Applicants Enrolled	1,311	1,805	4,153*	2,609	NA	3,303
Enrollment Yield	50%	47%	46%*	48%	NA	47%
% Students of Color (domestic)**	NA	20%	15%	21%	NA	17%
New Transfers	579	611	1,034	1,080	176	980
As a percent of total enrollment	7.02%	6.41%	5.39%	6.98%	2.36%	5.55%
Composite ACT Score Range	NA	20-25	22-28	21-28*	NA	18-24*
Degree Programs w/ highest % Grads	Education*	Educ. *	Psychology	Comm. & Media	Health*	Business Mgt/Mrktng
	Business	Business	Biology	Psychology	Info. Tech.	Education
	Health	Health	Accounting	Business Admin.		Communi-cations
	Communi-cations	Communi-cations	Marketing	Nursing		Social Sci.
	Engineering	Park & Rec	Finance	Criminal Justice		Health and Clinical Sci.

Sources: IPEDS 2008/09, U.S. Department of Education *Voluntary System of Accountability (VSA), The College Portrait **Information not available from IPEDS.

It is important to note that while RCU’s yield of 50% among its top competitors is better than the overall yield of 45%, it also exceeds the yield rate reported by the institution to the project team (45%), which in turn is higher than the eventual enrolled percent in the data set used in this analysis. The discrepancy is likely attributed to a different base used for reporting purposes.

IPEDs and VSA give full name of VSA data indicate that RCU holds similar characteristics to several other institutions with whom they compete. For example, enrollment yield rates, as reflected by these data, are relatively similar across institutions. In addition, with the exception of Engineering, the RCU academic programs with the highest number of degrees confirmed match those in the top five categories of its competitors. An interesting finding is that RCU’s admissions category of new transfer student represents a higher percentage of its total enrollments than for any of its competitors. Given anticipated drop in traditional age student populations and the finding that RCU loses a significant number of accepted applicants to the State community college system, new transfers may emerge as a population for enrollment growth opportunity.

Summary of Findings Related to Question #1

This competitive environment and yield analysis provides a significant first step in increasing both efficiency and access, and when tied to information on pricing, net revenue analysis, student demand, and capacity greatly improves enrollment management effectiveness. The analysis establishes several key points:

- University D, University E, and University F are the three major four-year competitors for RCU's applicants within State 1. University A and University B also account for a substantial number of applicants and beyond state lines, University H and Universities K, L, and M figure also. Although this analysis focuses on the public sector, private institutions within State 1 also enroll a substantial percentage of students who are in the RCU Applicant pool and these institutions should be examined as part of an additional analysis.
- A significant proportion of applicants enroll in the State community college system (SCCS) system, and a large proportion of those enroll at State Community College 1 (SCC1). Further analysis of this group could supply information on developing partnerships with these institutions to increase transfers enrolled from this applicant segment.
- Yield rate within the service region is 55% higher than the yield rate for State 1 applicants outside of the service region; it is also much greater than yield rates from surrounding states. A decision must be made as to whether the institution has optimized yield from this region and should concentrate resources elsewhere, or if there is an opportunity to increase its penetration of the service region. Additional detailed yield analysis will allow the institution to segment its applicant pool and more effectively target small groups for contact, marketing, and other recruitment activities.
- When compared to its primary competitor group, State 1, and surrounding states, RCU emerges as a relatively low-debt option and could position itself as such to an increasingly cost-conscious market by emphasizing the accumulated level of debt that typical graduates incur at the institution. As noted, a considerable amount of care must be taken with this positioning effort due to the debt positions of close competitors.
- The majority (85%) of applicants from State 1 are lost to other in-state schools, while the majority of applicants from the surrounding states in its target region eventually enroll in a school within that state. This unsurprising result is likely to be largely explained by proximity of institutions and state policies designed to attract and keep students in their home state. This analysis suggests that efforts to increase enrollment of out-of-state students must be conducted at the margins, and therefore should involve careful and detailed segmentation to maximize their efficiency and effectiveness.

A firm understanding of the institution's competitive landscape provides a set of benchmarks against which decisions concerning positioning, resource allocation, and enrollment management goals can be made. Specific information on factors that affect applicants' enrollment decision will allow the institution to align recruiting practices, tuition, and financial aid policies with its external environment to optimize yield. A set of important factors are examined in part II.

Part II: Identification and Findings of Factors Impacting Enrollment Decisions

Project Question 2: What factors may predict the odds that an accepted applicant will decide to enroll at RCU versus at a competing institution?

The previous analysis identified what institutions RCU non-enrolled applicants will most likely attend; examining all RCU accepted applicants as well as those applicants from the 18-county service area. The second portion of this analysis will consider what student characteristics and institutional characteristics may impact student enrollment decision for students who applied and were accepted at RCU. Drawing from the pool of 2008, 2009, and 2010 accepted RCU applicants, a logistical regression analyses was conducted to identify factors that may significantly predict the odds of an RCU applicant enrolling at the institution. Using enrollment at RCU as the binary dependent variable, six separate logistical regression analyses examined the likelihood that an applicant will:

1. Enroll at RCU versus any other institution of higher education for each year of data;
2. Enroll at RCU versus any other institution of higher education for 2010;
3. Enroll at RCU versus any of its top five competitors for all three years;
4. Enroll at RCU versus each of its top three competitors for all three years;
5. Enroll at RCU versus the State Community College system and State Community College 1 for all three years;
6. Enroll at RCU versus any other institution given that the applicant resides within the institution's 18-county service region for all data.

The study employed a mixed-method quantitative and qualitative study design to better comprehend the reasoning behind student choice decisions. Findings will first be reported on the quantitative analyses. Qualitative data will be analyzed and incorporated into the findings.

Quantitative data sources included:

RCU application form data for approximately 10,000 student applicants accepted to RCU in the years 2008, 2009, and 2010. The data was compiled and provided by the RCU Office of Enrollment Management. Independent variables identified in extant literature, as described in the conceptual framework that follows, that were drawn from this data set included student composite ACT score, number of student contacts with the institution, proximity of students' home zip-code to RCU, ethnicity, and gender. The dataset also contained the dependent variable of student enrollment decision. Complete data on number of student contacts was provided for years 2008 and 2010. RCU staff members recognized that data on these variables for 2009 applicants was limited due to a transition to a new student information system but the variable was maintained in the regression analysis to provide consistency cross the three years analyzed.

National Student Clearinghouse student enrollment data for all student applicants who were accepted to RCU in years 2008, 2009, 2010. This data was matched to the RCU applicant data by student name and date of birth and identified the name, level, and type of institution at which the applicant first enrolled.

ACT profile questionnaire administered by the College Board for years 2009 and 2010. These data were matched to the RCU applicant data by student id numbers. The ACT College Board Student Information Questionnaires contains a number of data points. Independent variables drawn from this data set included high school GPA and student perceptions of financial constraints measured by whether or not the applicant applied for financial aid, reported family income, and whether or not the applicant intended to work while attending college.

Qualitative data was collected through face-to-face interviews with RCU student applicants who enrolled at RCU (n=10); face-to-face interview with RCU student applicants who enrolled at another public university within the RCU region (n=12); and RCU staff from recruitment, admissions, and enrollment management (n=12). Employing a qualitative approach to this study is useful to better explore and interpret relationships between quantitative factors (Peshkin, 1993). Interpretation may, in turn, provide insights practitioners can use to develop institutional strategies. Interview protocols may be found in Appendix B.

Conceptual Framework of Student Enrollment Factors and Measurement Instruments

We examined the predictive value of five constructs in influencing student enrollment choice, student demographics, student achievement, student contact with the institution, financial constraints, and student certainty of their academic identity. The literature that guided the selection of these factors is identified in construct explanations.

Student Demographics

Applicant enrollment and attendance at an institution of higher education may be dependent on the proximity of their permanent residence to the institution (DesJardins, Dundar, and Hendel, 1999; Leppel, 1993; Long, 2004). Therefore, a measure of student proximity to RCU was created utilizing zip code information collected on the RCU student application. Proximity was measured by creating a log of the distance between RCU Zip code and the zip code of the applicant's permanent home address. This calculation was made using an excel tool called Zipoid¹ that determines straight-line distance between two zip codes. Summary statistics from the entire data set for this and other variables used are presented in table 10.

¹ Details on the Zipoid tool can be found at <http://www.freezipcode.com/>

Table 10: Summary Statistics: Full Data Set

Predictor	Description	Mean	Std. Dev
ZipDistance	Distance between zipcode of RCU and home address of applicant	149.41	393.871
ACTComposite Highscore	Applicant's composite ACT score	22.54	4.088
Gender2	Applicant gender: female = 1, male = 0	0.6145	0.48674
Ethnicity_ethnic	Applicant ethnicity: Ethnicity other than non-Hispanic white = 1; white = 0	0.1895	0.39189
Apply_Finaid	Applicant applied for financial aid = 1; applicant did not apply for financial aid - 0	0.84	0.362
Familyincome	Family income level (see appendix C for brackets)	5.87	2.525
sureofmajor	How sure respondent is about current choice of college major (1 - I am very sure; 2 - I am fairly sure; 3 - I am not sure)	1.85	0.756
sureofoccupation	How sure respondent is about first occupational choice (How sure respondent is about first occupational choice)	1.96	0.755
OffCampusContact2	Contact between University employee and student in an on-campus setting (specific contact types are identified in appendix C)	0.4166	0.67987
OnCampusContact2	Contact between University employee and student in an off-campus setting	0.2612	0.4766
work2	Applicant plans to work while in college: Yes = 1; No = 0	0.7735	0.4186
HSGPA	Applicant's High school grade point average (self-reported)	3.3243	0.56546

Student choice may also be impacted by a student's socio-economic background and race or ethnicity. Students of lower socio economic backgrounds are more likely enroll in a community college than a baccalaureate institution and less likely to complete, than more economically advantaged students (Cabrera, 2003). The mechanism by which race may impact student enrollment is twofold. First, students of color may be less likely to receive information critical to enrollment choice. Students may hold misperceptions about college, including admission and financial aid procedures, and the true cost of college Long and Riley (2007) identify cost, the complexity of the financial aid and application process, and academic preparedness as critical barriers that low-income and minority students must overcome to enroll in college. Furthermore, students' perceptions of campus climate and openness to diversity may impact institutional commitment and choice (Kuh, 2001). Therefore, it may be that race serves a predictor, in particular for enrollment at an institution that has a higher number of students of color. In this analysis, because the applicant pool did not contain sufficient numbers of cases for each racial/ethnic group, race was measured by creating a dichotomous dummy variable using student self-identification of race as reported on the RCU application. The two groups included students identifying themselves as white, but not of Hispanic origin, and students who identified themselves as non-white or white and of Hispanic origin.

Student Achievement

Student pre-college academic achievement may be linked to institutional choice. Bowen, Kurtzweil and Tobin (2005) posit an increasing gap between high school preparation and college point-of-departure requirements. They suggest high school education performance has fallen relative to the student academic competencies required of an incoming college freshman. Venezia, Kirst, and Antonio (2005) provide support for this assertion. A six-state study, derived from Stanford's Bridge report, found 40% of students at four-year institutions and 63% at community college require remedial coursework upon entry. Further, there was a significant gap between academic high school graduation requirements and the college entry requirements of university systems in those states (Venezia et al., 2005). Therefore, students who score lower the ACT may be more likely to be admitted at a less exclusive institution. Very low performing students may be most likely to select an institution that offers remedial coursework or that they perceive to incorporate a less rigorous curricula. In this analysis, student achievement is measured by ACT score and student reported high school grade point average.

Student Contact

Contact with students may impact student enrollment in a number of ways. First, pre-application contact, provided in the student search phase of the enrollment decision phase may increase student awareness about the university as well as financial and academic requirements. Second, contact with students at both the pre-application and post-application phase may serve to build social capital for the student through creation of a student-staff relationship. Social capital is commonly understood as a mechanism of social support that enables an individual to accomplish tasks that the individual may not have been able to do without the social influence and assistance of another party (Coleman, 1984). The case of the student applicant process, the development of a positive student – admissions counselor or other staff relationship may offer the student comfort in that they have built a rapport with a key campus individual, and thereby increase the students the social and cultural capital available to him/her. The mechanism of social capital may be linked to the degree a student perceives they can socially integrate into an institution of higher education. Students who reported higher levels of campus social support (Nicpon, Huser, Blanks, Sollenberger, Befort, and Kurpius, 2006) or more extensive social networks (Thomas, 2000) were more likely to persist than students who report low levels of social support on campus.

Quantitatively, student contact with RCU was measured both in terms of on-campus contact and off-campus contact (see table 10). Off campus contact included high school visits, dessert receptions, and a recruitment event specifically related with African American enrollment. The measure was created by aggregating the total number of contact occurrences recorded per each applicant. On campus contacts were measured by aggregating occurrences of on campus visits which included campus tours and open house visits at events such as "Racer Day". In the qualitative interview students were asked "When did you first hear about RCU" and were probed to identify what types of contact the student had with the institution and their perceptions of the experience, specifically their perceived quality of the interaction.

The qualitative interview also assessed the degree to which student had access to resources and social capital through a series of questions that probed to identify family background, college attendance, and student comprehension of admissions and financial aid procedures. Seven questions assessed the level of support a student had in the college selection process. These question also served to assess the degree a student was influenced by both RCU and non-RCU staff. Questions included:

- What inspired you to go to college? (e.g. family, peers, teachers, etc.)
- Has anyone in your family pursued education beyond high school?
- What aspects of your family life have prepared you for your current academic life? Illustrative example?
- Did you understand all of the admission requirements for each institution to which you applied? Did anyone help you to interpret these requirements?
- What are your parents' expectations for you with respect to college? Are they supportive of your efforts and aspirations?
- Did any of your high school teachers influence your decision on college attendance? If so, to what extent?
- Did your high school guidance counselor influence your decision on college attendance? If so, to what extent?

Financial Constraints

Student and family perceptions of affordability can play a significant role in students' initial college-going decision. Low-SES students are particularly concerned about tuition and availability of financial aid (Terenzini, Cabrera, & Bernal, 2001.) Often there is a disconnect found between actual and perceived postsecondary education costs, and between available information and actual awareness concerning financial assistance to help cover those costs (Venezia et al., 2005; Perna, 2006; De La Rosa, 2006; Brint, 2007). Furthermore, individuals in lower income quartiles are more likely to overestimate costs, less likely to receive information on potential sources of funding, and less likely to apply for funding than those in higher income quartiles (Venezia et al., 2005). De La Rosa (2006) found misperceptions on the part of low-income students concerning financial assistance restrict application and attendance. Given RCU's position in relation to its primary competitor set, we would expect to find that applicants from low income families may gravitate toward the lowest cost option, the state community college system, while students from higher income brackets may tend to enroll in institutions with higher tuition levels.

In this study student perception of financial constraint was measured quantitatively using three questions from the ACT Student Profile Data. Specifically, this profile asked student to respond yes or no to the following questions: I expect to apply for financial aid to help and I expect to work while attending college. Students were also asked to "estimate the approximate total combined income of your parents before taxes last year". To this question student were asked to identify parent income using a 9 point scale with 1 equating to less than \$24,000 and 9 equating to more than \$150,000. Qualitatively students were asked to about

factors relating college costs, their perception about how cost factored into their enrollment decision, barriers to completing financial aid application forms.

Qualitatively, financial constraint was measured with student response to seven questions that intended to measure the student's knowledge of the financial aid process:

- During the process of applying to college, did you feel like you and your parents had a good understanding of how to apply to college and pay for college?
- Did you receive help with the process of applying to RCU? (Parents, friends, guidance counselor, college staff member) Is this representative of how your friends came to college?
- Did you fill out a FAFSA? Is the FAFSA an easy form to fill out? Did anyone help you fill out the form? How frequently do you meet or contact the Financial Aid office?
- What types of financial aid have you received so far? Did the amount of aid you received match your expectations? Those of your parents?
- How do you plan to pay for college?
- Do you currently have a job? How many hours do you work? Is it on or off campus?
- Is the cost of college a burden on your family?

Certainty of Academic and Occupation Needs and Institutional Quality

Student enrollment choice has long been linked to student perceptions of an institution's quality. What constitutes quality to a college applicant may vary and may often be associated with the potential of an institution to foster social, academic, and vocational development (Braxton, 1990). However, at the enrollment choice stage, students may be less aware of their academic and vocational interests or may be less able to independently understand how a particular institution will meet their academic and occupational needs. This may be especially so for first generation college students. If students are less aware of their occupational and academic needs, they also may be less likely to select the appropriate institution at which to pursue their educational goals. This study assessed students' certainty of academic and profession interest using responses to the ACT Student Profile, specifically students were asked to respond the questions, on a scale of 1-3 with 1 equating to "very sure" and 3 equating to "not sure" "How sure are you about your current choice of college major?" and "How sure are you about your occupational choice?"

The qualitative interview served to assess how perceptions of institutional quality, as measured by academic reputation, alignment of academic interests to available academic programs, and occupational outcomes influenced applicant college choice. Students were asked seven questions.

- Do the course offerings in your intended major support your intended occupational path? Were these important to your decision?
- Do the research interests of the RCU faculty in your intended major correspond to your interests? Were these important to your decision?

- Does the structure of your intended major position you to attain your educational and occupational goals? If not, what gaps do you see in your program of interest? Were these important to your decision?
- What characteristics of RCU were important in your decision to attend? [Level of interaction with faculty; research opportunities
- How would you describe the academic reputation of RCU compared to other schools to which you applied or considered?
- How would you describe the reputation of the faculty at RCU compared to other schools you considered/ to which you applied?
- Do you believe that a degree from RCU is just as valuable to you as a degree from [other schools you considered? Or specific institutions such as UD, UL, UF?

Predictors for Applicant Enrollment at RCU: Quantitative Study Findings

Six sets of logistic regression analyses were conducted to examine the predictive value of the constructs discussed above on the dependent variable, which was enrollment at RCU. The first analysis was conducted using the data for all application years collected from RCU application and NSC sources. There was a significant amount of missing ACT data available for the year 2008 as well as missing student contact data for 2009. Therefore, to improve the internal validity of our analyses and avoid exclusion of excessive cases, we conducted a separate analysis for each year. Statistical significance for variables reported in the logistic regression analyses was set using an identified maximum probability of $\alpha \leq .05$.

Table 11 illustrates the findings for each year's analysis. Data for each year is narrowed to a subset of the constructs under consideration for the reasons described above. The variables included in table 11 include student gender and ethnicity, proximity to campus, ACT composite score, off-campus contact with students, and on-campus contact with students. For all years, student proximity to campus was a significant predictor of the odds that a student enrolled at RCU. Students who lived closer to the campus during high school were more likely to enroll ($\beta = -1.36, \alpha < .001$; $\beta = -0.94, \alpha < .001$, and $\beta = -1.04, \alpha < .001$ for 2008, 2009, and 2010, respectively). An important finding was that off-campus contact between an applicant and an RCU staff person significantly increased the odds of a student enrolling at RCU. Students who met with a staff or student on campus were more likely to enroll than students who did not receive such contact. In years 2008 and 2010 RCU off-campus contacts with students significantly predicted enrollment outcomes ($\beta = 1.06, \alpha < .001$; $\beta = -1.85, \alpha < .001$ for 2008 and 2010, respectively). The predictive odd varied between years. In 2008 students who received more off-campus contacts were almost three times as likely to enroll at RCU as students who received fewer contacts. In 2010 students were over six times as likely to enroll if they received more contacts. This variable was not significant for 2009, but this may be attributed to the fact that 2009 contact information was under recorded given an institutional conversion to a new student enrollment management software package.

On campus contacts were also a significant predictor of student enrollment and again varied by year ($\beta = 1.06, \alpha < .001$; $\beta = -0.94, \alpha < .001$, and $\beta = -1.04, \alpha < .001$ for 2008, 2009, and 2010, respectively). In 2008 students who visited campus to attend a campus tour or preview event were

just over twice as likely to enroll at RCU as students who did not visit campus. In 2010 students were under twice as likely to enroll if they visited the campus. While the 2009 findings were robust and significant, with the predictive odds indicating students were over nine times as likely to enroll, the findings must be interpreted with caution given that 2009 contact information was under recorded.

Table 11: Predictors of Student Enrollment at RCU Based on Application Data

	2008 (N=2401)		2009 (N=2903)		2010 (N=3256)	
	B	Odds Ratio (ExpB)	B	Odds Ratio (ExpB)	B	Odds Ratio (ExpB)
Student Demographics						
Gender	-0.117	0.89	-0.129	0.879	-0.274 **	0.76
Ethnicity	-0.103	0.902	-0.047	0.954	-0.395 ***	0.674
Proximity to Campus	-1.36 ***	0.257	-0.914 ***	0.401	-1.04 ***	0.354
ACT Composite Score	-0.018	0.982	-0.04 ***	0.961	0.001	1
Off Campus Contact with Student	1.06 ***	2.895	0.642	1.9	1.85 .***	6.34
On Campus Contact with Student	0.676 ***	1.66	2.29 ***	9.864	0.546 .***	1.73
Constant	2.168	8.745	2.435		0.462	1.203

[†]p<.05; **p<.01; ***p<.001

Student achievement proved to be an inconsistent predictor of enrollment choice. In 2009 ACT Composite Score significantly predicted student enrollment ($\beta = -0.04, \alpha < .001$), whereas ACT score did not predict enrollment in 2008 and in 2010. In 2009, for every point a student scored higher on the ACT, the student was 0.961 times less likely to enroll at RCU. Finally, in 2010, but in no other year, gender ($\beta = -0.274, \alpha = .003$), and student race/ethnicity ($\beta = -0.395, \alpha < .001$) was significantly associated with student likelihood to enroll. Female accepted applicants were 0.76 times more likely to enroll at RCU than male applicants and non-white accepted applicants were 0.674 less likely to enroll.

Findings of the applicant data analysis begins to develop a picture of the factors that may impact enrollment decision. However, these findings may be confounded by the exclusion of additional factors that could alternatively explain why students choose to enroll or not enroll at RCU. The next analysis incorporated all five constructs – student demographics, achievement, perceptions of financial constraints, student contact with RCU, and student perceptions of academic fit. Data for 2010 was used to conduct this analysis which included data from all three sources, RCU student applicant data, National Clearinghouse enrollment data and ACT Student Profile data.

Six separate logistic regressions were conducted. An analysis was first run for each of the five constructs, independent of the other constructs to identify its independent predictive value. To establish the potential strength of the predictive value for each construct, we ran a sixth analysis that incorporated all five constructs. In doing so we controlled for potential confounding effects of

construct variables and can better assess what factors most strongly predict student enrollment decisions.

A summary of findings of the logistic regression analysis for 2010 applicants may be found in Table 12. Six sets of analyses were conducted. The first five sets of analyses considering each set of variables within a construct independent of other variables, a number of factors appear to significantly predict the odds of an applicant enrolling at RCU over another institution. Within the construct of demographics, race and proximity to campus both predicted student enrollment choice. Non-white students were 0.50 times less likely to enroll at RCU than white students ($\beta = -0.698, \alpha < .001$). Also, students who resided closer to RCU were more likely to enroll at RCU ($\beta = -0.902, \alpha < .001$). Institutional contact remained a very strong predictor of enrollment. Students who received more off-campus contacts were over six times as likely to enroll as students who received no or fewer contacts ($\beta = 1.88, \alpha < .001$). As well, students who visited the campus were 1.46 more likely to enroll than students who did not visit the campus ($\beta = -0.378, \alpha < .001$). Within the construct of financial constraints, only student expectations that they will apply for financial aid appeared predictive of student enrollment choice ($\beta = 0.337, \alpha = .02$). Students who reported they intended to apply for financial aid were 1.4 times as likely to enroll at RCU as students who reported they would not apply.

Considering all variables and constructs as co-variants more clearly explains variance. In the sixth set of analyses, all independent variables in each of the five sets of constructs were regressed against the dependent binary variable of enrollment choice. Several factors continued to emerge as significant predictors of student applicant enrollment. In some cases, while the predictive value of some variables held to be significant, their impact decreased. For example, while race/ethnicity ($\beta = -0.809, \alpha < .001$) and student proximity to campus ($\beta = -1.225, \alpha < .001$) remained significant predictors of student enrollment choice, the odds ratio decreased slightly. In other cases the odds ratio increased. When considering all factors, the odds of a student enrolling at RCU increase so that students who live closer to campus are 1.23 times more likely to enroll than individuals who lived a greater distance away from the campus. A student is 6.83 times more likely to enroll at RCU over another institution for each additional student off-campus contact received from RCU. Finally, while the construct of student achievement did not prove significant when analyzed independent of other variables, when controlling for all variables within all constructs, both high school grade point average ($\beta = -0.421, \alpha = .002$) and ACT score ($\beta = 0.05, \alpha = .01$) emerged as significant predictors of RCU enrollment.

Table 12: Predictors of RCU Enrollment for 2010 Accepted Applicants

	Set 1 (N=3598)	Set 2 (N=2051)	Set 3 (N=2650)	Set 4 (N=1700)	Set 5 (N=2112)	Set 6 (N=1594)
Student Demographics						
Gender	.034					-.099
Race	-.689 *** (0.50)					-.809 *** (.445)
Proximity to Campus	-.902 *** (0.46)					-1.23 *** (.294)
Student Achievement						
High School GPA		.023				-.421 ** (.657)
ACT Composite						.050 ** 1.051
Institutional Contact						
Off Campus Contact with Student			1.88 *** (6.55)			1.92 *** (6.83)
On Campus Contact with Student			.378 *** (1.46)			.632 *** (1.88)
Financial Constraints						
Expectations to Apply for Financial Aid				.337 * (1.40)		.101
Perceptions of Family Income				-.030		-.013
Expectation to Work While in College				-.008		-.099
Academic Identity						
Certainty of major of study					-.040	-.064
Certainty of future occupation					-.092	-.215
	*p ≤ .05	**p ≤ .01	***p ≤ .001			
	Odd ratios, or ExpB are listed in parenthesis when B was found to be significant)					

Analysis of Competitor Institutions

Applicants who did not enroll at RCU over the 2008 – 2010 period enrolled in over 400 other institutions. However, five institutions or systems emerged as those who draw the most RCU applicants. While RCU officials are well aware as to where non-RCU enrolled applicants attend, less is known about predictors of enrollment related to those institutions. The next analysis compares RCU applicant data to available applicant data at each of the five top competing institutions. Table 13 illustrates the demographics of RCU student applicants who enrolled at one of the five competing institutions. Of interest is that University E enrolled a higher proportion of non-white applicants than any other competing institution, including the community college. Also worth to note is the median applicant distance from RCU. As

expected, State Community College 1 students who applied and were accepted to RCU lived closer to RCU than any other enrollment group.

Table 13: Demographics of Applicants Enrolled at RCU and Top 5 Institutions 2008-2010

	RCU	UH	UD	UE	SCC1	UF
N Applicants Enrolled	4118	134	301	225	233	379
% White – Not Hispanic	84.3	89.6	90.1	74.7	90.1	86.3
% Female	60.6	67.2	63.5	57.3	64	66.2
Mean ACT Composite	20.72 (7.059)	20.48 (7.90)	22.30 (8.18)	22.8 (.572)	19.81 (6.86)	20.87 (7.85)
GPA	3.31 (.566)	3.41 (.478)	3.56 (.457)	3.48 (.450)	3.11 (.652)	3.40 (.499)
Sure of Major	1.8 (.742)	2 (.779)	2.01 (.757)	1.93 (.767)	2 (.737)	2.75
Sure of Occupation	1.92 (.745)	2 (.784)	2.13 (.772)	2.07 (.728)	2 (.697)	2.01 (.753)
Median Applicant Home Distance from RCU	116.44	115.12	175	174.41	32.11	115.21
Family Income	5.25 (2.87)	5.11 (2.987)	6.49 (2.668)	5.60 (3.046)	4.88 (2.868)	5.73 (2.80)

A separate logistic regression analysis was conducted using enrollment at RCU versus enrollment at one of its top five competitors as the dependent variable. Using a sample that contained enrollees at RCU and the top five competing institutions, six separate logistic regressions were conducted. An analysis was first run for each of the five constructs, independent of the other constructs to identify its independent predictive value. To establish the potential strength of the predictive value for each construct, we ran a sixth analysis that incorporated all five constructs. In doing so we controlled for potential confounding effects of construct variables and can better assess what factors most strongly predict student enrollment decisions at RCU or an institution within this competitor set.

A summary of findings of the logistic regression analysis for enrollment at RCU versus any one of its top five competitors is presented in table 14. A number of factors appear to significantly predict the odds of an RCU applicant enrolling at RCU versus one of these institutions. Within the construct of demographics, race and proximity to campus both predicted student enrollment choice. Non-white students were twice as likely to enroll at RCU as white students ($\beta = .939, \alpha < .01$). Predictably, students who resided further from RCU were more likely to enroll at one of these competitors ($\beta = -0.948, \alpha < .001$). These predictors remained significant when controlling for other enrollment predictor factors. An interesting finding is that students who received more off-campus contacts were over five times as likely to enroll than students who received no or fewer off campus contacts ($\beta = 1.784, \alpha < .001$). On campus visits had a significant effect after controlling for other predictor variables. Overall, students who visited the campus were 1.5 times more likely to enroll at RCU, versus one of its top competitors than students who did not visit RCU ($\beta = 0.455, \alpha = .017$). Students with lower ACT scores were slightly more likely to attend RCU than students with higher ACT scores.

Table 14: Predictors of Enrollment – RCU Enrollees and Applicants Enrolled at Top Competitors

	Set 1	Set 2	Set 3	Set 4	Set 5	Set 6
	(N=1704)	(N=1139)	(N=1708)	(N=922)	(N=1157)	(N=864)
Student Demographics						
Gender	0.043					0.36
Race	0.317 *					0.939 **
	(1.37)					(2.558)
Proximity to Campus	-0.788 ***					-0.948 ***
	(0.455)					(-0.388)
Student Achievement						
High School GPA		-0.338 *				-0.581 **
		(0.714)				(.559)
ACT Composite		-0.057 **				-0.041
		(0.944)				
Institutional Contact						
Off Campus Contact with Student			1.649 ***			1.784 ***
			(5.19)			(5.95)
On Campus Contact with Student						.455 *
			0.09			(1.577)
Financial Constraints						
Expectations to Apply for Financial Aid				0.184		-0.004
Perceptions of Family Income				.058 *		-0.042
				(.068)		
Expectation to Work While in College				-0.019		0.097
Academic Identity						
Certainty of major of study					-0.074	-.322
Certainty of future occupation					-0.187	-0.152

p ≤ .05 **p ≤ .01 ***p ≤ .001

Odd ratios, or ExpB are listed in parenthesis when B was found to be significant)

Comparison of RCU to Individual Institutions

A third set of logistic regressions were conducted to compare RCU to several of the top competing institutions, with enrollment at RCU over enrollment at each institution as the dependent variable. The number of enrollment predictive factors included in the analysis were limited given some of the competing institution samples were relatively small. An analysis of University H was not conducted given the small sample size.

An analysis of all state community colleges was added to the analyses to allow comparison between SCC1 enrollees and enrollees at all SCCS schools. Table 15 illustrates these results.

Table 15: Predictors of Enrollment at Competing Institutions

	UF (N=739)	UD (N=740)	UE (N=714)	SCC1 N=923	SCCS N=766
Gender	-0.611	0.141	-0.599	0.678* (.1971)	0.449
Race	-0.711	-	-0.08		-0.301
High School GPA	-0.349	0.898** (.407)			
ACT Composite	0			0.109**	.144***
Off Campus Contact with Student	2.008***	2.02***	2.866***	2.57***	1.73***
On Campus Contact with Student	7.445	7.53	17.561	13.07	5.66
Perceptions of Family Income	0.19	0.505	-0.04	1.15**	.795**
Certainty of major of study	-0.006	-.263*** -0.769	-0.034	3.15	2.215
	-0.133	-.509* (0.601)	-.590* 0.554	-.608** (.545)	0.186
	-.111			-0.047	-0.324

Certainty of future occupation

* $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$ (Odd ratios, or ExpB are listed in parenthesis when B was found to be significant)

The results of this analysis need to be interpreted with caution. First, while the total number of cases analyzed was large for each group, the number of cases enrolled at the respective competing institution was small compared to the number of students who enrolled at RCU. Nevertheless, the results suggest that predictors of enrollment may vary based on the type of institution at which the applicant actually enrolls. Of interest, off campus contacts with students continued to be a significant predictor of RCU student enrollment. This was especially true when compared to applicants that enrolled at University E and SCC1. When comparing RCU enrollees to University E enrollees, students were over 17 times more likely to enroll at RCU for every additional off campus contact. Similarly, applicants were 13 times more likely to enroll at RCU over a SCCS school for every additional off-campus RCU contact. As well, students who enrolled at SCC1 had less on campus contact than students who enrolled at RCU. While certainty of major or occupation did not emerge as a general predictor of enrollment when looking at enrollment by institution, University D and University E enrollees indicated they were more certain of their major pursuit than RCU enrollees ($\beta = -$

0.509, $\alpha = .017$, and $\beta = -0.590$, $\alpha = .037$, respectively). Finally, SCC1 enrollees reported they were more certain of their occupation than RCU enrollees ($\beta = -0.608$, $\alpha = .009$).

Impact of Prediction Factors on enrollment Patterns of Applicants within the RCU Service Region

Given the high percentage of students who apply to RCU and reside within the 18 county service region, the final quantitative analysis specifically examined RCU applicants who resided within the 18-county service region. The findings of the logistic regression may be found in Table 16.

Table 16: Predictors of Enrollment at RCU 2008-2010 for Applicants in Service Region

	Set 1 (N=1704)	Set 2 (N=1139)	Set 3 (N=1708)	Set 4 (N=922)	Set 5 (N=1157)	Set 6 (N=864)
Student Demographics						
Gender	-0.023					-0.055
Race	0.318 **					0.475 *
	-1.37					-1.607
Proximity to Campus	-0.793 ***					-.940 ***
	-0.453					-0.391
Student Achievement						
High School GPA		0.208 *				0.125
		(.1.23)				
ACT Composite		-0.012				-0.009
Institutional Contact						
Off Campus Contact with Student			1.099 ***			1.15 ***
			3.002			3.173
On Campus Contact with Student			-0.029			0.035
Financial Constraints						
Expectations to Apply for Financial Aid				0.274		0.312
Perceptions of Family Income				-0.005		0.001
Expectation to Work While in College				0.055		-0.206
Academic Identity						
Certainty of major of study					-67	-0.061
Certainty of future occupation					-0.01	0.033

$p \leq .05$ ** $p \leq .01$ *** $p \leq .001$ (Odd ratios, or ExpB are listed in parenthesis when B was found to be significant)

Proximity and student race continued to impact student choice. Even within the service region, the further a student lived from RCU, the more likely they were to choose a different college at which to enroll ($\beta = -0.94, \alpha < .001$). Of note, students of color who lived within the service region were more likely to enroll at RCU than their white counterparts ($\beta = 0.475, \alpha = .017$). Interestingly, off campus contact continued to significantly impact an applicant's likelihood that they will enroll at RCU. Applicants were over three times as likely to enroll at RCU for each off-campus contact event ($\beta = -1.15, \alpha < .001$). For this population, on campus contact had little effect. This finding suggests that, despite the fact that regional student may be more aware of RCU, contact with RCU staff within their high school and other settings remains critically important to their enrollment choice decision.

Qualitative Data to Support Quantitative Findings

According to application data, student proximity to campus and the applicant-RCU contact experience may likely influence student enrollment choice. The competing institution comparisons suggest that it is possible certainty of an academic pursuit/identity could influence enrollment choice when a student is comparing RCU to a large urban doctoral institution. Furthermore, occupational certainty may impact student choice for students who apply at both RCU and SCC1. However, these findings do not explain how or why these factors lead students away from the institution. Also, a number of other constructs, such as parent influence, competing institution characteristics, student choice of field of study, and student academic engagement which could help explain institutional choice are not included in these analyses. To better understand and build on the quantitative findings, the findings will be considered and discussed in relation to qualitative analysis and related literature. These analyses may provide context to answer questions raised by the quantitative data, such as:

- Why is student off-campus contact a stronger predictor of student enrollment than on-campus contact?
- Does quality of contact with RCU also impact the decision to attend?
- Why do some students, who seem satisfied with RCU's academic quality, still choose to attend another institution, even if it is a higher cost/higher debt institution?

Qualitative data was collected through interviews with 22 students, 12 of whom did not enroll at RCU, and 12 RCU Staff. The interview protocol and procedures may be found in Appendix B. Interviews were digitally recorded. Research team members listened and transcribed recordings into notes which were then organized within a matrix segmented by the construct themes described below.

Student Contact

The quantitative data suggests student contact with the RCU campus and staff is a strong predictor of whether a student will attend RCU. These findings are supported by the literature that suggests the number of direct contact points may impact student choice decision (Goenner and Pauls, 2006). Many RCU enrolled student who were interviewed reported they received contact with RCU in their junior year in high school, if not earlier. However, sheer number of contacts alone may not explain why students enroll. It may be the quality of the interaction with RCU or a representative of RCU. Many of the students we interviewed indicated that they met with campus representatives through a campus or off-campus event. All interviewees indicated the staff member(s) with whom they interacted both before and during the application and enrollment process were helpful. No negative experiences were indicated in interviews by either students who enrolled or did not enroll at RCU.

One student interviewed, a resident of State 5 who also indicated a clear academic program and vocational path, indicated the interaction she had with faculty was imperative to her decision as the faculty members took the time to answer her questions. She said,

“I met Dr C. and then another [faculty person] from bio...they gave me the background knowledge I should have to get in. I was not sure if I had all the bio...I did have chemistry. Both were very influential. They told me what were the best classes to take in high school about ACT scores. I asked if premed was one major or do I still have to take chemistry or biology as a major.... I asked about organizations on campus that will help me get to med school. I got my questions answered....the faculty at my UT Martin visit seemed rushed.”

Very often, the RCU representative that influenced students was another student or alumni who connected with the student informally. Virtually all enrolled students interviewed indicated a contact with a non-staff person strongly influenced their decision.

For example, as one student put it:

“I had an older friend who went there...and she told me all about it, told me she loved it and everything.”

One student of color who resided in northern State 1 indicated in his interview that he had made several visits to RCU after his cousin suggested that he could go to college and RCU was a good institution to attend. Said the student,

“I had always known about RCU being from State 1. I had a relative who attended here...He convinced it was a possibility that I could go to college. I was 18. I applied when I was 18; unfortunately my ACT scores were not high enough so I started at KY State. I attended one semester and then transferred here.”

Students living in close proximity to the institution often indicated in their interviews a long relationship with the campus. Of interviewees who enrolled at RCU, approximately one half of interviewees reported living in close proximity to RCU and having early contact with the campus through relatives or activities. Approximately one third reported visiting campus in their middle or grade school years. Others had family members who attended RCU. Yet, no matter whether the students resided in close proximity to the institution or across state lines, the importance of a quality interaction, whether that interaction is with an “official” RCU representative or informally through a current student or alumna, may override the quantity of interactions. Student perceptions of the usefulness and quality of the interactions with university staff may improve the student’s sense of fit with the institution. (Hossler, Braxton, Coopersmith, 1989; McDonough, Antonio, Walpole, and Perez, 1998; Meredith, 2004; Kazoleas, Kim and Moffitt, 2001; Levitz, 2007.) As proxy or informal representatives of the university, current students and alumni may serve a similar function.

Interviews with RCU staff helped frame the mechanics of student-to-campus contact and also provided insights on how a high quality interaction may foster student enrollment, whereas low quality interactions may put the student at risk for enrolling elsewhere. One strength of the student recruitment process may be the campus visit program, which serves to treat the student to an individual experience at RCU. One staff member described the uniqueness of the RCU campus visit experience this way,

“We have a unique campus visit. It’s an individual visit and they meet with someone different every 30 minutes. We sell it as it is about the experience [at RCU]. We are committed that they come here, but more so that they walk across the stage. We talk about the one-on-one experience. We don’t do cattle calls like at the large schools.”

Another staff person contrasted the experience of talking to students in high schools with on-campus contact:

“Honestly I think what is most effective is when they come here for our campus visit. Sometimes I only get 30 seconds before they move on to next table. School visits are funny in that sometimes I only get lunch room visit.”

Enrolled students who were interviewed indicated they were satisfied with the campus visits; however, the type of visit could be satisfying to students for different reasons. One student, who attended a campus visit followed by dessert reception and an on-campus event said this,

“It (on-campus university event) was really crowded. There were a lot of people there. I kind of didn’t like it, I like the campus visit better.”

Another student who eventually enrolled at RCU had last minute concerns when she attended orientation. She said,

“When I was signing up for scheduling at summer orientation, there were so many students, professors could not help everyone at once. I kind of questioned that [my decision] because I knew if I went to one of the smaller schools I would have gotten more individual attention.”

In these cases, the students choose to attend RCU despite a poor campus contact experience. Non-enrollees who were interviewed did not indicate poor contact experiences as a reason for non-enrollment. Nevertheless, continued and consistently high quality student interactions may impact student choice. One admissions counselor noted that the admissions counseling staff often deal with the brunt of complaints from students about the admissions and financial aid processes. This issue will be discussed more completely in the enrollment management section of this study; however, comments indicate complaints were most often associated with a poor tour experience, primarily relating to a student ambassador and lack of a timely response to financial aid or admissions status and questions.

The logistic regression analysis of student application data presented earlier also revealed that that the off-campus contacts may be an even stronger predictor of student enrollment at RCU than on-campus contact. In general, students who had more off-campus contact with RCU enrolled at higher rates. The qualitative interviews with students supported this conclusion, but further suggested that it may not only be the contact that is important to student enrollment decisions, but the quality and timing of contact as well as appropriateness of content communicated. Quality and timing of contact includes elements prospective student services as well as the student perceptions that they receive the information they need when they need it. Appropriateness of content communicated suggests that students receive information from the campus that addresses the critical questions the student is asking him/herself during the critical college choice phase, in particular as it relates to institutional quality (Braxton, 1990.)

It is interesting that a number of non-enrolled students and one-enrolled student who were interviewed stated that they had no contact with a recruiter. This does not mean that RCU did not visit their high schools, but rather that RCU did not come into their cognition until someone reached out to them. One student interviewed stated that RCU only came into his cognition until his mother brought up RCU during his senior year in high school. He said,

“Had it not been for my mom, I would not have known about RCU. I never had heard about RCU in State 5, but when I came here I heard a lot about it and the program is good.”

This same student stated none of his guidance counselors had informed him of RCU. This student spoke of other students from his high school and his perspective that “few”, at least in his program of interest, knew about RCU. He spoke of himself as now being a “junior recruiter”. He said,

“I was the only one from my classes to end of going here, I’ve seen a couple people from my school here. A couple of seniors I was in band with are now talking about coming here, I think because I came here and I’ve been talking about it. It’s not on the radar for the friends I know.”

When asked about questions relating to the admissions process, all enrolled students interviewed noted they received support from a RCU representative. However, for interviewees who did not enroll, contact was clearly absent and the opportunity to correct student misperceptions lost. For others, the timing or usefulness of the interaction with RCU staff was less clear.

Linking Demographics and Social Capital to Student Enrollment Decisions

The link to a quality experience may also indicate that a positive experience with a staff representative at RCU could lead the student to feel they have a social support structure. This development of social capital may be of particular importance for first generation and underrepresented student populations. According to the results of the logistic regression presented earlier, applicants of color are significantly less likely to enroll at RCU. Two explanations for this relationship can be offered. First, it may be that students of color are more likely to be first generation college students and thereby lack parental support and encouragement. Bateman and Hossler (1996) identify three familial factors, family income, parental education, and parental levels of encouragement as important influences of student enrollment choice. Freeman (2005) speculates these factors are particularly pertinent for African American Students. One student of color interviewed indicated that he received no support from his immediate family and felt intimidated to seek support regarding financial aid and academics from institution staff. However, due to an extended family relationship he had made several visits to RCU prior to enrolling there. That experience made him comfortable enough to not only see himself at RCU but see himself in college. He said,

“I visited a lot and I spent time with other students and on the campus. I felt comfortable here.”

Certainty of Academic and Occupational Needs and Institutional Quality

What constitutes quality to a college applicant may vary and may often be associated with the potential of an institution to foster social, academic, and vocational development (Braxton, 1990). However, at the enrollment choice stage, students may be less aware of their academic and vocational interests or may be less able to independently understand how a particular institution will meet their academic and occupational needs. This may be especially so for first generation college students. If students are less aware of their occupational and academic needs, they also may be less likely to select the appropriate institution to pursue their educational goals. The qualitative interview served to assess how perceptions of institutional quality, as measured by academic reputation, alignment of academic interests to available academic programs, and occupational outcomes influenced applicant college choice.

Qualitative data suggest that, for students who enrolled at one of RCU's top competing institutions, certainty of academic major and certainty of career choice may influence student choice decision. Students who enrolled at University D or University E were somewhat surer of their major than students who enrolled at RCU. As well, students who enrolled at a state community college were somewhat more likely to be sure of their occupational path than students who enrolled at RCU. While these findings did not hold true for the full applicant population, African American Students were also somewhat less likely to enroll at RCU if they were more certain of their occupational path. An explanation for this finding may be supported by the literature. Students are more likely to enroll in an institution that offers programs consistent with the students' intended career path (DesJardins, Dundar, and Hendel, 1999; Terenzini, Cabrera, and Bernal, 2001).

Student interviews, in particular with non-enrolled students, suggest that student decision making might not have so much to do with perceptions of academic quality, but may more likely be linked to whether the student was aware of the program or the value the student saw in the degree in terms of obtaining a job post graduation. Interviewed students regularly reflected that they perceived RCU to be as academically competitive as other schools. Many made statements similar to this student,

"I don't think that RCU's reputation was a factor in me not choosing to go there."

Another student was more specific,

"RCU has a pretty good reputation where I'm from. ...I would say that RCU and UE are probably in the same tier as far as schools go, so I really don't think that RCU's reputation was a factor in me not choosing to go there"

However, student absence of knowledge about academic programs at RCU did impact at least one student's decision.

"I was originally going to be a physics teacher and I looked into that at both schools to see what kind of programs they had and...I didn't realize the RCU did have a teacher education program for a physics degree. I didn't realize that they had that, it wasn't real well advertised on their website. I didn't go to the school and ask anybody about that but that was the thing that led me to enroll at University F."

Of greater concern to students was their perception of the value of the RCU degree. These comments suggest students may not have a clear understanding of vocational paths and how RCU can lead them on that path. Previously shared in the student contact section of this report was the account of students who perceived they would have greater access to out-of-classroom academic opportunities at another school. Another student put it this way,

“It’s hard for to say because I don’t know that much about them but University F seems like it is more academic just because it’s bigger...it seems that people think if you get a degree from University F then that improves your chances of getting a job.”

Finally, faculty reputation did not seem to impact student choice. Those students interviewed who spoke of faculty spoke of them not in terms of their reputation, but in terms of what faculty were able to offer to the student. One student spoke of how interaction with RCU faculty heavily influenced his decision to attend RCU. This seemed especially important since he had developed previous relationships with faculty at two different institutions in State 5 and his high school counselor heavily recommended University of Q. He said,

“I met Mr. E. and Mr. H. here. I actually knew some of the people from University Q and had met Mr. W from University X two years ago and their advance instrumental people. I liked it here better than University Q. I think it [the program] is well organized and laid out.

Again linking back to perceptions of degree value, the same student later indicated, despite his satisfaction with the academic program,

“If money was not an object, I probably would have gone to University X because I think I could have gotten into grad school better.”

The majority of enrolled students interviewed indicated they did not meet faculty before coming to RCU; however, once they arrived here, the faculty exceeded their expectations. These sentiments were put simply as,

“The professors are better than I expected.”

“The faculty are great, they are there for you.”

“The classes exceeded my expectation.”

Thus, the impact of academic programming in terms of student enrollment choice seem to revolve around, not so much student perceptions of RCU’s reputation in comparison to other schools, but what the student perceive they will get from the academic experience and how that experience will impact their ability to obtain employment in a competitive market. Thus, it appears critical that RCU illustrates to applicants how the institution fits with their career aspirations, not how the student fits into the institution.

The concept of academic quality and reputation seemed relevant only to the extent of its instrumental value post-graduation for a majority of both enrolled and non-enrolled students interviewed. One applicant interviewed who attended high school within a 30 mile radius of the institution and who did not enroll at RCU, nor had any staff contact, said this,

“The reputation is that it is good for education...if you want to be and education major you should definitely go to RCU, but on a high school level you hear that it is okay, but really it’s like a safety school. It’s alright, but it’s not exactly reputable, especially around the area.”

Several of the non-enrolled students who were interviewed suggested they chose another institution, not because they doubted RCU’s academic quality, but because they questioned the value of a degree from RCU in relation to a degree from another of the RCU top competing in-state baccalaureate institutions. One non-enrolled applicant who lived in the town where RCU is located, and who did not speak with an admissions counselor, suggested that his perceptions of academic related work opportunities influenced his decision. He perceived,

“I’m a psych major so pretty much anywhere would have been okay for me but one reason I did choose University E was probably more opportunities for undergraduate research work...in my first semester I’m already working in a research lab.”

Another non-enrollees interviewed who also believed RCU was academically comparable to other institutions, selected her institutions based on the perception that she would have a better chance of getting a job within the region. She said,

“Me and my friends have always said the same thing...if it was solely based on academics, and if it was solely based on the education we wanted to get out of an institution we would all be at RCU, and that’s the truth because we know a lot of people who have graduated from there...but in the long run UD is more recognized [outside of the region] when I want to get a job.”

These student comments seem in contrast to perceptions articulated by admissions counselors and staff who suggested that RCU is a better choice for students over a large institution because, as one counselor put it, “You can be a big fish in a small pond.” It may be that while RCU is doing a good job of transmitting information about its academic quality, it is not communicating all it could to help applicants understand the value of the RCU degree. When asked if they received information about career placement from RCU, all students interviewed said they did not receive information. Receiving placement and having knowledge of the career support a student may receive at RCU may be a critical component to student enrollment decisions in an economy where the job market for college graduates is highly competitive.

Financial Constraints

According to the literature, students who face a higher degree of financial constraints may be more likely to select a college option that they perceive to be more affordable (Leppel, 1993; Long, 2004; Fuller, Manski and Wise, 1982; Levitz, 2007; Paulsen (1990). The logistical regression analyses of applicant data on enrollments at RCU in relation to its most significant

competing institutions suggest that student perceptions of financial constraint only marginally impact student enrollment choice of RCU over other institutions. Applicants from 2010 who reported they expected to apply for financial aid were only slightly more likely to enroll at RCU than students who did not expect to apply for financial aid. When examining the applicant data for three of the top five competing institutions it appeared that students who enrolled at University D also reported lower perceived family income. In all cases, the analyses may be limited by the fact that measures of financial constraint were based on student perceptions and student may not provide reliable data. However, in interviews students seemed well aware of the cost of college, what type of aid or scholarships they received, and the impact that aid made on their decision to enroll or not enroll at RCU.

The allocation of financial aid may both help and hinder RCU in reaching their enrollment targets. Two thirds of non-enrolled students interviewed remarked they chose another institution based on the financial package they received as students who reported they chose RCU based on the fact it was the more financially viable choices. In most cases, RCU was the better financial choice when the student was interested in a private institution and did not receive sufficient financial aid. Three enrolled student interviewees indicated they would have chosen a private State 1 or State 5 institution had they received sufficient aid.

All enrolled students interviewees were well aware of RCU's tuition discounting policy. Three such students from State 5 attributed that policy, which averages in-state tuition at out of state schools within its region and charges those out of state students a tuition rate that is comparable, as a reason why they came to RCU over a school in their state.

Staff interviews suggest financial constraints may impact student choice in two ways. First, several staff shared a perception that students choose to attend a state community college campus because tuition is much less expensive. None of the staff who was interviewed could speculate whether those students return to RCU after receiving their associate degree.

While students interviewed reflected that they had a clear understanding of the financial aid process, for many, the process was difficult. Unknown is whether students who were accepted and enrolled elsewhere or did not enroll, did so because they lacked the help and support to complete the financial aid process or they lacked a timely response as to their award. In their interviews, several staff indicated concerns that students did not receive financial aid information in a timely manner. This problem seemed to be confounded by the fact that financial aid, at the time of the interviews, was housed in a separate office. Further, some staffers noted that they received complaints from applicants about long wait times for information. Another staff in his or her interview noted that a special scholarship event, intended to bring students who received scholarships at RCU to campus, came too late in the semester. This staff person cited the timing of the event as unfortunate as it appeared they lost several students to other schools prior to the reception date. Information on the timing of these events, which may have helped to confirm this hypothesis, was not collected.

Summary of Findings Related to Question #2

Examination of how successful RCU has been in attracting applicants and what factors are important in the decision provides a basis for fine-tuning its practices. Data on its success relative to individual and groups of institutions, and by region, allow for more efficient application of effort at the granular level of area, county, even high school, and/or by factors such as income and student achievement, to boost enrollment yield rates. A number of items for consideration emerged from these analyses:

- Distance is an important factor and acts predictably (students who live farther away from the institution are less likely to enroll, and this element increases in importance as distance increases);
- Ethnicity may be an important factor in the enrollment population for certain populations but needs further investigation; gender does not appear to be significant for any sub-population examined;
- Achievement may be important in relation to the top five competing institution and with enrollees in an institution within the State community college system (SCCS);
- Contact is critical, more so off-campus than on, and permeates all analyses;
- Financial constraint, in terms of estimated family income levels, may have relevance to students who eventually enroll at University D; it does not appear relevant to the decision to enroll in a SCCS institution and this could have implications for RCU as it seeks to increase penetration within its service region;
- Certainty of major is relevant when compared with applicants who enrolled at University D and University E;
- Certainty of occupation may be important in the applicant's decision to attend SCC1 over RCU

These findings can help to inform decisions on adjustments to enrollment management methods and recruitment strategies that can positively impact the applicants' decision to enroll.

Part III: Understanding how Institutional Factors Influence Student Choice

Project Question 3: What current enrollment management methods may impact application and application to enrollment yield rates?

Conceptual Framework of Enrollment Management Factors and Measurement Instruments

Enrollment management strategies guide the delivery of services and information that can drive the student choice process. Bontrager (2004) identifies several Enrollment Management (EM) core principles that may contribute to a successful EM structure. According to Bontrager, these include the establishment of clear enrollment goals and strategies to fulfill the mission of the institution; structures to support cross department and office collaboration; and, methods to collect and analyze applicant data to support continuous environmental scans of the competitive institutional market, the applicant market, and the market needs.

Volatility in state budgeting has been a constant challenge for higher education and has increased over time. Presently, this volatility is exacerbated by a general lack of willingness on the part of legislatures to fund higher education (Doyle and Delaney, 2009). Changing demographics, rising costs, new market forces, reduced public funding, and increased student expectations and accountability requirements are converging to force significant changes in the way public institutions operate (Fullan and Scott, 2006). All of these factors require that institutions consider their cost structure in a holistic and strategic manner, and not just as a temporary accommodation. Tuition increases can no longer be relied upon to offset declining appropriations (Callan, 2002), and many institutions have eliminated discretionary and marginal expenditures from their budgets. Consequently, enrollment managers also become resource managers (Jonas and Popovics, 2000), as the ability to focus recruitment and admissions resources to maximize enrollment yield becomes ever more critical to sustaining institutions of higher education.

Parts I and II of this study presented data and analyses provided a picture of the competitive institutional market and factors that may drive enrollment choice decisions for RCU applicants. RCU applicants who did not choose RCU were most likely to enroll at University D, University E, University F, University H, or a campus within the state community college system (SCCS), particularly state community college 1. Quantitative findings identified students' proximity of high school address to campus, student achievement, and frequency of contact with the institution were significant predictors of student enrollment at RCU. Qualitative analysis found student perceptions the degree to which RCU will progress them toward their academic and occupational goals and the perceived quality of the applicant contact experience with RCU are factors that may influence student choice. Part III of this analysis will consider what and how enrollment management methods may impact application and application to enrollment yield rates. The analysis will be organized around three

construct that address core enrollment management principles outlined by Hossler and Kalsbeek (2008). Specifically,

1. Enrollment goals and strategies within the context of institutional goals and mission.
2. Departmental and unit structures; and,
3. Data analysis and the institution, market, and applicant environment.

Data for this analysis was collected through both qualitative interviews and documents received by RCU officials or publically available the institutional websites. Qualitative data was collected through face-to-face interviews with RCU staff from recruitment, admissions, and enrollment management (n=11). The team interviewed six admissions counselors, the director of recruitment, assistant director of African-American recruitment, the director and assistant director of admissions, and an alumni coordinator. The interviews were conducted on the RCU campus in 30-45 minute segments and centered broadly on the same factors that were posited to be relevant to the student's enrollment decision. It is important to note that references to the comments made by individual staff members are necessarily vague because of the small staff size and, particularly concerning admissions counselors, the obvious ease of identification through the territory in which recruiters operate.

After recording the interviews, each interview was reviewed at which time notes were taken. On a subsequent review, these notes were transcribed into a matrix utilizing the major categories and constructs of questions that were used in our interview protocol. Specific protocol questions will be discussed by construct below. The constructs explored through the qualitative interview process served to develop an understanding of institutional mission and goals; past and current enrollment management structure, and perceptions of the institution's ability to respond to applicant needs, critical choice factors and external threats.

Enrollment and Institutional Goals and Strategies

Hossler and Kalsbeek (2008) posit sound EM practices require clear and common understanding of institutional mission and goals and the connection to EM goals within that context. Both institutional and enrollment management goals much be clearly established, evaluated, and prioritized. Furthermore, enrollment management must be at the forefront of institutional planning efforts and policy development. Incorporating EM goals into both policy and planning and practice suggests that EM goals and objectives must be considered at all levels of the higher education organization. Whereas EM staff must hold a clear understanding of overarching planning principles and policy, so must executive officers and governing boards hold a deep understanding of enrollment management goals, activities, and outcomes in terms of program or departmental goals and specific applicant population.

The qualitative analysis assessed enrollment management staff understanding of institutional mission and enrollment goals. RCU staff members were asked to discuss the institutional mission of RCU and its goals, probed through the following questions.

- What is the mission of RCU?
- Describe RCUs strategic plan...goals and objectives of the institution over the next five years?
- What kind of student does RCU hope to attract?
- Who are your targeted recruitment populations?

Numerous staff members expressed that they knew the institutional mission but no one staff member could clearly articulate the mission. Several others seemed unaware of the institutional goals and the overall objectives of the enrollment management unit and how those goals related to the mission of the institution as whole. Efforts to define the mission ranged from broad generalizations such as “to recruit students”, to definitions of what the student should be able to do upon completion (“compete in the workplace”), to definitions of what the school offers. When asked about institutional mission, examples of staff responses were as follows:

“The mission I would say to give the opportunity to student not only in KY but the regional area to come to a great school...to give them what they need to go on to be successful in graduate school or straight into the job market.”

“In a nutshell, enable students to compete in the workforce. We have the resources to provide students with educational opportunities to do this.”

“To create an outlet for students of this area...to provide a regional campus for those students...socially and academically. We have our own mission being an extension of RCU mission to help students and families learn about college.”

Thus, while staff members exhibited a general understanding of the RCU mission, there was not clear understanding as to how to operationalize the mission in terms of student recruitment and enrollment. Such a disconnect may impede the process of or understanding as to how institutional goals translate to academic program planning or recruitment. One, staff member summed up the discontinuity this way,

“To be honest, I think everyone is on a different page about what RCU is and I think the president is doing a good job emphasizing that this is his vision for the university, but I feel like everyone seems to have their own opinion or even agenda about what the university should be.”

Misperceptions and/or misalignment of a clear understanding of institutional goals may result in inefficient and a misappropriated use of resources. An effective mission statement translates the firm’s vision into actionable operational statements (O’Rourke, 2003) so that

organizational members understand how assigned tasks are assigned and resources are distributed so as to fit into the context of the institution's overall goals . RCU's enrollment objective may be an example as to how disparity of understanding of goals and strategies may impede attainment of a specific objective.

All staff recognized RCU's enrollment objective of 12,000 by 2012. Staff interpretation as to how this objective was to be attained differed. While all staff members were clearly aware of the 2012 goal and all had clear understanding of personal enrollment goals, none could articulate how the 2012 goal was derived and how their individual enrollment goals fed into the delivery chain of the larger enrollment goal. As one staff member put it,

“The university is lacking a good strategy and vision. 12 by 12, but no one has broken that out. Where do those numbers come from...what students [e.g. graduate, international, traditional, transfer, etc.]?”

Over three quarters of staff interviewed were skeptical of RCU's ability to achieve this goal focusing on new freshmen enrollments. Demographic data indicating a stagnant or reduced high school graduation population support this sentiment. One staff person stated:

“Where we are... you look at the gap to get from 1600 to 2000, we can't get that many more [new freshmen], and I share that view with others. We can't do much more with our key schools with each of them graduating 25 less each year. Growth is coming from international, transfer, and graduate. We are going to have help from those areas.”

The staff member quoted above articulated a need to establish institution-wide enrollment goals that focus on specific populations of opportunity. Such a focus is we supported by the literature. Enrollment management and institutional planning that begins from the mission statement down and employs a cross function strategy to develop organizational objectives and delivery plan may accelerate institutions toward their enrollment management goals (Bontrager, 2004; Henderson, 2005, Jonas and Popovics, 2000). Critical questions that advise the strategic planning process must clearly define the populations to be targeted by recruitment and enrollment efforts. Specifically, who will comprise the student base? How are these projections quantitatively articulated and disaggregated by academic program, major, demographic characteristics, age (traditional versus non-traditional populations, new freshmen, continuing students, transfer students, etc)? For example, analysis of staff interviews indicates staff perceptions as to the students they are expected to target may impact and limit RCU's enrollment yields. When asked what a recruit should look like, remarks included:

“I really want any student who is interested in RCU who is not going to be forced here. I want a student who wants to take advantage of all the opportunity. I don't want a student who just wants to come here because it is close.”

“We want students who are not only here to go through the motion of classes and get their degree we want them to come here and experience college life we want them to get involved we want them to travel abroad we want them to give back to RCU as much as we give them.”

“I don’t look at numbers I look at the quality of students...so I want to ensure that they not only going to be good students but they want to give back to us as well by getting involved when they are gone providing internship to students.”

An interesting theme across these comments is that, while staff articulation of institutional mission or goals reflect a perception that RCU is there to provide a quality service of educational opportunities to a broad group of individuals, the individuals whom RCU seeks, according to staff, are those who can give back to the institution, not simply use the institution. While it appeared staff intended to establish a student base to uphold quality of the RCU experience for all students, if staff do not hold a clear and unified understanding as to the goals of RCU and the makeup and characteristics of populations of opportunity whom the institution wishes to recruit to attain enrollment management goals, then recruitment efforts may be limited to focus on applicant target populations that are defined by the individual staff member, not the institution. In doing so, the institution may miss opportunities to recruit and enroll groups of students who do not meet the individually imposed student requirements.

Establishing well defined and universally understood institutional goals is critical to establishing a relevant enrollment management strategy. However, the organizational structure that creates and implements such a strategy is equally important. Institutions must address how they intend to achieve enrollment targets and how tasks will be assigned to pursue activities to advance these goals. Important questions to consider how enrollment goals be disaggregated by function unit. For example, how many enrollments will be attributable to new freshmen enrolled through the Office of Enrollment Management; transfer students through the Office of Continuing Education, continuing students through the offices involved with retention initiatives, graduate students, etc. The next construct of analysis will consider the structure of the enrollment management unit within the organization of RCU. Staff interview data will serve to illustrate potential areas opportunity to improve enrollment management processes within the unit and across the organization.

Enrollment Management Organizational Structures

Dolence (1993) defines enrollment management as a “comprehensive process designed to help an institution achieve and maintain the optimum recruitment, retention and graduation rates of students” (page 8). The American Association of College Registrars and Admissions Officers (AACRAO) define strategic enrollment management (SEM) as “an institution's program to shape the type and size of its student body in accordance with its educational mission and fiscal requirements.” There are other definitions that vary slightly in perspective, but all identify comprehensive management structure that focuses on the student experience, from

recruitment to graduation, as the central function of the enrollment process. To this end, institutions must create an organizational structure to accommodate this central principle.

Characteristics within the higher education organization must also be considered within an enrollment management study. Bean (1990) identifies several organizational tasks that are foundational to establishing enrollment management strategies. Clarifying organizational values and mission, assessing the external environment – which includes assessment of threats and opportunities – and assessing the strengths and weaknesses of the internal institutional environment are an important component to developing enrollment management strategies. Hossler (1990) discusses organizational approaches to coordinating efforts within an enrollment management structure, but also across function areas such as financial aid, registration, and student and academic services. Jonas and Popovics (2000) suggest that institutions must develop an enrollment management organization that engages participation in the management process from across higher education functional units. They argue that campus-wide participation is essential to develop accurate analysis, goal projection, departmental commitments, and institutional commitments.

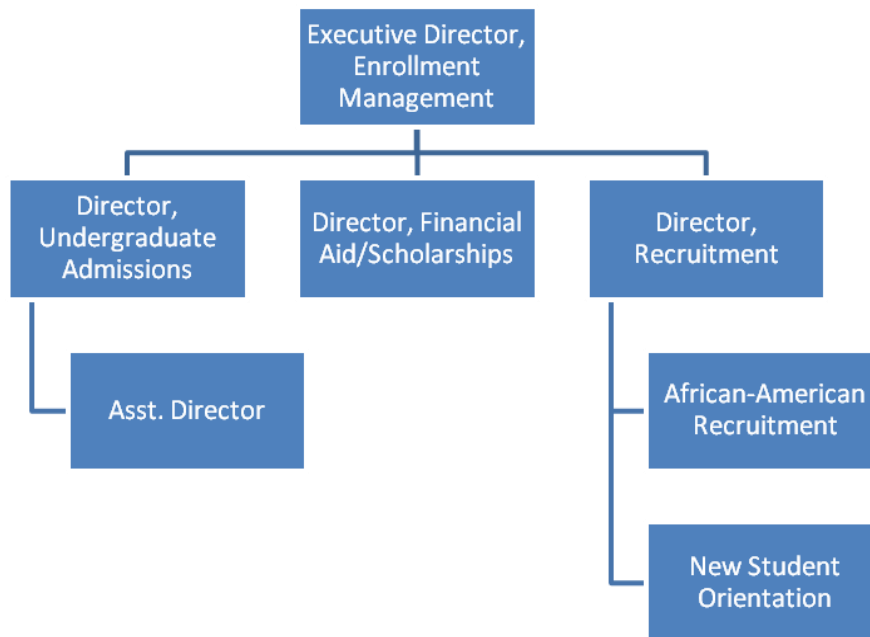
Commonly enrollment management units are comprised of functional units that include offices of recruitment, admissions, and financial aid. Bontrager (2004) describes this mode as a “Basic Composition of Enrollment Management Services”. He and others (Hossler, 1990) contend enrollment management units must incorporate function areas across the recruitment to graduation continuum. Hossler argues the components that comprise a comprehensive enrollment management strategy are too complex to assume one functional unit can maintain sole control over the variables that may impact student choice. Consequently, every unit that impacts student life must be incorporated into an enrollment management strategy model. In many cases, enrollment management must incorporate multiple strategies that may impact student populations and programming that fall outside of the traditional enrollment management unit. If strategies are not coordinated across function units, units will compete for limited resources, and consequently enrollment goal outcomes. Thus, management leaders control processes most critical to management of significant enrollment populations as well as be placed in a cabinet level position to best facilitate collaboration across the organization.

This section of the analysis will examine RCU’s current enrollment management structure, the functionality of the structure, and areas of success and opportunity. Data was collected through documents obtained from RCU as well as analyses of qualitative data. The construct of organizational structure was assessed by presenting the following questions to staff interviewees:

- Describe the role of your functional unit in the recruitment and admissions processes.
- What are the strengths of the RCU recruitment process, the application process?
- What opportunities does RCU have to improve enrollment management processes such as recruitment and application?
- How does RCU track student enrollment processes and student application characteristics?

RCU modified the organization of the enrollment management during the pendency of this research project. At the outset, the executive director of enrollment management oversaw his staff, the admissions office, and the office of recruitment. At the end of the study, the Office of Financial Aid was also moved into the Enrollment Management unit. The current Enrollment Management structure at RCU appears below.

Fig 16: High-Level Organizational Structure



The enrollment management design at RCU primarily attends to new freshmen student populations. Recruitment and admissions of transfer students is handled in the Office of Continuing Studies. While the scope of this study focused on traditional new freshmen markets, the quantitative data indicate RCU loses over 21% of its applicants to a two-year public university. Over 63% of those applicants enroll at a state community college, with State Community College 1 being the largest competitor. While the primary focus of RCU may be to yield these enrollments as new freshmen, these institutions that could serve as transfer institutions. Such transfers to RCU, could be considered a “delayed enrollment yield” and constitute a population of opportunity for RCU. Given the students already considered RCU as a college option, this group may be more inclined to consider RCU as an option. However, given the current organizational structure, it appears little data, communication, or recruitment efforts are shared between these RCU units.

Opportunities to better coordinate functions within the context of the traditional new freshmen population may also be warranted. While integration of function areas primary to enrollment management - new freshmen recruitment, admissions, and financial aid, is a positive development - staff reports suggest opportunity exists to increase communication and coordination across these areas. All staff noted concerns about services the student recruit or applicant receive along the way and how negative experiences may impact the applicant’s

decision to attend RCU. One staff member observed that it takes somewhat more than a visit to retain applicant interest:

“With the school visits and on campus events we do we do a pretty good job at generating applicants I think we lose them after they get admitted or before they get admitted if it takes a long time for them to hear they have been admitted and after we get them we may not do enough to keep their interest.”

Staff members prided themselves on being student-centered and providing opportunities for one-on-one communications. Managers must find ways to prioritize this type of activity if it is to remain a point of pride. Some adjustment to the tour process may also be necessary to ensure that it is optimized as a recruiting tool, since staff invariably recognizes its significance:

“We pride ourselves on our campus visit.....that’s what we’re all about, we’re all about that personal touch.”

The staff generally agreed that the quantity and quality of contact with prospective students was crucial to getting students to commit to RCU. The campus visit, specifically how it communicated the student-centered orientation and “family” environment of the institution, was central to employees’ perception of what convinced students to attend. The quantity and quality of contact with individual students, identified as important in the statistical analysis, is reinforced by organizational staff as a vital element in getting students to enroll. Additional themes that emerge from these interviews include the importance of communication and coordination between departments in providing service to students and the deleterious effects of lapses in the “hand-off” between departments in providing services to students. Similar to a relay race team, delays in the exchange of the “information baton” result in leakage in the applicant-to-enrollment process.

The “handoff” points from counselor to admissions to financial aid are typically where students are lost and staff members cite follow-up as an area of concern within the recruitment staff. Cross-training in the group and development of a unitary rather than “siloes” perspective can substantially improve the seamless transition of prospects from inquirer to student. In essence, contact points from University personnel to potential applicants are recognized as essential to building relationships with applicants. Several staff members discussed their perceived barriers to retaining interest in applicants from application to matriculation. Comments included,

“Our strength is that we meet with students one on one. Our weakness is our follow through, after the point that students apply.”

“Need to take a hard look as to what they are doing and not doing. I’ve called [another enrollment management department] and it has rang 16 times.”

While staff members understood how structures dictate separation of tasks, staff members repeated suggested that the student consumer may not understand, or be frustrated by the discontinuity. One staff person exemplified a frustration typical of many when dealing with an applicant,

Yes I worked with Suzy... but I'm sorry that I have to look up the application because we don't have access to that information on the [computer] system."

Findings of staff interviews suggest minimal cross-training in functional areas and a certain lack of understanding of the services each unit provided to the applicant. Cross-unit communication appears to be hampered by these conditions, and there is a distinct lack of knowledge surrounding the "ever-changing environment" of financial aid, to the extent that organizational members outside of this function are extremely reluctant to answer questions on this topic, and direct all such inquiries to the office of financial aid. This limited knowledge of functions beyond one's own task set causes problems in the "hand-off" of prospects between units. Academic counselors who were interviewed voiced concern about the impact of this particular problem on ensuring that students' questions about next steps are answered in a timely and accurate manner, and ultimately on the enrollment decision.

Staff members understood their roles clearly but did not exhibit a cohesive strategic direction beyond "increasing enrollment". Cross-functional communication and understanding does not exist to the extent needed in a well-functioning enrollment management organization, and no clear, common critical success factors emerged from the interview process. The admissions counselors are singularly focused but also have the most focused objectives. The organization could benefit from development of a cross-functional, process approach to enrollment efforts in which counselors, admissions personnel, and financial aid group members operate in cross-functional project teams. Some of the lack of understanding could be the result of change, as one staffer noted:

"We've had a lot of changes on both the admissions side and the recruitment side within the last 2 ½ years"

RCU staff members do not express confidence that the current structure of the unit provides leverage to impact these decision factors. While there is some limited cross-training among areas within the enrollment management office, the tasks of recruiting, advising through the admissions process, and developing financial alternatives are viewed as relatively discrete processes. There is no blame attached by one individual or group to any other, and all of the interviewees intimated that personal relationships between staff members were good. But the office seems to lack the level of cohesion identified by Kalsbeek and Hossler (2008) as essential to creating a seamless enrollment process.

Structure has important implications for how strategy is implemented. Hrebaniak (2005) notes that structure affects outcomes with, for example, a process specialization increasing efficiency but reducing flexibility while conversely a "purpose" specialization increases costs but

its more flexible and customer-focused, increasing effectiveness. Further, the level of centralization/decentralization must be balanced to ensure that a unit can optimize efficiency and effectiveness. The enrollment management unit must analyze its strategy –within the context of the institutional mission – so that it optimizes these often competing concepts. The drivers that must be evaluated include strategy choice, the relative importance of efficiency and effectiveness, market and technological relatedness, and organizational size and growth trajectory (Hrebieniak, 2005). Bontrager (2007) notes that tradeoffs for higher education institutions extend to considerations such as access, student ability, and student demographic and socioeconomic backgrounds, among others.

At its core, enrollment management requires research and cross-unit collaboration to identify and maintain successful recruitment and retention strategies (Goff and Lane, 2008) and alignment with and between disparate units within the organizational structure are essential. This type of is critical to ensure that all organizational members have a clear understanding of the unit mission, its relationship to the institutional mission, and of the challenges that confront the organization in meeting its goals (Kalsbeek and Hossler, 2008). Additional realignment to a project team structure (described in more detail in recommendations) can contribute substantially to achieving this level of integration.

Realignment provides the opportunity to create cross-functional teams that create a seamless transition between steps in the enrollment process, but maximal efficiency and effectiveness will be achieved if this integration is extended to project team development at the director/manager level between enrollment management functions (i.e. recruitment, admissions, and financial aid) and institutional research so that new information and feedback is maintained within the SEM knowledge base.

It is also important to note that recruitment of first-time freshmen is essentially a zero-sum game; and given the demographic trends described in the application analysis, the university will be well-served by a detailed examination of options to provide services to transfer students, working adults, and other non-traditional student populations. An initiation and continuous improvement of services to these populations will be extensible to the changing traditional student population beyond 2020.

The general atmosphere is recognized as one in which staffers can talk freely with leaders within units, but this has not translated into a shared, focused strategic direction. An increased level of formal collaboration would improve this situation.

Data Analysis and Understanding the Market Environment

How institutions respond to the student choice process may directly or indirectly influence both their search and consideration of an institution and their ultimate college choice. Within their classification structure, Terenzini and Cabrera (2001) link factors within each of the three student choice phases to a number of outcomes that institutions may influence during the corresponding institutional phases of planning, student communication, and student selection phases. A critical element of strategy implementation in general is strategic funds programming (Fleisher and Bensoussan, 2002). Strategic funds programming links resources and budget allocation to strategic priorities and defines the realm of the “possible” for an organization. This framework for tying budget to strategic planning is essential to mitigate the gap that frequently surfaces between formulating and implementing plans. Beyond this key step Bontrager (2004) offers a specific framework for implementing the SEM cycle. These steps help the organization identify academic success strategies at key points in the student life cycle from inquiry to graduation; and also provide a roadmap for how operational strategies and tools can be applied to support students and organizational staff throughout the process. Bontrager’s phases of implementation include:

- Clarify Goals
- Conduct Research
- Create a SEM Organization
- Assess Staff Resources
- Review, Renew and Initiate Campus Collaborations
- Assess Strategies
- Evaluate and Adjust

Establishing an accurate picture of the applicant and competitive environment is critical to establishing practices that might positively impact enrollment yield. Parts I and II of this report provided a picture of RCU’s competitive market environment and suggested indicators that may predict student enrollment, such as campus contact, financial constraint, and proximity of high school home to the RCU campus. Bontrager (2004) identifies the importance of establishing data rich conditions to analyze and assess characteristics of the institution applicant pool in comparison to the conditions of the available higher education market. Data are critical to ascertain where RCU ought to focus recruitment resources as well as direct market opportunities to expand outreach and improve market position, assessment of institutional brand image, and execution of marketing, recruitment and retention activities to achieve enrollment goals. This section will briefly review the findings of yield analysis data offered in Part I and consider how the data may guide enrollment management activities. The section will also offer observations and offer questions RCU may consider to improve data collection and utilization at their institution.

All organizations are ineluctably tied to the demographics of the environment in which they operate, but the typical public university is most acutely affected by these factors because of the financial and academic qualifiers that frame its market. Demographic trends have huge

implications for expectations concerning enrollment patterns, potential yield, and revenues to sustain institutions of higher education. This section will consider three factors identified as significant in the RCU enrollment yield analysis: identified cost (published tuition) and financial aid, perceptions of selectivity and academic quality, and student support.

RCU has a significant opportunity to create and maintain an integrated enrollment management program that will establish metrics that can be monitored, evaluated, and adjusted to inform recruiting, admissions, and financial aid practices that will go a long way toward not only optimizing its enrollment but also identifying and attracting a student body that will be successful at the institution. The first step in this process is to develop a deep understanding of its applicant pool. Institutions may be able to impact these student choice outcomes and the students' ultimate decision through enrollment management strategies that amalgamate and analyze institutional data to gain insights as to what correlates are most likely to impact student choice at their institution. In order to conduct such analysis, institutions must collect and consider a broad range of metrics to assess student characteristics, student movement across recruitment states, student demographics, yield rates based on marketing efforts, examining market shares, and financial metrics (Bontrager, 2004). Furthermore, qualitative analysis may provide institutions with depth of understanding about how institutional practices impact the student choice process. Determining correlates that may influence student institutional commitment and registration may advise policy and programming related to marketing strategies, student recruitment and advising, and student support processes that facilitate transfer of information to the student (Hossler and Bean, 1990).

The competitive environment and yield analysis discussed in Part I of this report as well as the student choice factor data presented in Part II provided a first step to understanding data needs and marketing opportunities for RCU. Linking these data to enrollment management goals and strategies can improve both efficiency and access, and when tied to information on pricing, net revenue analysis, student demand, and capacity greatly improves enrollment management effectiveness. The analysis established not only key findings, but also observations about the data required to sustain enrollment planning that is data driven.

For example, a number of findings presented in Parts I and II of this analysis suggest strategies that RCU may pursue to increase yield. The environmental scan conducted in Parts I and II of this study indicated University D, University E, University F, and the SCCS are the four major competitors for RCU's applicants within the state, whereas University A and University B also account for a substantial number of applicants and beyond state lines, University H and Universities K, L, and M figure also. Both students who enrolled and did not enroll at RCU cited academic programs and availability as important factors to their college choice decision; however, students did not perceive the institution's academic quality to be less than any of the top competing institutions. There was an almost unanimous lack of attention paid to faculty of any institution in a decision. Rather, students indicated that the value of the RCU degree in relation to occupational choice influenced their decision. RCU may utilize student contact opportunities to influence student decisions by better identifying student expectations of their

college experience (e.g. value of the degree as measured by occupational success) and aligning messages to those needs. Furthermore, RCU may examine enrollment management processes to provide applicants with a seamless application to matriculation experience.

Yield rate within the service region is 55% higher than the yield rate for in-state applicants outside of the service region; it is also much greater than yield rates from surrounding states. A decision must be made as to whether the institution has optimized yield from this region and should concentrate resources elsewhere, or if there is an opportunity to increase its penetration of the service region. Additional detailed yield analysis will allow RCU to segment its applicant pool and more effectively target small groups for contact, marketing, and other recruitment activities.

A significant proportion of applicants enroll in the State community college system (SCCS), and a large proportion of those enroll at State Community College 1 (SCC1). Further analysis of this group could supply information on developing partnerships with these institutions to increase transfers enrolled from this applicant segment. Again, collaboration across functional unit of admissions, financial-aid, and adult student recruitment may serve to develop new transfer student recruitment efforts.

Financial considerations dominate the decision process for most students interviewed. On the higher achievement end, students tend to select the best financial packages offered to them, while lower achieving students, who tend to be from lower socioeconomic backgrounds, rely heavily on all types of financial support (federal, state, and institutional) available. In the case of high achieving students, staff interviews revealed a perception that RCU lost some student to other institutions because students received information about scholarship and financial aid too late in the process. For these students developing processes to inform students early on of their financial aid packages, may influence student decisions. Alternative strategies may be useful for all students, especially low income students. Within the yield analysis and environmental scan, RCU emerged as an institution whose graduates have lower student loan debt amounts. When compared to its primary competitor group, within the state, and surrounding states, RCU emerges as a relatively low-debt option and could position itself as such to an increasingly cost-conscious market by emphasizing the accumulated level of debt that typical graduates incur at the institution.

For all groups, cost, financial assistance, and expectation of financial assistance were standard in response to the importance of financial considerations as a factor. The level of awareness of the process is not high among students, and the level of expectation does not match reality. However, group members noted that parents are becoming increasingly aware of financial aid opportunities, and even somewhat demanding in their pursuit of financial assistance. In spite of this trend, questions and concerns about financial aid are uniformly directed to that office, as enrollment management workers exhibit a low level of confidence dealing with financial aid questions. Particularly interesting was the observation of expectation for assistance among low-achieving and high income groups – both parents and students; showing a disconnect between increasing belief that attending and completing college is

important and willingness to view it as investment worthy of personal expenditure. Regardless of income level, parents and applicants are placing ever-increasing demands on the financial aid office and other organizational members currently do not feel equipped to help in this area.

External influences are important to the student choice decision; however, it is not clear as to where RCU should place its outreach resources. Parents remain as a primary influencer in the college choice decision. Students cited parents frequently as major influences in the decision, even among first generation students. Staff members also note that the safety and community feel of the RCU campus tends to appeal to parents as much or more than to their college-age children. Programs that involve parents may be difficult to implement but certainly provide an additional avenue for exploration. Conversely, staff identified counselors as an important influencing source. Yet, student perceived the opposite to be true. The majority of students regarded this influence as neutral. Contact with parents, through the dessert receptions, information sessions, etc. may be prioritized, also providing direct support for school guidance counselors can help occupy mind space with that potentially important segment. Reaching such a large community with regularly updated, relevant, and meaningful information is a challenge but a website dedicated to providing information to counselors can effectively leverage technology to increase the impact of this effort.

Outreach programs that included campus visits (e.g. the language arts festival) were cited by both students and non-enrolled applicants in their descriptions of contact with the university prior to the enrollment decision. While it is not clear how these programs might ultimately affect the enrollment decision, it is one factor that is under the control of the university and can be shaped to contribute to enrollment efforts.

Outreach programs were not well understood by the staff, and though they may well exist, are likely not clearly communicated to prospective students through the admissions counselors or other enrollment management staff. Although some programs were noted, this area seems by-and-large untapped as a mechanism to promote the RCU campus. Given the centrality of the campus atmosphere, high-touch environment, and the campus visit to the enrollment decision, it would behoove the enrollment management staff to be trained in collecting information on all available programs for pre-college youth and disseminate this information to high schools in their territory; this would also be facilitated by the counselor website. An analysis of how dual credit options are communicated to, and understood by, high school students can also be used to ensure that this option is aligned with enrollment management goals.

The recommendations that follow offer five recommendations including establishment and administration of an institution-wide and comprehensive Enrollment Growth Delivery Plan that is based off of institutional mission as well as institution, regional, state, and market data and opportunities; identification and establishment of data metrics, collection, and analysis processes to improve institutional understanding of enrollment choice predictors, points of impact most likely to improve yield, and an understanding of RCU's position within the competitive market; leveraging the reorganization of the Office of Enrollment Management to develop policies, procedures, and staffing solutions to create an applicant-center application,

admissions, and financial aid processes and programs; assess and re-design recruitment messages to ensure information provided to students aligns with factors driving enrollment choices. Questions that will be considered include:

- How can RCU develop a mission and strategic plan to attain enrollment management goals through a delivery chain that is clear and assigns accountability across multiple function areas?
- What should RCU's Enrollment Management structure look like? What players are required to build a sustainable and comprehensive EM Strategy?
- What data is required to sustain an ongoing and strategic enrollment management strategies? Once identified, what marketing and program interventions may be implemented to move the "enrollment goal needle"? How will data systems help RCU assess success?

Limitations

A number of limitations associated with each distinct part of this analysis must be identified. In Part I, the data acquired from the National Student Clearinghouse (NSC) Tracker Service is somewhat less than 100% of all applicants who enrolled at another institution. Because of blocked and missing data, we cannot determine the precise percentage, but can assert that it exceeds 85% of the applicants who eventually matriculated at another institution.

The quantitative data used in Part II of the study was derived from three distinct institutional sources and could not be corresponded, one-for-one, with the entire three-year applicant pool. While the 4,882 matches made between ACT student profile data and the full data set allowed for meaningful analysis, this limited the extent to which RCU could be compared to individual institutions on the set of variables posited to affect the enrollment decision and also limited applicant yield analysis based on these factors to just two years (2009 and 2010). Further, raw data on contact information for the applicant pool for 2009 is not accurate according to RCU employees familiar with this information. The transition between student information systems may have affected the institution's ability to maintain those records. As a result the number of contacts between university employees and students is estimated to be significantly underreported for that year.

Time and geographic constraints limited the number of interviews that could be conducted to support this project. The number of both enrolled and non-enrolled student interviews was smaller than anticipated and interviews of employees across the enrollment management function did not include members of the financial services office, which did not fall under the purview of the executive director enrollment management at the time the study was conducted. Also, non-enrolled applicants interviewed exhibited a higher achievement level (in terms of ACT score) than the general applicant pool and this has implications for the generalizability of findings derived from those interviews. However, these interviews were conducted to support the quantitative analysis and applicant pool analysis and we anticipate that triangulation of this information will yield actionable information for the institution.

The number of interviews conducted with RCU enrollment management staff, while it represents approximately 40% of the entire staff, did not include representatives of the financial aid office as this office did not fall under the purview of the enrollment management office at the time the interviews were conducted. The lack of perspective on the inner workings of this key function impacts the extent to which conclusions can be drawn from both qualitative and quantitative analyses, the reasons for which are outlined below.

The quantitative findings clearly suggest the frequency of contacts may predict applicant enrollment choice; however, based on these findings alone it is difficult to ascertain causality. Is it that a higher number (and better quality) of contacts drive applicant enrollment, or do students who are serious about enrolling at RCU tend to seek out more contact with the institution? Further data is needed to address this question; nevertheless, the impact of frequency of contact is clear. Whether or not students who are more serious about RCU

initiate more contact, both the quantitative and qualitative data suggest that increased RCU-initiated contact could improve the odds that relevant information is transmitted to the student and the likelihood of building an applicant-institution relationship. These factors may, in turn, impact the odds that applicant will enroll at RCU.

Financial constraint did not emerge as a factor in any of the analyses, yet existing literature and qualitative data clearly support financial factors as not just important, but central to the enrollment decision (Manski & Wise, 1982; Paulsen, 1990; Leppel, 1993; Terenzini and Cabrera, 2000; Perna, 2006). It is likely that income in an environment in which college costs continue to escalate at a much higher rate than general inflation and thus is increasing as a percentage of family incomes, families at all income are becoming much more aware of opportunities to garner financial aid, and income is not a determinant in how families approach the enrollment decision, but financial award/assistance is the predominant factor. Information on specific financial award would answer this question, but was not available for inclusion in the data set. This is particularly important to bear in mind when interpreting the results and recommendations that follow.

Recommendations

This project was conducted in response to a request made by RCU requesting a data analysis of its applicant pool and recruitment and admissions processes so as to provide findings to guide development of enrollment management strategies and solutions. The request follows institutional acknowledgment that, despite its high academic standards and retention rates, its ranks sixth of eight public four-year institutions in the state in terms of undergraduate enrollment. Given the anticipated drop in the population of high school age students in the RCU region, RCU seeks to increase its first-time first year student enrollment among the traditional first-time college-going age bracket within the in-state service area and surrounding states. Its initial efforts are focused on improving enrollment management practices to increase its yield rate, which currently stands at 45% according to IPEDS data.

To facilitate development and implement a strategic enrollment plan that can improve enrollment yield rates, RCU seeks to:

- Identify potential points of impact in the recruitment-application-enrollment pipeline where contact with prospective students may increase yield
- Define factors that influence students' decision to attend/not attend RCU
- Measure and monitor prospect coverage rate to improve enrollment management efficiency and effectiveness
- Identify new and sustainable prospect populations

This study served to provide RCU with data and analyses to advance the institution toward its enrollment management goals.

Part I of the study identified RCU primary competitors and analyzed where the institution may be losing applicant-to-enrollment yield based geography, institution type, and cost of attendance. These findings advise the recommendations in terms of applicant/enrollee populations of opportunity. In part II, the study further identified key student choice factors as well as enrollment yield characteristics that suggest RCU may advance its enrollment goals. When considering campus-to-applicant contact, student data suggest that not only contact frequency, but contact quality may influence student decisions all along the recruitment-application-enrollment pipeline. Furthermore, the quality of the student experience between submission of the application and the students' decision to enroll may be altered based on the students' ability to access timely information about the status of their application or their financial aid award. Also, post-application pre-enrollment correspondences and events continue to serve as important recruitment experiences to students. Whereas positive experiences may create student perceptions that the institution values them, negative experiences may contribute to a student reconsidering their choice of RCU as a college option.

An examination of RCU enrollment management structures and processes, in Part III, suggests that a number of strategic and operational measures may be taken to positively impact the campus-to-student communication experience. The foundation of an organization

is the mission and institutional vision that drive goals, strategies, and objectives at the departmental level. Recommendations in this section will focus on how to establishing clear and common understanding of institutional mission and goals and connect those goals to enrollment management goals in ways that can be evaluated and prioritized.

Recommendations will also focus on how organization structures may be developed to facilitate collaboration and cooperative advancement of enrollment management goals across the institution. Over the past two-years, RCU significantly reorganized its enrollment management division to bring the full scope of recruitment and admissions services under one roof. Recruitment and Admissions Offices are now located within the same management unit. In January, the Office of Financial Aid also came within the authority of Enrollment Management. A shift in organizational structure and a melding of management cultures can provide RCU with the opportunity to coordinate functions and retrain staff to provide student applicants with a seamless path from application to acceptance to enrollment. In addition, findings also indicate that opportunities for collaboration across functional units may enable RCU to not only improve service to the new “traditional” student applicant, but also to a potential market of non-traditional or returning students.

Finally the processes and methodological challenges faced in the data collection process of this study lead to recommendations regarding the metrics required to assess enrollment management outcomes at RCU, along the student recruitment – application – enrollment pipeline.

Enrollment Goals, Institutional Goals and Mission

1. Establish and administer an institution-wide and comprehensive Enrollment Growth Delivery Plan that is based on the mission of RCU as well as institution, regional, state, and market data and opportunities.

While all RCU staff interviewed were aware of general idea behind the mission of the institution as well as the institution’s goal to increase student enrollment to 12,000 by 2012, none were clear as to how that goal was to be accomplished or their specific charge in advancing that goal. It appeared that enrollment outcomes were linked to personalized goals; however, those goals did not specifically tie back to clear departmental or institutional goals. Therefore, the first recommendation is that RCU conduct a cross-function/department enrollment management strategic planning initiative so as to create an enrollment growth strategy that is grounded analysis of the current student market, institution position, which includes academic program capacity, and establishment of department based goals that feed into institutional enrollment growth goals.

Building an enrollment growth strategy from the department level up is important for two reasons. First, activities to advance an enrollment growth strategy will require

collaboration across multiple departments and units. For example, admissions into certain departments may be dependent on capacity and that capacity is dictated by an academic unit rather than in an administrative unit. As well, conversion of an accepted applicant to an enrollee may be improved through faculty to student contact or through other strategies that involve student life, or the residence halls. Jonas and Popovics (2000) suggest that institutions must develop an enrollment management organization that engages participation in the management process from across higher education functional units. Campus wide participation is essential, he argues to develop accurate analysis, goal projection, departmental commitments, and institutional commitments.

Second, a number of operational factors exist at the department level that may impact the department's ability to yield more enrollments (i.e. academic program capacity, staffing, design of recruitment practices, student contact protocols, etc). Departmental managers will have the greatest ability expertise to assess what strategies may likely generate the greatest yield improvements. This same expertise may serve to best identify metrics in which the institution can more specifically measure success of outcomes and more precisely identify where in the student choice pipeline the impact occurred.

Building a strategy from the department or unit level up will also provide greater ownership of the goal and outcomes development. This factor may be of particular importance to the Office of Enrollment Management, not just because its function is central to enrollment growth, but because it recently incorporated two, previously external offices. Building an enrollment growth strategy from the bottom-up will improve the legitimacy of the process by creating a shared understanding of the department goals and each unit's responsibility within the process. Creation of shared meaning and understanding of program goals is particularly important within the industry of higher education that is accustomed to collegial models of management (Birnbaum, 1999; Mactaggart, 2009). Birnbaum also suggests that while this process may produce slower change, it can be preferable to a top-down model in that the outcomes may be more sustainable.

The following activities may serve to advance an institution-wide enrollment growth strategy:

- A. Establish a RCU Enrollment Growth Delivery Team, appointed by the president, and charged with the following tasks:
 - 1) Serve as representatives and experts from their respective department or function area;
 - 2) Establish an applicant to matriculation student flow model to identify potential sources of new student applicants and track applicant progress, yield and loss through the trajectory;
 - 3) Based on the student-flow model, establish and communicate an institution-wide Enrollment Growth Plan.
 - 4) Monitor applicant to matriculation trajectories and utilizing findings of this report as well as institutional research to identify points student loss;

- 5) Collaboratively identify specific cross-function actions or activities that may mitigate student loss (e.g. development of new RCU programs such as alumni – student career planning programs that utilize RCU alumni as career mentors for RCU students.)

Suggested membership may include faculty or staff from academic departments and functional units such as:

- Member of the Board of Regents;
- Academic Affairs, including representation of academic departments with the greatest degree yield or the greatest growth potential;
- Office of Enrollment Management, including representation from all three functional units;
- Office of Continuing Education, including representation from the adult and transfer student admissions;
- Alumni Affairs, including an alumni representative;
- Institutional Research;
- Budget Office;
- Student Support Services, including a student representative;
- Housing;
- Public Relations;
- A representative from the regional economic development district(s).

- B. Request each School, the Office of Enrollment Management, and the Office of Continuing Education to establish application, admissions, and enrollment targets over the next five years that are based on population and demographic trends of both the traditional, non-traditional, and international student base as well as the anticipated labor demand.

Departmental and Unit and Structures

2. Leverage reorganization of the Office of Enrollment Management to develop policies, procedures, and staffing solutions to create an applicant-center application, admissions, and financial aid processes and programs.

By moving both admissions and financial aid functions into the Office of Enrollment Management, RCU recognizes the importance of providing a seamless experience for its applicants. This merger provide an opportunity for RCU to review staffing and work flow so as to reduce the amount of time between submission of an application for admission or financial aid and approval, improve applicant satisfaction and confidence by improving RCU’s ability to respond to student inquiries, and redesigning admission counseling communication with students and applicant programming to ensure students 1) information provided to students

aligns with student choice factors that are important to the student; and, 2) establishes additional means to communicate with students who are at risk for non-enrollment.

A. Develop cross-functional project teams from admissions, recruitment and financial aid.

Teams consisting of an admissions counselor, admissions officer, and financial advisor can mitigate problems associated with the “hand-off” of prospects between functional areas. Creating staff specialization within an environment that is focused around customers, and providing a set of services to applicants may improve the likelihood of that a student will matriculate than if individuals are provided with silos of services (Hrebeniak, 2005). Project team structures that cut across these functional lines will provide a faster, more streamlined service to a student group, will be more cohesive, and will result in organization members that are much more attuned to the services provided at each step of the process (Gray and Larson, 2006). Specifically, strategies include:

- 1) Team cross-function employees such as admissions counselors, application specialists, and financial-aid specialists by geographic region so that staff may communicate about a common set of applicant cases and applicants may have direct employee contacts at all stages of the application process.
- 2) Providing employees equal access to all financial and admissions applications and data in Banner so that information and data is accessible and available to the individual communicating with the applicant, thus reducing occurrences that an applicant must be transferred to another employee; thereby, reducing student wait time as well as reduce additional employee time to re-contact the applicant.
- 3) Provide training to all employees to ensure shared understanding of Office of Enrollment Management and RCU policies, procedures, goals, outcomes and standards of customer service.
- 4) Create a knowledge and skills inventory of functions and responsibilities across functional areas to support the team structure and facilitate succession planning event of staff turnover.
- 5) Training staff teams across function areas so that employees have sufficient training to provide answer general questions outside of their specialty area and enable staff to provide back-up to team members when needed.

B. Create managerial-level cross-functional project teams from admissions, recruitment, and institutional research staff.

Project teams can also be effective at the managerial level. The core of the enrollment management system described in previous sections is actionable data, and thus Institutional Research is an indispensable function to its success. The enrollment management team must have timely, accurate, and digestible

information with which to update models, create new models, and inform decision making. It is essential that a director-level team manages this effort across the functions of recruitment, admissions, financial aid, and institutional research.

C. Identify and contact targeted student accepted application populations who are at risk for non-enrollment.

1) Students at risk for enrolling within the State community college system (SCCS).

SCCS serves as the single greatest drain on RCU enrollment yield. Interview data suggests that students select a SCCS school either as means to reduce costs or because they wish to only pursue and associate degree. Developing specialized marketing materials for this at-risk population may ensure that they receive accurate information regarding the cost of attendance, receive information regarding financial-aid and scholarships, and inform students of associate degree programs available at RCU and the value of that degree should they determine they wish to pursue a bachelor degree in the future.

2) Contact with underrepresented student populations: Yield rates for African American student applicants are far lower than yield rates for general applicant pool. RCU currently implements specific programs oriented to this student population; however, student enrollment choice may be driven by the student's overall perception of the RCU campus climate. Therefore, all programs and processes should be evaluated to ensure they are inclusive of experiences and information important to students of color.

D. Establish standards and guidelines to dictate appropriate time lapse between student submission of an application for enrollment or application for financial aid and notification of acceptance or award.

The timing of dissemination of both acceptance and financial aid award information may impact student enrollment choice. Students who do not receive notification of acceptance or financial-aid awards in a timely manner may be more likely to select another institution. As well, first generation students who have little support in the financial-aid application process, if informed of financial aid after certain college-related decisions have already been made, may be less likely to attend enroll in any institution of higher education (Perna, 2006). RCU may establish processes and standards to reduce the potential that students will not-enroll at RCU due to a lack of admission or financial aid information.

Data Analysis and the Institution, Market, and Applicant Environment

- 3. Assess and re-design recruitment messages to ensure information provided to students aligns with factors driving enrollment choices, in particular factors relating to the value of a RCU degree relative to its competitors.**
 - A. Collect, synthesize, and disseminate career placement data to potential applicants.
 - B. Disseminate information about career services offered at RCU.
 - C. Utilize RCU alumni to disseminate messages regarding the return on investment they received for their RCU degree.
 - D. Assess, re-design, and evaluate student programs and related to applicant related events. Examples include,
 1. Scholarship award events: By moving scholarship award events and recognizing earlier in the calendar, RCU will have an additional opportunity to welcome recipients to the RCU community. If timed appropriately, students will receive this opportunity prior to making their enrollment decisions, thus increasing potential that the student will select RCU.
 2. Campus Visits: Ensure uniformity and quality of the campus visit through evaluation of current design, modify programming to improve applicant satisfaction and train and “professionalize” student ambassadors who provide campus tours.
 3. Summer Orientation and Registration: Ensure adequate staffing to reduce student wait time for registration or redesign programming to reduce perception of wait time for enrollees.
 - E. Explore opportunities to market RCU as a low-debt option in relation to competitors and within its regional footprint based on national statistical data. While cost is frequently cited in the literature as a critical factor in the enrollment decision, it can be difficult to define and can be interpreted differently depending on the components used to define the “cost” of higher education. An unambiguous measure of the financial requirements to complete a degree is outstanding debt upon completion. In this regard, RCU compares favorably to in-state and out-of-state institutions within its region. Clear communication of this bottom line financial measure to applicants and their parents could provide an avenue for the institution to convey a positive price/value relationship without focusing on tuition, avoiding the risk of becoming identified as a “low-cost provider”.
- 4. Explore new markets. Establish methods and metrics to capture “delayed” enrollment yields of students lost to in-State Community College Schools through cross-departmental collaboration and data sharing.**

While it is inevitable the RCU will lose accepted applicants to the SCCS, there exists potential that these students could return to RCU upon the completion of their associate degree, or earlier. The institution may establish marketing strategies and methods to draw these students back to RCU. Strategies may include:

1. Designing marketing materials specific to student who choose to enroll at SCCS to provide positive messages about their choice and resources and information to inform the student of their transfer options upon the completion of their associate degree.
2. Collaborate with the Office of Continuing Education to share applicant data and establish metrics that enables the institution to track SCCS students who were also accepted to RCU.
3. Develop metrics to track and capture “delayed” enrollment yield rates.
4. Build SCCS student engagement with the RCU campus by establishing programs that welcome SCCS students who were also accepted at RCU to spend time on the campus and access library and computing services. Where feasible, establish articulation and dual enrollment agreements with SCCS schools to formalize student relationships.

5. Identify and establish data metrics, collection, and analysis processes to sustain data driven enrollment management strategies.

While the findings of this project may serve to suggest potential sources of new applicants as well as advise student enrollment trajectories and points of impact, many analyses and findings were limited due to missing data or exclusion of important metrics that may better explain student non-enrollment trends. To advance its enrollment management strategy, RCU may:

- A. Establish and maintain merged data sets to house applicant pool information and make such information more readily available for analysis.

Decisions are only as good as the information on which they are based. Adjustments in strategy and policy must be informed by accurate and timely information and the university’s enrollee/lost admit database can provide that information. The enrollment management data services individuals, in conjunction with members of the institutional research team should update their database on a semester basis with applicant information, enrollment information from the National Student Clearinghouse, and ACT student profile data. This information will allow monitoring of any change that occurs in factors that affect the enrollment decision. Additional required elements of this system include:

- Creation of an information management system that makes this practice sustainable

- Creation of feedback mechanisms to evaluate and adjust strategies as needed that aid identification of trend data to inform recruitment, communication, and pricing strategies
 - Connection of recruitment and retention to develop a database that allows the institution to match factors that drive enrollment and retention/attrition. This will allow the enrollment management office to identify and pursue eligible applicants with finer granularity of communications and services
 - Adoption of a similar approach for monitoring transfer and adult student populations
- B. Define and establish data metrics critical to assessing applicant to matriculation student flow.

Outcome based enrollment management practice assessment must take place in a data rich environment (Bontrager, 2004). Recommendations under this finding will address metrics relating to student applicants; however, similar metrics, if attainable, may be useful to collect for the prospective student base, as well. Among the applicant measures utilized in this analysis or missing from this analysis that may be relevant to enrollment management are:

- 1) Characteristics of prospects: Race, age, geographic region, local, academic area of interest, career interest, family income, parental education levels, ACT score, high school, GPA, enrollment choice factors identified by the ACT student profile;
- 2) Other institutions applied to;
- 3) Recruitment Stage;
- 4) Student contacts disaggregated by type of contact including correspondences with admissions counselors, admissions, staff, financial aid clerks.
- 5) Application submission date, review date, acceptance date and student notification date;
- 6) Financial aid application date, award date, student notification date;
- 7) Amount of financial aid awarded, disaggregated by award type;
- 8) Institution of enrollment;
- 9) Matriculation date;
- 10) Degree program enrolled in.

In addition to enrollment yield rates, a number additional yield rates may help to establish and assess enrollment management outcomes. Examples of such metrics include:

- 1) Yield rates as measured by percentage of students moving from one recruitment stage to another (e.g. perspective, applicant, accepted applicant, accepted admission, registered, enrolled).
- 2) Yield rates disaggregated by specific target groups (e.g. program of study, race, high school, geographic area, type of high school, age, transfer, international student, etc).
- 3) Percentage increase or decrease in aggregate or by specific target groups;
- 4) Market share
- 5) Time lapse between application submission and admission notification;
- 6) Time lapse between application submission and financial aid award;

Conclusion

Recent realignment has provided RCU with an opportunity to develop and implement a comprehensive and institution-wide enrollment management strategy. In addition to top rated academic programming, RCU staff interviewed are clearly dedicated and committed to the institution and its students as well as to developing processes to improve enrollment yields across the campus. As an institution, RCU seeks to define factors that influence students' decision to attend/not attend and identify potential points of impact in the recruitment-application-enrollment pipeline where contact with prospective students may increase yield. Furthermore, RCU desires to implement enrollment management practices and structures that enable it to measure and monitor prospect coverage and implement management strategies to support activities to redirect more RCU applicants toward enrollment. Finally, the institution desires to identify new and sustainable prospect populations.

To advance these goals, this project conducted a three part analysis. Part one examined the RCU applicant pool to identify student enrollment trends. This analysis identified RCU's top competitors as well as the characteristics of the competitive market. Part two of the analysis examined student choice characteristics and enrollment predictors for RCU in their region and in comparison to other institutions. Analysis revealed factors relevant to students' decision to enroll at RCU and qualitatively triangulated these findings with interviews conducted with enrolled and non-enrolled student applicants along with findings from the literature.

Findings of this analysis identified a number of institutional practices and strategies that correspond to student choice. Clear articulation of the institution's mission can help define the image and message the institution wishes to portray and direct its activity toward the specific student populations it hopes to serve. Unified goals based on this mission, and implemented across function areas may cement an institutional plan to advance enrollment growth as well as identify and target new student markets, and extend its reach in current student markets. Structure and coordination of departments and staff within the purview of enrollment management may significant impact the quality of the student contact experience with the institution. Leveraging reorganization provides the organization with opportunities to both quantitatively and qualitatively improve communication with applicants. Finally, continual analysis of enrollment metrics of RCU applicants in relation to the competitive market as well as using data to accurately identify enrollment choice factors most critical to the student applicant pool will position RCU to develop recruitment content, identify new applicant populations of opportunity, and organize recruitment resources to improve yield as the applicant pool changes.

Appendices

A. List of Institutional Abbreviations and State Location

Abbreviation	Institution	State
UG	University G	State 5
UA	University A	State 1
UB	University B	State 1
RCU	Regional Comprehensive University	State 1
UC	University C	State 1
UH	University H	State 4
UI	University I	State 2
UJ	University J	State 2
UK	University K	State 5
UL	University L	State 5
UM	University M	State 5
UD	University D	State 1
UE	University E	State 1
UQ	University Q	State 5
UO	University O	State 4
UP	University P	State 3
UF	University F	State 1

B. Interview Protocols

Appendix #B.1

Qualitative Data Collection – Student Interviews

Student Interview Protocol

Awareness of RCU as a College Option

- When did you first hear about RCU (what grade)?
- When did you first decide to apply to RCU?
- When did you decide to enroll in RCU? [i.e. did the enrollment decision precede the application process]
- How many institutions did you apply to?
- How many institutions did you get accepted to?
- What factor(s) influenced you to choose RCU?

Family Background

- What inspired you to go to college?
 - In response look for: parents, other family member(s), peers, HS teachers, guidance counselor
- Has anyone in your family pursued education beyond high school? Were they able to finish? What kind of certificate or degree did they receive?
- What aspects of your family life have prepared you for your current academic life? Illustrative example?

Financial Considerations /Constraints

- During the process of applying to college, did you feel like you and your parents had a good understanding of how to apply to college and pay for college?
- Did you receive help with the process of applying to RCU? (Parents, friends, guidance counselor, college staff member) Is this representative of how your friends came to college?
- Did you fill out a FAFSA? Is the FAFSA an easy form to fill out? Did anyone help you fill out the form? How frequently do you meet or contact the Financial Aid office?
- What types of financial aid have you received so far? Did the amount of aid you received match your expectations? Those of your parents?
- How do you plan to pay for college?
- Do you currently have a job? How many hours do you work? Is it on or off campus?
- Is the cost of college a burden on your family?

(Social Capital: parental and other assistance)

- Did you understand all of the admission requirements for each institution to which you applied? Did anyone help you to interpret these requirements?
- What are your parents' expectations for you with respect to college? Are they supportive of your efforts and aspirations?
- Did any of your high school teachers influence your decision on college attendance? If so, to what extent?
- Did your high school guidance counselor influence your decision on college attendance? If so, to what extent?
- Do you have a clear idea of your occupational path beyond college?

Academic Fit

- Do the course offerings in your intended major support your intended occupational path? Were these important to your decision?
- Do the research interests of the RCU faculty in your intended major correspond to your interests? Were these important to your decision?
- Does the structure of your intended major position you to attain your educational and occupational goals? If not, what gaps do you see in your program of interest? Were these important to your decision?
- What characteristics of RCU were important in your decision to attend? [Level of interaction with faculty; research opportunities]

Perception of RCU

- Was RCU your first choice for college? Would you have attended a different institution if you received a comparable financial aid package? Which one?
- How would you describe the academic reputation of RCU compared to other schools to which you applied or considered?
- How would you describe the reputation of the faculty at RCU compared to other schools you considered/ to which you applied?
- Do you believe that a degree from RCU is just as valuable to you as a degree from [other schools you considered? Or specific institutions such as UD, UL, UF?

Appendix #B.2

Qualitative Data Collection – Institution Staff Interviews

Staff Interview Protocol

Understanding of Institutional Goal

- What is the mission of RCU?
- Describe RCU's strategic plan...goals and objectives of the institution over the next five years?
- Why do you believe students attend RCU over another university?
- What do you perceive to be the reasons why students choose to attend RCU?

External Awareness

- What kind of student does RCU hope to attract?
- Why do you believe students who apply to RCU do not attend?
- If a student applies to RCU and chooses another campus, in your mind, what institution are students most likely to attend?
- What do you perceive to be the academic areas in highest demand by students who apply to RCU?

Awareness of RCU as a College Option

- When do you first contact high school students with information regarding RCU?
- Who are your targeted recruitment populations?
- How do you think most students learn about RCU?
- Describe the types of precollege programs offered by your institution.
- Describe the types of recruitment practices your institution engages in each year?
- How do individuals within your office participate in the...
Recruitment process (probe for informal contacts as well as formal contact)
Application process
Admission and financial aid process?
Registration process.

Family Background

- What do you think inspires most RCU applicants to go to college?
 - In response look for: parents, other family member(s), peers, HS teachers, guidance counselor

Financial Considerations /Constraints

- What types of financial assistance are offered by RCU?
- How does RCU transmit information about financial aid to its students?
- If an applicant presents a question to you about financial aid availability or their application for aid, how do you respond?
- If an applicant complains to you about financial aid availability or application processing, how do you respond?

(Fin Aid/Admissions Only)

- To what degree do you think your students are aware of financial aid availability at RCU?
- How many applicants request assistance to complete forms?

- What appear to be the primary challenges relating to student receipt of financial assistance at RCU?

(Social Capital: parental and other assistance)

- What types of outreach and training does RCU provide to...
Teachers, HS Counselors, Parents, Others

Academic Program Fit

- What academic areas do you believe RCU holds the great strength?
- How are these academic areas marketed to potential applicants and applicants?
- What outreach do academic faculty and staff provide to pre-college students and RCU applicants?

Perception of RCU

- How do you think RCU compares to the following institutions (list top three institutions in which non-matriculated applicants enroll) in terms of
 - academic programs
 - student support services
 - cost of attendance
 - financial aid award
 - institutional reputation
- How would you describe the academic reputation of RCU compared to other schools in your region?
- How would you describe the reputation of the faculty at RCU compared to other schools in your region?
- Do you believe that a degree from RCU is just as valuable to you as a degree from other schools? Or specific institutions such as UD, UL, UF?

Organizational Structures:

- Describe the role of your functional unit in the recruitment and admissions processes.

(For function areas having direct contact)
- Describe what student recruitment and outreach practices are in place at RCU?
- Describe an “average” student to staff contact experience from recruitment efforts to matriculation?
- When do you believe students should first be contacted by RCU?
- What types of contact do you believe a student applicant should have from RCU?
- How is your functional unit involved in the development and implementation of enrollment management policy and practices?
- What are the strengths of the RCU recruitment process, the application process?
- What opportunities does RCU have to improve enrollment management processes such as recruitment and application?
- What do you believe to be the most critical factors that relate to student choice to apply and enroll at RCU?
- How does RCU track student enrollment processes and student application characteristics?

C. Definition of Data Set Variables

Variable	Field Description	Field content definition	Source
Entry Term	Term for which applicant sought enrollment	Year+term; e.g. 20081 = Fall 2008	RCU Application Data
Stage	Stage in the enrollment process	200 - inquiry; 300 - Applied; 400 - admitted; 600 - enrolled	RCU Application Data
Gender	Applicants gender	Male or Female; M/F	RCU Application Data
Ethnic Origin	Applicant's self-identified ethnicity	Uses Census structure	RCU Application Data
State/Province	Applicant state/province of residence		RCU Application Data
Zip	Appl. Zip		RCU Application Data
ZipDistance	Straight-line distance estimate between RCU and the zip code of the applicant	Estimate of miles between 42071 and applicant's zip code	RCU Application Data
Primary County Name			RCU Application Data
DOB	Appl. Date of birth		RCU Application Data
High School Code	Code of High school appl. Attended		RCU Application Data
ID	ID issued by RCU to appl.		RCU Application Data
ACT Composit High score	Highest ACT composite score for five possible reported scores		RCU Application Data
Admit Date	information from Admissions designating admit type		RCU Application Data
Decision Type	shows the decision made by Admissions, corresponds with Decision Type_Banner		RCU Application Data
Governor's Scholar	Governor's Scholar – yes/no attribute, shows if a student is a Governor's Scholar		RCU Application Data
GSFA	GSFA – yes/no attribute, shows if a student is a Governor School for the Arts student		RCU Application Data
ISOT	ISOT – yes/no attribute, shows if a student was received through In Search of Thoroughbreds (from alumni)		RCU Application Data
Legacy Tuition Grant	Legacy Tuition Grant – yes/no attribute, shows if a student is eligible for the Legacy Tuition Grant, this information is not always tracked in this system		RCU Application Data
Whitney Young Scholars	Whitney Young Scholar – yes/no attribute, shows if a student is a Whitney Young Scholar		RCU Application Data
African American Honors Day	African American Honors Day – date attribute to show if/when a student attended African American Honors Day		RCU Application Data
College Program	College Program – shows counselor that met with student at a College Program		RCU Application Data

Dessert Reception Date	Dessert Reception Date – shows the date a student attended a dessert reception		RCU Application Data
RCU Visit	RCU Visit – shows the counselor that met with a student that visited RCU’s campus		RCU Application Data
Orientation Session	Orientation Session – shows which orientation session a student attended		RCU Application Data
Event 1 Date	Event 1 Date – shows the date a student attended an event 1 occasion		RCU Application Data
Registered for Summer O	Registered for Summer O – yes/no/called attribute to show if a student has registered for Summer O, called used for when a counselor has called the student to remind to register for Summer O		RCU Application Data
School Visit	School Visit – shows counselor that met with the student at a School Visit		RCU Application Data
Event 2 Day Date	Event 2 Date – shows the date a student attended an Event 2 occasion		RCU Application Data
Oncampuscontact	Contact between University employee and student in an on-campus setting	AfAm honors day + RCU visit + racer days date + school visit	ACT Student Profile Data
Offcampuscontact	Contact between University employee and student in an off-campus setting	College program + dessert reception date + school visit	ACT Student Profile Data
Record Found Y/N	NSC located data on student	Y - data returned; N - student found but no data returned; blank - student not found	National Student Clearinghouse Student Tracker Data
College Code/Branch	NSC college code identifier	Information on college/university attended subsequent to acceptance to RCU	National Student Clearinghouse Student Tracker Data
College Name	Name of institution attended	Information on college/university attended subsequent to acceptance to RCU	National Student Clearinghouse Student Tracker Data
2-year / 4-year	level of institution chosen	4 - 4 year or higher; 2 - 2-year; L - less than 2-year	National Student Clearinghouse Student Tracker Data
Public / Private	Whether institution attended is public or private	Public or private F: full time; H - half-time; L - less than half time; A-leave of absence; W - Withdrawn; D - deceased	National Student Clearinghouse Student Tracker Data
Enrollment Status	Status of student at chosen institution		National Student Clearinghouse Student Tracker Data
HSGPA	High School GPA of ACT student Profile student set		ACT Student Profile Data
sureofmajor	How sure respondent is about current choice of college major	1 - I am very sure; 2 - I am fairly sure; 3 - I am not sure	ACT Student Profile Data

sureofoccupation	How sure respondent is about first occupational choice	1 - I am very sure; 2 - I am fairly sure; 3 - I am not sure	ACT Student Profile Data
Apply FinAid	I expect to apply for financial aid to help pay college expenses	Y - Yes applies to me; N - No, does not apply to me	ACT Student Profile Data
Work	I expect to work while attending college and would like help in finding employment	Y - Yes applies to me; N - No, does not apply to me	ACT Student Profile Data
Family Income	Estimate of the approximate total combined income of parents before taxes in the previous year	Less than \$24K - 1; About \$24K - \$36K; About \$36K to \$50K; About \$50K to \$60K; About 60K to \$80K; About \$80K to \$100K; About \$100K to \$120K; About \$120K to \$150K; More than \$150K	ACT Student Profile Data
Collegechoice	College Choice Number	1 = First; 2 = second; 3 = third; 4 = fourth; 5 = fifth; 6 = sixth; S= supplemental;	ACT Student Profile Data
Zipdistlog	Log of the distance between RCU university zip code and student home address zip code		
EnrolledRCU	applicant enrolled at RCU		
EnrolledUF	Applicant enrolled at University F		
EnrolledUD	Applicant enrolled at University D		
EnrolledUE	Applicant enrolled at University E		
EnrolledSCCS	Applicant enrolled at an institution within the State community college system		
EnrolledSCC1	Applicant enrolled at State Community College 1		
EnrolledTop5	applicant enrolled at one of the top five institutions in which RCU applicants enrolled		
Enrolledother	Applicant enrolled at another institution		
Serviceregion	Applicant's home address is within RCU's 18-county service region		

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