LIMITED REACH: THE ROLE OF MISSION AND INSTITUTIONAL AID IN SUPPORTING MINORITY STUDENTS

Mary Catherine Finger

A DISSERTATION

in

Higher Education Management

Presented to the Faculties of the University of Pennsylvania in Partial Fulfillment of the Requirements for the Degree of Doctor of Education 2013

Supervisor of Dissertation

______________________________
Laura W. Perna, Professor of Education

Dean, Graduate School of Education

______________________________
Andrew C. Porter, Dean

Dissertation Committee:

Laura W. Perna, Professor of Education

Shaun R. Harper, Associate Professor of Education

Blake Naughton, Associate Professor of Education, University of Missouri
LIMITED REACH: THE ROLE OF MISSION AND INSTITUTIONAL AID IN SUPPORTING MINORITY STUDENTS

COPYRIGHT

2013

Mary Catherine Finger
DEDICATION

I have been blessed by extraordinary women throughout my life—women whose intellect, ability, and compassion have offered guidance and inspiration. This dissertation is dedicated to three of those women.

To my mother, Jean Leahy Finger, whose unwavering dedication to education has been a constant in my life and in the lives of my siblings. Her personal sacrifice to provide the highest quality educational opportunities for her children and her belief that education is both a right and a privilege have inspired and framed my personal and professional commitment to higher education.

To my friend, colleague, and mentor, Patricia Drogos O’Donoghue, whose life work has been to offer opportunities to students not generally represented in higher education. Whether advocating for the adult woman seeking an educational foothold to provide for her family, the refugee from a war-torn environment who will use her education to help build her community, or the young student from the central city who seeks access to an economically stable life, Pat models the sacred trust and critical responsibility granted to academic leaders.

To my daughter, Catherine Romero-Finger, who has blessed my life every day of her own. Her kindness, personal strength, and capabilities as a young wife and mother, graduate student, and person of the world continually inspire me and give me confidence that the future is in good hands.
ACKNOWLEDGEMENTS

Most major accomplishments in life are achieved in concert with others. So it is with this dissertation. I am grateful to so many for their gracious support, encouragement, and work on my behalf.

I must acknowledge first my colleagues and friends at DePaul University without whose assistance I would never have completed this work. Fr. Dennis Holtschneider, president and friend, first sponsored me for the program at Penn and generously gave me the time and space necessary to complete this dissertation. Jay Braatz, friend and colleague, offered assistance as I ventured into new territory in quantitative analysis. Her patience as she answered endless questions and reviewed far too much data was truly exceptional. Staff in the Advancement Office, particularly the executive team led by Erin Moran, stepped in often over the last three years and took on portions of my job as well as their own. Erin, Denny Moller, Sara Miller-Acosta, Kevin Fortwendel, Abena Apea, Felicia Filbin, Judy Martinez, and Joel Schafer assumed extra duties with good humor and great tolerance. I am privileged to work with each of them. Al Smith, Ron Eisenstein, and Dominique Simmons shared their talents of design, database management, and organization in support of my research study. I will be forever grateful for their assistance. Tracy Mohr provided support on statistical analysis, walking every step of the way with me. His abilities are numerous and I very much appreciate his generosity of spirit in sharing them with me.

My friend, David Paris, spent countless hours as editor and counselor. David’s capacity to challenge intellectually—with kindness and understanding—is the hallmark of a
great teacher. I would not be completing this program without his encouragement and assistance for which I am enormously grateful.

The level of mutual support and respect found among the members of Cohort 10 was nothing short of amazing. These remarkable men and women embody the best in higher education leadership, and I am fortunate to have had the opportunity to share this life-changing educational experience with each of them guided as we were by the extraordinary faculty and staff of the Executive Doctorate Program.

Finally, I am truly grateful to my chair, Dr. Laura Perna, for her thoughtful guidance and her remarkable ability to offer perceptive and challenging criticism with kindness and grace. Her careful and discerning oversight of my dissertation was critical in bringing this project to completion. Thank you also to the other two members of my committee—Dr. Shaun Harper, and Dr. Blake Naughton—who provided keen insights and helpful comments that improved the work. In addition to their considerable skill as faculty and mentors, Dr. Perna, Dr. Harper, and Dr. Naughton’s own passion in support of low-income and minority students inspires and reminds all of us who lead colleges and universities of the responsibility we hold to ensure that quality higher education is available to all.
ABSTRACT

LIMITED REACH: THE ROLE OF MISSION AND INSTITUTIONAL AID IN SUPPORTING MINORITY STUDENTS

Mary Catherine Finger
Laura W. Perna

This study uses a mixed methods research design to explore the relationship between institutional financial aid practice and graduation rates at a subset of private, non-profit four-year colleges and universities and explores how institutions prioritize allocations to financial aid within the framework of institutional mission, culture, and leadership. The quantitative part of the study explored the relationship between the percentage of need met and graduation rates: overall, African American, and Latino and the percentage of institutional aid allocated to needy students and graduation rates of the same student populations. Four qualitative case studies explored how institutional leaders interpreted mission and made decisions with regard to enrollment and financial aid policy especially as it relates to underrepresented minority students.

The quantitative path analyses showed no relationship between financial aid (percentage of need met and the percentage of institutional aid allocated to students with need) and graduation rates overall and of African American and Latino students at the institutions in the population examined. The qualitative case studies found that institutions, consistent with their espoused missions, sought to support—financially and programmatically—underrepresented minority students but face economic, demographic, and political trends that are making it increasingly difficult to align mission with financial aid practice. There were distinct differences among the institutions in the case studies in
terms of tactics they adopted to respond to these economic, demographic, and political trends.
# TABLE OF CONTENTS

DEDICATION ................................................................................................................. iii  
ACKNOWLEDGEMENT ................................................................................................. iv  
ABSTRACT .................................................................................................................... vi  
LIST OF TABLES .......................................................................................................... xii  
LIST OF FIGURES ....................................................................................................... xiv  

Chapter 1: Introduction .............................................................................................. 1  
  Persistence and the National Agenda ........................................................................ 1  
  The Evolution of Institutional Financial Aid ............................................................. 7  
  Mission and Decision-Making .................................................................................. 12  
  Mission at the Institutional Level ............................................................................. 15  
  Mission and Student Success .................................................................................... 17  
  Mission and Leadership ........................................................................................... 19  
  Mission and Finance ................................................................................................. 21  
  Funding Student Aid ................................................................................................ 23  
  Financial Aid Leveraging .......................................................................................... 25  
  Summary .................................................................................................................... 27  

Chapter 2: Review of the Literature .......................................................................... 30  
  The Interactionalist or Student Fit Model ................................................................ 31  
  Economic Models of Persistence .............................................................................. 39  
  The Institution as the Unit of Analysis .................................................................... 46
Chapter 3: Methodology .......................................................... 51
Quantitative Analysis: Data Collection and Analysis ................... 53
Variables ........................................................................... 59
Path Analysis ...................................................................... 64
Qualitative Analysis ............................................................. 68
Trustworthiness .................................................................. 76
Limitations ......................................................................... 78
Chapter 4 – Financial Aid and Student Graduation Rates .............. 80
Percentage of Need Met and Graduation Rates ......................... 80
Predictors of Graduation Rates and Percentage of Need Met ....... 82
Percentage of Aid Awarded to Needy Students and Graduation Rates .... 87
Predictors of Graduation Rates and Percentage of Aid to Needy Students ... 87
Summary ........................................................................... 92
Chapter 5: Driven By Mission ................................................. 95
Establishing Mission ............................................................ 95
Integrating Mission and Planning ............................................ 98
Mission and Financial Aid Policy ........................................... 101
Shifting Need-Based and Merit Aid ......................................... 107
Retention and Graduation of Latino and African American Students at
University A .................................................................. 109
Future Enrollment and Financial Aid Practice at University A .... 113
Conclusion ........................................................................ 115
Chapter 6: Searching For a Sustainable Business Model ........................................ 119
  Focusing on Mission .......................................................................................... 120
  Mission, Planning and Decision Making ......................................................... 122
  Searching for a Long-Term Sustainable Business Model ............................... 124
  Managing Financial Aid ...................................................................................... 126
  New Approach: Financial Aid Leveraging ....................................................... 127
  Retention of Latino and African American Students at University B ........... 131
  Conclusion ........................................................................................................ 135

Chapter 7: Meeting Full Need: Can This Commitment Be Maintained? ............ 138
  Best in Class: Mission Redefined ................................................................. 141
  Planning and Governing at University C ......................................................... 142
  Meeting Full Need – Changing Direction? ....................................................... 144
  Innovating in a Traditional Environment .......................................................... 150
  Persistence and Graduation at University C .................................................... 153
  Conclusion ........................................................................................................ 157

Chapter 8: Rethinking Mission ....................................................................... 158
  Mission at the Crossroads .............................................................................. 160
  Leadership and Planning at University D ........................................................ 162
  Diversity and Retention .................................................................................... 168
  Access and Affordability at University D ........................................................ 173
  Conclusion ........................................................................................................ 177
# Table of Contents

Chapter 9: Varied Circumstances: Common Challenges ........................................ 180
- Mission and Tuition Dependence .................................................................. 181
- Operating in a Post-Recession Environment .............................................. 183
- Mission at the Margins ............................................................................... 187
- The Role of Planning and Decision Making ............................................... 190
- Retention of Latino and African American Students .................................... 192
- Summary .................................................................................................... 196

Chapter 10: Finding a Way Forward ................................................................. 199
- Factors Influencing Retention and Graduation: Selectivity and Wealth – Yes
- Financial Aid Practices – Possibly .............................................................. 200
- Reconciling Findings from the Quantitative and Qualitative Analysis ........ 203
- The “New Normal” ..................................................................................... 209
- Future Research and Policy Implications .................................................... 212
- Conclusion .................................................................................................. 213

Appendices ...................................................................................................... 216

Bibliography ................................................................................................. 227
LIST OF TABLES
1 Institutions Included in Analyses of Predictors of Graduation Rate at Private Four-year Colleges and Universities ................................................................. 55
2 Comparison of Reporting and Non-Reporting Institutions:
   Percentage of Need Met ............................................................................. 56
3 Reporting Institutions: Need Met, SAT, and Percentage of Underrepresented Minority Students and by Endowment Band ........................................ 57
4 Comparison of Reporting and Non-Reporting Institutions: Percentage of Institutional Aid Allocated to Needy Students ................................................. 58
5 Descriptive Statistics: Institutional Aid to Needy Students by
   Endowment Band ....................................................................................... 59
6 Brief Description of Variables Included in the Analyses ............................. 60
7 Correlations between Variables included in the Analyses of Percentage of Aid to Needy Students ......................................................................................... 63
8 Correlations between Variables included in the Analyses of Percentage of Need Met ...................................................................................................... 63
9 Variance Inflation Factor: Variables included in the Analyses .................... 64
10 Summary of Goodness of Fit Measures for the Analyses ............................. 67
11 Predictors of Overall Graduation Rates at Private, Nonprofit Four-Year Colleges/Universities (Related to % of Need Met) ........................................ 84
12 Predictors of African American Graduation Rate at Private, Nonprofit,
   Four- Year Colleges/Universities (Related to % of Need Met) ................. 85
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predictors of Latino Graduation Rate at Private, Nonprofit, Four-Year</td>
<td>86</td>
</tr>
<tr>
<td>Colleges/Universities (Related to % of Need Met)</td>
<td></td>
</tr>
<tr>
<td>Predictors of Overall Graduation Rate at Private, Nonprofit, Four-Year</td>
<td>89</td>
</tr>
<tr>
<td>Colleges/Universities (Related to % of Aid to Needy Students)</td>
<td></td>
</tr>
<tr>
<td>Predictors of African American Grad. Rate at Private, Nonprofit, Four-Year</td>
<td>90</td>
</tr>
<tr>
<td>Colleges/Universities (Related to % of Aid to Needy Students)</td>
<td></td>
</tr>
<tr>
<td>Predictors of Latino Graduation Rate at Private, Nonprofit, Four-Year</td>
<td>91</td>
</tr>
<tr>
<td>Colleges/Universities (Related to % of Aid to Needy Students)</td>
<td></td>
</tr>
<tr>
<td>Descriptive Statistics: Case Study Institutions</td>
<td>93</td>
</tr>
<tr>
<td>Distribution of Percentage of Need Met at Private, Nonprofit, Four-Year</td>
<td>205</td>
</tr>
<tr>
<td>Four-Year Colleges and Universities in the Analysis</td>
<td></td>
</tr>
</tbody>
</table>
LIST OF FIGURES

1 Path Diagram for Hypothesized Model Predicting Need Met and Student Graduation Rate ........................................................................................................... 65

2 Path Diagram for Hypothesized Model Predicting Aid to Needy Students and Graduation Rate ........................................................................................................... 66

3 Path Analysis of the Predictors of Overall Graduation Rates and the Percentage of Need Met at Private, Nonprofit, Four-Year Colleges/Universities ........... 84

4 Path Analysis of the Predictors of African American Graduation Rate and the Percentage of Need Met at Private, Nonprofit, Four-Year Colleges/Universities ........................................................................................................... 85

5 Path Analysis of the Predictors of Latino Graduation Rate and the Percentage of Need Met at Private, Nonprofit, Four-Year Colleges/Universities ........... 86

6 Path Analysis of the Predictors of Overall Graduation Rate and the Percentage of Aid to Needy Students at Private, Nonprofit, Four-Year Colleges/Universities ........................................................................................................... 89

7 Path Analysis of the Predictors of African American Graduation Rate and the Percentage of Aid to Needy Students at Private, Nonprofit, Four-Year Colleges/Universities ........................................................................................................... 90

8 Path Analysis of the Predictors of Latino Graduation Rate and the Percentage of Aid to Needy Students at Private, Nonprofit, Four-Year Colleges/Universities ........................................................................................................... 91
Placement of Case Study Universities: African American Graduation Rates and Percentage of Need Met ............................... 94
CHAPTER 1
INTRODUCTION

Persistence and the National Agenda

In 2007, the Organization for Economic Cooperation and Development (OECD) reported that the United States ranked 12th in the world for postsecondary attainment for 25- to 34-year-olds (Lee & Rawls, 2010). At its current pace, the United States looks to compete in the knowledge economy with a highly educated older workforce moving into retirement, a younger population that is undereducated compared to other industrialized nations, and projected shortfalls in postsecondary-degree productivity. Government and educational leaders fear that these trends will continue to have negative consequences for the economic and social health of the United States (Lee & Rawls, 2010). At a time when President Obama has set as a national agenda the return of the United States as a world leader in postsecondary educational attainment, degree completion is a critical challenge (Kelly, 2010).

In the latter quarter of the twentieth century, workforce needs in the United States began requiring a higher level of education. In 1973, the percentage of jobs requiring some college education was 28%. By 2007, 59% of all U.S. employees had some postsecondary education. Projections indicate that by 2018, an estimated 63% of all U.S. workers will require a certificate or an associate or bachelor’s degree, and that the workforce will demand 22 million postsecondary degrees (Carnevale, 2010). Yet degree production is projected to fall short of that target by at least 3 million degrees (Carnevale, Smith, & Strohl, 2010).
Beyond benefits to the nation, the benefits to the individual of higher education have been well chronicled; income levels are far greater for those with baccalaureate degrees than for those with less education. Income varies dependent on level and type of postsecondary education attained as well. Data from 2008 indicate that the median income for women and men of all races was considerably higher for workers who possessed a minimum of a bachelor’s degree than for workers with a high school diploma. In fact, women between the ages of 25 and 34 with a bachelor’s degree had median incomes that were 79% higher than women with a high school education. For men, the differential between those with four-year college degrees and high school degrees was 74% (Baum, Ma, & Payea, 2010).

In the last 45 years, there have been multiple Higher Education Act Reauthorizations, billions of dollars expended on state, federal, and institutional student financial aid, and countless national, regional, and local programs established, all aimed at increasing access to and attainment in postsecondary education. While access to postsecondary education is substantial—more than 4,300 institutions of higher education in the United States educate more than 18 million students annually (National Center for Education Statistics, 2010)—degree attainment continues to elude many. The College Board reported that, as of 2007, 56.1% of college students who intended to complete a four-year degree attained a degree within six years and 27.8% of students who intended to earn an associate’s degree did so within three years (Lee & Rawls, 2010). Attainment rates of less than 60% for bachelor’s degrees and less than 30% for associate’s degrees will not aggressively advance the national agenda of having 55% of U.S. working-age adults educated with a postsecondary degree by 2020.
Enrollment in higher education over the last 30 years has increased for every racial/ethnic group in the U.S., with Latinos and Asian Americans experiencing a more rapid rate of growth than Whites and African Americans, due, at least in part, to the rapid growth in Hispanic and Asian American populations (Aud, Fox, & KewalRamani, 2010). Despite an increase in enrollment for all races, though, there is a disparity in graduation rates between certain groups. As of 2008, 52% of Asian American adults and 33% of Whites adults held a minimum of a bachelor’s degree, compared to only 13% of Latinos, 15% of American Indian/Alaskan Natives and 20% of African Americans (Lee & Rawls, 2010).

Although multiple factors influence the educational attainment rates of low-income and minority students, including social and cultural barriers and academic preparation (Warburton, Bugarin, Nuñez, & Carroll, 2001), characteristics of colleges and universities may also affect student persistence. Oseguera (2005-2006) identifies several categories of institutional characteristics—size, selectivity, composition of the student body, and expenditure of resources in support of students—and argues that there is a relationship between these institutional characteristics and the likelihood of student persistence and graduation.

Whatever the social, cultural, or academic challenges or institutional limitations or advantages, increased educational attainment for underrepresented minorities and low-income students is a necessity if the U.S. is to achieve degree-fulfillment levels set forth in support of the national agenda (Kelly, 2010). If this agenda is to be fulfilled, policymakers and higher education institutions must better understand those factors that increase the likelihood of retention, persistence and completion. Financial aid is one
possible mechanism to assist minority students, whose success is essential to the completion agenda, to stay in school and finish their undergraduate education.

Specifically, the role of institutional aid in meeting student need and the connection between institutional financial aid policy and underrepresented minority persistence bears further study because of the importance of minority persistence to the national agenda. If educational attainment is going to improve in the United States, retention and graduation of underrepresented minority students is critical. Continued research on the relationship of student finances and financial aid to student departure behavior is warranted, given the dependence of today’s student population on financial aid. Presently, nearly 80% of full-time undergraduate college students receive some type of aid (Aud, Fox, & KewalRamani, 2010). The role of student finances and financial aid in the persistence of Latino and African American students is of particular interest, given the heavy dependence on financial aid of these populations. In 2007-08, 92% of full-time African American undergraduates and 85% of full-time Latino undergraduates received financial aid, compared to 77% of Caucasian students and 68% of Asian American students (Baum, Ma, & Payea, 2010).

Latino and African American students are more likely than White students to require financial assistance to access and complete college given the economic realities of these populations in the United States; Latino and African American families have lower median incomes than White families and are more likely to fall below the poverty line. In 2011, the average median income for a White family was approximately $55,000 compared to just under $39,000 for Latino families and $32,000 for the average African American family (National Center for Education Statistics, 2012). A substantially larger
percentage of Latinos and African Americans fall below the poverty line (25.3% and 27.6% respectively) compared to Whites (9.8%) (U.S. Census Bureau, 2012). If underrepresented minority students are to successfully secure postsecondary education, it is probable that many students will require federal, state and institutional support to do so. Institutional aid is particularly critical given recent trends in undergraduate grant aid—trends that have colleges and universities providing levels of grant aid at levels close to federal grant support (Baum, Lapovsky, & Ma, 2010). This study examines the relationship between Latino and African American student graduation rates and the level of financial aid support provided at the institutional level.

The persistence literature indicates that there are multiple categories of variables—individual, institutional, societal—that can influence the retention and graduation of students. Research on student persistence has shifted from early models, which defined student integration as primarily an individual decision based on the psychological, academic, and social fit of the student with the institution, to models that explored how multiple variables—with both the student as the unit of analysis and the institution as the unit of analysis—interacted to influence student persistence. Ability to pay and college choice-nexus persistence models have also reviewed how external factors, such as student finances and financial aid, influence student retention and graduation.

For the majority of private, nonprofit colleges and universities in this country tuition funding is the fundamental and primary source of revenue that fuels both day to day operations and long-term institutional investment (Government Accounting Office, 2012). Dependence on student tuition dollars to fund the operations of postsecondary
institutions increased markedly in both the public and the private sector between 1999 and 2009, with net tuition accounting for 22% of operating dollars at public institutions and 40% at private, nonprofit colleges and universities in 2009-2010. For private, nonprofit colleges and universities that were not research institutions, tuition accounted, on average, for 69% of the financial resources used to underwrite these institutions.

The purpose of this research is to look more closely at the relationship of financial aid to overall, Latino, and African American graduation rates, the decision-making process around distribution of financial aid, and the intersection of financial aid practice to institutional mission. This research focuses on financial aid practice in private institutions where financial aid consumes a large part of institutional budgets and often requires decision-making at the most senior level of the colleges and universities. In comparison, as noted above, public institutions allocate a smaller percentage of their budgets to institutional aid and as Baum, Lapovsky, and Ma (2010) state, public institutions are often not in control of their budgets from year to year due to fluctuating state support.

The decision-making processes around financial aid at public institutions may be more limited and less tied to annual budgeting processes and, consequently, less informative about how mission, institutional decision-making and financial aid practice intersect. We may hypothesize that private institutions have greater discretion quantitatively in the amount and distribution of financial aid funds and qualitatively in the ways in which financial aid is distributed and support is offered for needy students. Given this discretion, missions in private higher educational institutions may utilize financial aid to focus special attention on serving certain populations. This focus on
mission might provide both quantitative and qualitative approaches that offer lessons to university administrators for future practice.

The Evolution of Institutional Financial Aid

In *The Student Aid Game* (1998), McPherson and Schapiro outlined the history of financial aid policy in the United States by chronicling two distinct periods—the 1960s through the 1980s and post-1980s through the end of the 1990s. The first period, they note, was characterized by major financial support of higher education at both the federal and state levels. After the 1980s, however, support for higher education began to erode as the need for resources for other government programs—including health care and prisons—competed with higher education for funding, and Americans were unwilling to tolerate increased taxation to cover all needs. Recessions in the 1980s and 1990s impacted state budgets negatively—and, consequently, funding for higher education, according to the authors. The book ends before the great recession of 2009; however, the downward trend of state support for postsecondary education was further exacerbated in many states by the economic challenges that began in 2009 (Jaschik, 2010). Private institutions, less dependent on state funding, experienced other noteworthy shifts after the 1980s, including a decline in the college-age population and the loss of students to lower-cost public alternatives (McPherson & Schapiro, 1998).

Whether public or private, colleges and universities faced a very different landscape going forward from the late 1980s—a landscape that resulted in modifications to how institutions recruited and helped students finance their educations. Financial aid policy in the United States, first officially established with the Higher Education Act of 1965, was predicated on the idea that only students with need should receive financial aid
and that they should be given as much aid as needed to bridge the gap between what their families could be expected to contribute and the cost of tuition (McPherson & Schapiro, 1998). From the 1990s forward—as a result of a rise in competition for resources and students and the growing interest in making college more affordable for middle-class families—the historic role of financial aid as a mechanism for meeting student need shifted and expanded. The use of financial aid at colleges and universities became a means to meet a number of institutional priorities. Institutions began using financial aid to attract students with certain characteristics that in turn helped achieve the goals of the college or university—goals such as increasing rankings and profile, augmenting student diversity, or maintaining a balance of wealthy and low-income students. The vision of financial aid completely meeting the financial needs of all students at all institutions never fully came to pass, and—institutional financial aid began to be used for purposes other than the exclusive support of needy students.

Institutional financial aid practice in the United States had historically been framed around human capital theory, in which net price theory was integral. Human capital theory holds that student access to higher education is dependent on the availability of funds—that entrée to financial resources was one of the principal reasons students did or did not have postsecondary educational opportunities (Becker, 1975). Net price theorists argued that students and their families were motivated to enroll or not enroll in certain institutions by a single net price that represented the cost the student would pay for his or her education (St. John & Starkey, 1995). However, as college and university enrollments rose during the 1970s, 1980s, and 1990s—at the same time that tuition costs increased—higher education leaders challenged the assumption that net
prices were connected to enrollments. When general enrollments did not suffer with increased tuition and fees, researchers began to think that students and their families were making educational decisions in the context of multiple prices and multiple subsidies. In that context, alternative pricing scenarios were created—particularly the scenario of establishing high tuition costs while providing high student aid.

McPherson and Schapiro (1998) described the evolution of institutional financial aid distribution that resulted from transitions in the funding and enrollment environment. They found three approaches to distribution of institutional financial aid: (a) a few highly endowed colleges and universities, with many more applicants than they could accommodate that had the financial resources to meet all or most of the demonstrated need of students with need. These institutions provided no financial support for students who were not needy; (b) institutions with less than robust endowments and fewer applicants that were able to meet student need, but at less than 100% of student need. These institutions used their institutional aid to support needy students and viewed the financial aid budget as a cost center; and (c) institutions that utilized institutional aid to reflect multiple goals and priorities offering both merit- and need-based support. These colleges and universities viewed institutional financial aid as a return on investment to “create a class” rather than expenditure of a certain budget.

The proportion of institutional aid that has met financial need versus the proportion that has gone beyond need and been used for such purposes as providing support for meritorious students and/or achieving enrollment goals has not only differed between educational sectors, but also between different types of colleges and universities within sectors. For example, at private four-year colleges and universities, 73% of the
general institutional grant aid in 2007-08 went to meet documented financial need; at public two-year colleges, that percentage was 65%, while at public four-year colleges, just 54% of the general institutional grant dollars went to meet need. At the highest-priced private institutions, 87% of general grant aid met need in 2007-08, compared to 61% at the lowest-priced private, nonprofit colleges (College Board Advocacy & Policy Center, 2010b).

However, more recent data indicate that at both public colleges and universities and private institutions the practice is to distribute institutional aid to students with demonstrated financial need, (College Board Advocacy & Policy Center, 2012). Public four-year institutions that accept less than 54% of their applicant pool have gone from allocating 63% of their institutional aid to meet student need (in 2007-08) to 73% (in 2011-12). At private, nonprofit four-year colleges and universities that accept less than 27% of their applicants, approximately 92% of institutional aid supports students with need; that percentage stayed constant from 2007-08 through 2011-12. Less selective private, nonprofit institutions—those accepting less than 45% of their applicants—utilize approximately 85% of their institutional grant dollars to support students with need; private, nonprofit colleges and universities accepting 46% or more of their applicant pool committed approximately 72% of their institutional aid to students with need in 2011-12 (College Board Advocacy & Policy Center, 2012, p. 31).

Overall institutional grant support has played an increasing role in student financial aid over the last decade, rising from 34% of all undergraduate grant aid in 1990 to 39% in 2008-09, (Baum, Lapovsky, & Ma, 2010). By 2011-12, $42 billion in institutional financial aid was being distributed to students, a 95% increase in total dollars
(adjusted for inflation) from 2001-02 representing 37% of all undergraduate grant aid (College Board Advocacy & Policy Center, 2012).

Colleges and universities—and particularly private institutions—can exercise choice about how institutional resources are utilized and what financial aid practices are employed in support of underrepresented minority and low-income students. Determining whether meeting student financial need, particularly for underrepresented minority students, many of whom are low-income, has an impact on persistence and reviewing how institutions determine allocation of resources to underrepresented minority students may influence future institutional policy in this area. As enrollment and financial aid policy plays a prominent role in the management of colleges and universities, a review of how institutions make decisions around the distribution of financial resources to achieve the varied and oftentimes competing goals of stability, prominence, and mission effectiveness offers insight on these issues and raises questions about larger national issues of access and attainment.

Financial aid is not the only factor that influences whether students, regardless of race/ethnicity and/or socioeconomic status, persist and graduate. The retention literature has explored and developed sound theories about student engagement, persistence, and graduation for decades— theories that have resulted in retention programs in institutions across the country. Recent research, however, has begun to explore the impact of economic factors on students’ ability to persist and graduate (Gansemr-Topf & Schuh, 2005; Price & Davis, 2006). This research suggests the possible importance of reviewing how two practices of financial aid—meeting unmet need and awarding institutional aid to needy students—may play a role in the national agenda on persistence, particularly for
low-income and minority students. As the approach to using institutional student
financial aid has shifted from a tactic that bridges needy students’ ability to pay and
tuition costs to a method of targeting institutional funding to achieve a broader array of
institutional priorities, there is potential for the underrepresented minority student who is
not academically competitive to be further marginalized in terms of successful attainment
of postsecondary education.

As this thesis seeks to explore how and if financial aid practice influences
retention and graduation of minority students, it is important to understand the role of
mission in both determining and enacting financial aid policy. As colleges and
universities allocate increasing percentages of their budgets to fund financial aid,
institutional leadership must make decisions about how priorities are established, which
institutional initiatives to fund, and what mission-related obligations to support.
Reviewing the role of mission in decision-making and setting institutional direction
offers a framework for discussion and research.
Mission and Decision-Making

Discussion about “mission” abounds at institutions of higher education. Faculty
and staff committees, academic and administrative leadership, and members of boards of
trustees spend extraordinary amounts of time defining and articulating the mission of
their colleges and universities. Strategic planning and decision-making is generally tied
to the institution’s mission (Morrill, 2007), and there is evidence that in colleges and
universities where stated and enacted missions are aligned, students have more success
(Kuh et al, 2010).
There are various levels of “mission” referenced in the higher education literature: (a) the mission of higher education in the United States—a mission that has evolved over hundreds of years in response to public demand and societal need; (b) the broad mission of postsecondary institutions to create and disseminate knowledge; and (c) the particular missions of colleges and universities—aspirational frameworks specific to the type and situation of these institutions.

Scott (2006) traces the evolution of the mission of the university from early institutions created during “pre-nation state stage” to the mission of higher education today—a mission that has evolved in response to the circumstances of “independent nation-states.” The author notes that the dual goals of teaching and research were generally integrated in the universities of pre-modern times and, collectively, formed the mission of these early institutions. In early modern times as the nation-state came into being the mission of the university was squarely focused on service to the emerging nation states. At this time, teaching and research—still important missions of institutions of higher education—were situated, however, in the context of the broader mission of nationalization. In a number of countries, in fact, universities were nationalized in order to better serve state leadership (p.4).

In the late 1700s and early 1800s as the concept of democratization grew, so too did the belief that colleges and universities should have broader more socially defined missions beyond service to the individual student. In the nineteenth century, the Morrill Acts of 1862 and 1890 established land grant institutions and expanded teaching and research to new American populations. Public service was added to teaching and research as a key mission of U.S. universities during this time (Scott, 2006). Unique to American
higher education, the mission of public service is reflected in broad accessibility to education, applied research that benefits society directly, service to communities in which higher education institutions reside, and preparation of students for citizenship (Brubacher & Rudy, 1976, in Scott, 2006; Weisbrod, Ballow, & Asch, 2008).

By the 1970s, the role of postsecondary education in the United States was firmly established as one of benefit to both the individual and society through teaching, research, and public service as illustrated by the articulated goals of the 1973 Carnegie Commission:

The Carnegie Commission (1973b) translated the traditional purposes of higher education—teaching, research, and service—into five sets of goals: (1) providing opportunities for the intellectual, aesthetic, ethical, and skill development of individual students; (2) advancing human capability in society at large; (3) enlarging educational justice; (4) transmitting and advancing learning; and (5) critically evaluating society for the sake of society’s self-renewal. (Cohen & Kisker, 2010)

Although teaching and research have always been the joint missions of higher education, the context in which teaching and research have existed has changed over the course of time influenced by the political and economic environments in which higher education was placed. The third mission of public service was appended to the missions of teaching and learning in the nineteenth century, and this triumvirate continues to form the dominant mission of higher education in the United States in the twenty-first century. Postsecondary institutions in the United States are expected to fulfill a public service role in addition to their teaching and research roles. In the aggregate, this public service role includes providing access to education to broad sectors of the population. However, it is in the particular that institutions make decisions about accessibility, diversity, and
funding, and it is at this level that mission either supports a broader service agenda of access for underrepresented students or it does not.

Mission at the Institutional Level

Within the overarching missions of teaching, research, and service reside the particular missions of thousands of colleges and universities throughout the country—institutional missions that are influenced by size, type of institution, philosophical perspective and affiliation (e.g. public, private, nonprofit, for profit, religious, secular).

The missions of particular institutions are rarely static, often changing in response to new philosophical ideas or changes in educational policy (Scott, 2006, p. 3). Described variously as “the life force of any enterprise” (Scott, 2006, p. 2); “the broadest word used to describe a university’s basic purpose” (Allen, 1998, in Scott, 2006); and “the overarching purposes of the institution—what it is and stands for as well as what it aspires to be” (Kuh, Schuh, Whitt & Associates, 1991, cited in Kuh, Kinzie, Schuh, Whitt & Associates, 2010), mission provides direction for institutional priority-setting and decision-making (Kuh et al., 2010).

Morrill (2007) cites Hunt, Oosting, Stevens, Loudon, and Migliore (1997) and Sevier (2000) in his discussion of the requirements for establishing and articulating the particular mission of an institution. Morrill notes that creating and supporting the mission requires reflection and examination and involves asking and answering questions about the institution’s origin (founding event and legacy); values; governance (board, state, church sponsorship); purpose; range and type of education offered or planned; and composition of current and future student audiences (p. 138).
Morrill (2007) argues that a lived mission provides a critical value to organizations:

A compelling sense of strategic mission provides more than just an effective benchmark for decision making. It answers to deeper features of the human constitution and the need for meaning... The loss of a sense of purpose or development of meaningless systems of control in bureaucracies, including academic ones, deadens people or makes them cynical or rebellious. On the other hand, when people are able to shape the purposes of their organizations and know why they are doing things, they become engaged. (p. 139)

Lived mission engages people and creates communities forged by common purpose, Morrill notes. Members of these communities enter into relationship with their colleagues “that come with mutual obligations and expectations and express themselves in acts of reciprocal affirmation and correction” (p. 139).

Clarity of mission, however, can be a challenge for institutions of higher education. Birnbaum (1988) discusses the need for “agreement on organizational mission” noting that the singular mission for businesses and corporations—making a profit—and the organizing focus of that mission does not exist for higher education. Instead postsecondary institutions are frequently managing multiple missions. Referencing Gross and Grambsch (1974), Birnbaum writes:

As colleges and universities become more diverse, fragmented, specialized, and connected with other social systems, institutional missions do not become clearer; rather, they multiply and become sources of stress and conflict rather than integration. The problem is not that institutions cannot identify their goals but rather that they simultaneously embrace a large number of conflicting goals. (p. 11)

The overarching missions of higher education—teaching, research, and service—are often supported by divergent organizational structures that, while interrelated, are frequently in competition for financial support and institutional attention. Additional
goals particular to the mission(s) of individual colleges and universities contribute to an environment in which institutional mission is multilayered (Birnbaum, 1988).

Morrill’s (2007) research posits that the missions of colleges and universities serve to set priorities, determine direction, and engage members of the institution in common purpose. Birnbaum reminds us that institutions are often faced with multiple missions in environments where competition for resources and recognition is high. In the ideal world, identified by Morrill, mission drives priority setting and decision-making, but most institutions of higher education are under pressure to achieve their missions in changing circumstances with limited assets. How common purpose is upheld when institutions face economic constraints and/or challenges to core tenets of the mission is a question that is particularly pertinent as institutional financial aid practice and its role in retention and persistence of minority students is researched.

Mission and Student Success

A lived mission—one that is specifically defined by the institution based on its history, goals and values and embraced by both leadership and the institutional community—has been found to relate to student learning and student success (Kuh, et al., 2010). In a follow-up to their initial groundbreaking research that identified and studied a set of colleges and universities which had successfully engaged and graduated students at higher rates than their counterpart institutions, Kuh et al. (2010) reaffirmed findings originally documented in 2005 regarding the importance of lived mission.

Kuh et al. (2010) studied the practices of 20 American institutions identified through quantitative analysis as having higher than predicted scores in the educational practice clusters of the National Survey of Student Engagement (NSSE) and higher than
predicted six-year graduation rates. Researchers involved with the project—entitled Documenting Effective Educational Practice (DEEP)—utilized a qualitative case study approach to record policies, practices, and the environmental conditions that contributed to student success at the 20 institutions they researched.

Investigators found that each of the 20 DEEP colleges and universities, though diverse in size, governance, religious affiliation, and reputational level, had two common characteristics: (a) well-articulated educational goals and (b) a mission around which priorities were shaped. Kuh et al. (2010) maintain that there are two missions in colleges and universities—the espoused mission, or how an institution describes itself publicly; this is generally found in the mission statement—and the enacted mission, which is reflected in the population served and in the manner they are served. According to Kuh et al., enacted mission is evident in how colleges and universities relate to students, establish policies and programs, determine priorities, and allocate financial and personnel resources. The authors noted that at those colleges and universities identified as having achieved greater success in both student engagement and student graduation, the stated and lived missions were more aligned: there was less of a gap between the espoused and the enacted missions at DEEP schools than at non-DEEP colleges and universities (p. 26).

Further, the researchers found that mission at these high achieving colleges and universities was both stable and elastic. The stability of the mission afforded the institution a “constancy of purpose and direction”; elasticity was able to “accommodate changing external circumstances, curricular innovation, and students’ needs and educational objectives” (Kuh et al., 2010, p. 26). Research from the DEEP project
suggests that mission matters in terms of student engagement and graduation. This research indicates that aligned mission influences student achievement. Whether having an aligned mission relates positively to financial aid policy and practice with respect to supporting African American and Latino students is the question this study in part addresses.

Mission and Leadership

Schein (2010) maintains that the key role of a leader of any organization is to comprehend the most profound levels of its culture, to determine the effectiveness of the basic assumptions of the organization in helping it to function, and to manage the anxiety when those assumptions are contested (Schein, p. 33).

Culture and leadership “are two sides of the same coin,” according to Schein (2010). Leaders as either founders of an organization or as directors of a part of the organization often initiate the creation of culture. If culture has already been established, leaders define the standards for future leadership through hiring and rewards systems (2010, p. 3), and communicate their conscious and unconscious beliefs through a variety of mechanisms that “teach their organizations how to perceive, think, feel and behave” (2010, p. 236) thus guiding and promoting culture.

Schein (2010) classifies the mechanisms used into two broad categories: (a) primary embedding mechanisms and (b) secondary articulation and reinforcement mechanisms. Primary embedding mechanisms include: those things that leaders follow, measure, and control systematically; how leaders distribute resources and dispense rewards and status; what leaders teach, coach and model; how leaders respond to crisis and critical issues; and how leaders hire, promote, and fire personnel. Secondary
articulation and reinforcement mechanisms consist of: the structure of the organization; its formal systems and procedures; organization of physical space; customs and practices; institutional folklore; and formal declarations of the institution’s philosophy (Schein, p. 237).

Schein (2010) notes that there are three particularly important moments in the life of an organization in which leaders influence culture—in budgeting and planning; in times of crisis; and through statements of institutional mission or purpose. It is often in budgeting and planning meetings where a leader’s basic assumptions become apparent:

How budgets are created in an organization reveals leader assumptions and beliefs. For example, a leader who is personally averse to being in debt will bias the budget-planning process by rejecting plans that lean too heavily on borrowing and favoring the retention of as much cash as possible, thus undermining potentially good investments. As Donaldson and Lorsch (1983) show in their study of top-management decision making, leader beliefs about the distinctive competence of their organization, acceptable levels of financial crisis, and the degree to which the organization must be financially self-sufficient strongly influence their choices of goals, the means to accomplish them, and the management processes to be used. Such beliefs not only function as criteria by which decisions are made but are constraints on decision making in that they limit the perception of alternatives. (p. 245)

Leaders assert influence—either in culture creation or in the support of culture—through statements that document values and assumptions. These “espoused values”—described by Schein (2010) as the second level of culture—become the fundamental mechanisms to maintain the organization’s culture in established organizations. Morrill (2007) puts forth his assessment of the role that higher education leaders play in influencing culture, particularly through expression of institutional mission and vision:

The articulation of a mission and vision is that moment in strategy when the dynamic of leadership inescapably takes center stage. .. Leadership is asked to perform its distinctive role in mobilizing commitment to shared purposes and goals. Intimately linked to the definition of purpose or mission, the articulation of a vision is a requirement of strategy and a responsibility of leadership (p. 136)
Higher education leaders manage institutional culture to move and change their colleges and universities in a limited, but critical manner as they express the espoused mission of the institution. Researching institutions and their decision-making associated with mission and financial aid requires a review of enacted as well as espoused missions and an understanding of how leadership promotes alignment of these two levels of mission.

To understand institutional mission and its role in the establishment of financial aid policy and practice requires an understanding of institutional philosophy. Referencing Schein (1992), Kuh et al. (2010) argue that institutional philosophy, integrated into the culture of colleges and universities, drives the application of mission in overt as well as covert ways:

That is, the philosophy is composed of tacit understandings about what is important to the institution and its constituents and unspoken but deeply held values and beliefs about students and their education. Institutional philosophies serve as a compass, keeping the institution on track as it makes decisions about resources, curriculum, and educational opportunities (p.27).

Comprehending institutional mission and philosophy and the role of leadership in supporting mission of the universities participating in this research project is important to the exploration of how institutions make decisions about their financial aid practice.

Mission and Finance

Balancing mission with the requirements of financing the activities of the institution is increasingly a challenge for leaders of public and private, nonprofit colleges and universities. How the universities in this study integrate the funding of operations with institutional mission is of particular interest given the large percentage of
institutional budgets generally allocated to financial aid and the corresponding demand on that budget to accomplish financial and mission-specific priorities.

Weisbrod, Ballou, and Asch (2008) consider funding—particularly funding broad access to instruction—in regard to the missions of public, nonprofit private and for profit private institutions:

Missions and finance are not independent of one another, though what a school is doing—for its students, the community, and society more generally—affects its revenue-generating capacity. And, conversely, a school’s ability to generate revenue affects its ability to advance its mission and serve those various beneficiaries. (p. 4)

The authors observe that tuition, the principal revenue source for the majority of institutions of higher education, is established at levels commensurate with the competitive position of the institution and student willingness to pay. Revenue generation, however, is not the mission of public and private, nonprofit colleges and universities. Rather the generation of revenue enables institutions to achieve their missions. How an institution accesses its primary revenue stream—tuition—and how it strategically manages one of its most substantial costs—student financial aid—reflects the mission of the college or university (Weisbrod, Ballou, & Asch, 2008, p. 60).

This process of balancing sustainability with institutional mission and values has been referenced by other authors as being “mission-centered” and “market-smart” (Zemsky, Shaman, & Shapiro, 2001; Zemsky, Wegner, & Massy, 2005). Zemsky et al. (2005) contend that just as the role of business is to maximize profits, the role of colleges and universities is to maximize mission—specifically the mission of teaching, research, and public service. Not unlike their corporate counterparts, institutions of higher education are “subject to limitations imposed by the marketplace, productivity, and
finance’’ (p. 59). To be “mission-centered” in this framework is to maximize mission in the context of the limitations of the marketplace (2005, p. 59).

Institutions of higher education are at various places in the marketplace. Elite private colleges and universities have the capacity to charge high levels of tuition and fees with full confidence that they will reach their admission goals. For the non-elite private and public institutions, competition for students is more extreme and there is less flexibility to set tuition rates (Zemsky et al., 2005, p. 60). “Institutions with less market power must respond quickly to competitive price cuts and shifts in consumer preferences…They operate under the pressure of the elite institutions but compete strenuously with other non-elite institutions for every dollar of net tuition” (p. 60).

Referencing a concept articulated by Gordon Winston, Zemsky et al. (2005) describe the dichotomy of “university as church” and “university as car dealer” where financial aid policy is both used to fulfill mission through need-based aid that provides access to students of limited financial means and to compete aggressively for the most appealing students through use of both merit and need-based aid. Weisbrod et al. (2008) and Zemsky et al. (2005) see the marketplace as an arena in which all institutions of higher education are situated. Mission-centered institutions are those institutions that can live up to their mission within the context of their place in the marketplace.

Funding Student Aid

Institutional resources in support of student aid are generated from interest from endowment funds designated for scholarships, current use gift funds restricted to student aid, and operating resources designated by the university or college to underwrite student financial aid. Utilizing institutional resources to underwrite student aid is often referred to
as “tuition discounting” and is calculated as the percentage of gross tuition and fee revenue divided by total institutional funds allocated to support financial aid (Baum, Lapovskey, & Ma, 2010).

The level of tuition discounting varies by type of institution and tuition level of the college or university. Private, nonprofit schools and colleges reported the highest average tuition discount rates, as well as the highest average tuition and fees compared to public institutions and for-profit institutions. Between 2000-01 and 2007-08, for example, the tuition discount rate for private, nonprofit institutions increased from an average of 28.6% to 33.1% while the tuition discount rate for public colleges and universities declined from 20.5% to 18.3% (Baum, Lapovskey, & Ma, 2010). By 2011, the average rate of tuition discounting for private, nonprofit institutions was 37.2% (National Association of College and University Business Officers, 2012).

Average institutional grants ranged from $7,550 at less selective private colleges and universities to $14,440 at highly selective private institutions in 2011-12, compared to institutional grant awards ranging from $990 to $1,330 for students at public institutions (College Board Advocacy & Policy Center, 2012, pp. 30-31). Private institutions are expending institutional funds to support financial need at a higher rate than public institutions reflecting, in part, substantially higher tuition costs. However, as the comparative rates of tuition discount suggests, larger percentages of private college and university budgets are being expended on financial support for students. At many private institutions tuition is the primary source of revenue and student financial aid is one of the top two or three expenditures in the budget. This research project focuses both on the effects of financial aid practice on graduation rate and on the institutional decision-
making process around financial aid expenditures. Given the prominence of financial aid in the budgets of nonprofit, private colleges and universities, studying these institutions provides an opportunity to examine the organizational processes that produce financial aid policy that may affect student retention and graduation.

Financial Aid Leveraging

Increasingly, institutions of higher education are utilizing financial-aid leveraging, a practice that employs sophisticated statistical modeling techniques to manage the financial aid awarding process. Financial aid leveraging manages institutional resources with the intention of recruiting a class of students with desirable characteristics, and strategically generating “net tuition revenue.” Its critics argue that the process employs data-mining practices and pricing strategies adopted from other industries, such as the airlines to “buy, within certain limits, whatever class it [a college or university] wants” (Quirk, 2005, p.128).

Financial-aid leveraging was first established in the 1980s as institutions sought to bring in additional or “net” revenue and/or attract higher-scoring students. The process can be a sophisticated mechanism for using a combination of merit and need-based aid to recruit a particular student population. The practice of financial-aid leveraging begins with the segmentation of the members of the admitted class into a grid that lists academic ability on one axis and need on another axis. Financial aid is assigned based on the students’ place in the table with an eye to achieving a high yield or admit rate, particularly for those students that the institution most desires:

A school with a revenue problem puts its money toward rich students; a school that's going after prestige pushes it toward students with high SAT scores. Where the school might be paying more than is necessary to attract a candidate (for a
wealthy student with low grades, for instance, or an in-state student with few other options), aid is cut accordingly. (Quirk, 2005, p. 129)

Matrices are recreated annually based on statistical analysis of past results and data that include test scores, grades, class rankings, demographic information, and financial data in order to predict “how much each student is willing to pay, and guarantee the best class at the lowest price” (p. 129).

Quirk (2005) argues that this practice has a negative impact on poor students with fewer academic credentials. He notes that in the latter half of the 1990s, the difference between what the government estimates the family contribution to the student’s education should be and tuition costs – or “unmet need” - rose substantially for low-income students. The estimated unmet need of low-income students increased by 27% between 1995 and 1999. During the same time period, the average unmet need of families earning more than $60,000 stayed the same or narrowed slightly, and the unmet need of families earning between $40,000 and $60,000 increased by 3%. (p. 130).

Quirk (2005) suggests that financial aid leveraging has contributed to the disparity in need met for low-income students arguing that the practice is often used to limit the number of needy students attending the institution. As the objective of the process is to generate as much income as possible and needy students require more financial support, low-income, often minority students are either not admitted or, if the institution is “need-blind”, such students are “gapped” at a high level and left with a high percentage of tuition costs to pay from other sources such as loans or additional work hours. “Gapping” was of particular concern to the leadership at three of the four institutions studied as a part of this research project as leaders looked at the persistence and graduation rates of their low-income and underrepresented minority students. Those
interviewed indicated that the practice of gapping can have negative effects on students who may go into considerable debt to fill the “gap” between financial aid and tuition costs and/or work long hours to pay for the portion of their education not covered by financial aid. (The fourth university met full need, and gapping was not an issue.)

Quirk acknowledged that financial aid leveraging can also be used to achieve an institution’s mission by including supporting an ethnically or socio-economically diverse student body if guided to do so by institutional leadership. In 2008, David Kalsbeek and Donald Hossler, in a two-part series in College & University Magazine, discussed current institutional financial aid practice and noted that for many institutions, net tuition revenue is (a) the primary source of revenue for the college or university and (b) the mechanism for bridging the financial gap and making higher education affordable for students. The authors argue that financial aid strategy is a potent tool for shaping the institution’s profile and achieving mission (p. 4)

Kalsbeek and Hossler (2008) state that net tuition revenue plans must involve internal leadership:

Campus leaders at private and public institutions must weigh how much tuition revenue they can and should commit to financial aid to achieve wide-ranging goals of prestige, diversity, net revenue within the context of academic mission and institutional capacities and economics. (p. 3)

Summary

The factors that influence a student’s persistence to graduation are multiple and often interrelated, but access to financial resources for low and middle income students is a contributing factor (Gansemmer-Topf & Schuh, 2005; Oseguera 2005-2006; Price & Davis 2006). While federally subsidized loan and grant aid continues to represent the majority of student financial aid in this country, increasingly, aid provided by colleges
and universities in the form of tuition discounting is playing a role in financial support of students (Baum, Lapovsky, & Ma, 2010). Research—at both the student and the institutional level—suggests that institutional aid contributes to student persistence and graduation (Gansemer-Topf & Schuh, 2005). There is less known about the influence of institutional aid on persistence and graduation of underrepresented minorities—many of whom fall in the low- and middle-income sectors.

Drawing on the extensive retention literature cited in Chapter 2, this research project quantitatively analyzes the relationship between institutional levels of financial aid and graduation rates of African American and Latino students in private, nonprofit colleges and universities. This analysis examines the relationship between (a) need met and graduation rates and (b) institutional funding for needy students and graduation rates, taking into account institutional level variables that research indicates contribute to student persistence such as size, selectivity, and composition of the student body, and wealth of the college or university. Understanding the connection between institutional financial aid policy and degree completion for students in general and underrepresented minority undergraduates in particular may contribute to the national discussion on degree attainment.

Further, drawing on the work of Schein (2010), Kuh et al. (2010), and Morrill (2007) on mission and leadership, this research project assesses, through qualitative case study analysis, the context and processes in which four institutions address issues of retention and graduation of Latino and African American students and financial aid practice. In so doing it looks at decision-making processes relative to financial aid, with particular attention to how mission and leadership influence policy and practice at these
universities. It looks particularly at how institutions manage mission in the context of multiple internal needs and external challenges. The dissertation reviews how these four institutions align “espoused missions” with their “enacted missions” (Schein, 2010).

As financial aid is increasingly a major commitment of an institution’s operating budget—particularly for private, nonprofit institutions—how institutions make decisions around allocation of these resources, to what extent those decisions are made in the context of the stated mission of the college or university and what role leadership has in determining institutional choices has the potential to inform the national discussion on financial aid policy and student attainment. It can, particularly through the case study analyses, explore some of the difficulties institutions have enacting their mission in support of minority and high need students while maintaining financial viability in the current economic environment.
CHAPTER 2

REVIEW OF THE LITERATURE

This chapter initially reviews the two broad categories of literature on student persistence, social-interactionist and economic approaches. Take together these models suggest that a broad range of factors can influence persistence. The general question then is how colleges and universities, consistent with their missions, affect the social and economic factors that might maintain and even improve persistence, and specifically make decisions with respect to financial aid practice. Similarly, how do they make these decisions—what is the organizational culture and process in which such decisions are made? The literature invites examination of quantitatively—the relationship between financial aid and persistence, and, qualitatively, the effect of mission and organizational culture on decision-making on financial aid practice and retention of Latino and African American students.

There is, perhaps, nothing as well researched in the field of higher education as the phenomenon of student departure. Student retention and graduation have been studied at both the student and institutional level and from the perspective of the role of academic, communal, and economic factors in the persistence of students in general and minority students in particular. Although this study explores the influence of institution level factors on the persistence and graduation of Latino and African American students, institutional policies are based on some understanding-explicit or implicit, on what factors contribute to persistence for individual students. A general review of the persistence literature that outlines what is known about student success at the individual
and institutional level is necessary to put in context the role of financial aid practice in student success.

While multiple theories exist, much of the research has evolved from two types of models—the interactionalist or student fit model and economic models (Bean, 1981; Tinto, 1987, 1995, 2000, 2004). Each viewed student persistence from a different perspective asserting that different factors influenced student decision-making that led to graduation or departure. In the interactionalist model, how well the student integrated academically and/or socially with his college or university was the primary factor in determining if he would persist to graduation. In contrast, economic models looked at variables such as finances and financial aid that had direct and indirect influence on student persistence (St. John, et al., 2000). Some researchers have advocated that integration of the elements of the two models may provide the best analysis for why students depart from their institutions prior to graduation, but an understanding of each is required for any discussion of the connection between institutional role in meeting unmet needs and Latino and African American student graduation rates.

The Interactionalist or Student Fit Model

Much of the early work on persistence took as its departure the research of French sociologist Emile Durkheim. Durkheim’s hypothesis on why people commit suicide could be transferred, researchers believed, to why college students departed prior to graduation. At the center of the theory was Durkheim’s research indicating that when a person shares values with a group—is integrated into similar religious, political or social groups—he is less likely to commit suicide (Bean, 1981; Metz, 2004). For persistence theorists, the shared group values that Durkheim referenced translated to academic and
social integration in the college experience. The more integrated the student was into the academic and social life of the campus, the less likely she was to drop out (Bean, 1981; Tinto, 1995).

Building on Durkheim’s research on shared communal values and student retention, Tinto’s interactionalist model postulated that the student was a member of the college or university community who, unless comfortable socially and intellectually, would depart for another institution or away from higher education altogether. Noting that the majority of student departure was not due to academic dismissal, Tinto argued that factors other than academic progress contributed to whether a student would persist (Tinto, 1995).

The interactionalist model focused on the student’s development in late adolescence and early adulthood and how that development resulted in adjustment to the higher education environment. Although the characteristics of the student prior to entry—family background, personal attributes, and pre-college preparation—affect ed the student’s adjustment to campus, the emphasis of Tinto’s model was integration post matriculation. Academic integration—both meeting academic standards and identifying with the academic culture of the institution—reduced the likelihood of departure. Positive faculty and peer group interaction as well as participation in extracurricular activities resulted in a level of “social integration” to the college or university. Social integration translated to a commitment to the institution and reduced the potential for student departure as well (Tinto, 1995). Tinto posited additionally that the student’s commitment to his own academic and/or occupational goals and his commitment to the institution influenced his persistence to graduation (Braxton, Sullivan, & Johnson, 1997).
In Tinto’s interactionalist model, students either integrated to the environment at the college or university or they departed. There were a number of reasons why students might not integrate—they were unable to conform to a more challenging intellectual or social setting due to limited academic ability or preparedness, they were dissatisfied with the quality of teaching and the intellectual life of the institution, or they felt isolated socially. In some cases, students were unable to integrate to a college environment because they were incapable of separating from past associations—including peer groups from their past and/or their families (Tinto, 1995).

Focusing on the core of Tinto’s (1995) theory—that the student’s academic and social integration is necessary for the student to persist to graduation—various researchers explored variables believed to contribute to integration. Findings that faculty/student interaction contributes to student engagement have been consistent over the last few decades. An early study found that lack of contact with faculty members and/or student perceptions that interactions with faculty were simply transactional or mechanical rather than relational affected student persistence negatively (Pascarella & Terenzini, 1977). Berger and Milem (1999), conducting research at a highly selective, Research I institution, discovered that early interaction with faculty increased the likelihood of positive student perceptions and persistence. Astin, Keup, and Lindholm (2002) found a strong connection between faculty interaction and academic and social integration when tracking two separate cohorts of freshman entering college in 1985 and 1994. Results showed that positive student outcomes were partially the consequence of interaction with faculty and satisfaction with faculty and administrators.
While these studies demonstrated that faculty interaction was related to the student’s commitment to the institution, other research revealed that interaction with peers fostered institutional commitment at a greater level than did interaction with faculty (Astin, 1993; Oseguera & Rhee, 2009), in their research of institutional retention climate and student persistence in 262 baccalaureate-granting institutions, found that commitment to teaching and learning, multicultural environments and active learning did not contribute to student persistence while positive peer environments did. Other research discovered that engagement with peers resulted in a commitment to the college where the student initially enrolled and that integration into the social life of the institution was connected to graduation rates (Astin, 1993; Berger & Milem, 1999; Pascarella, 1982).

Academic performance, as defined by grades, is an indicator of integration and has been one of the best predictors of persistence (Astin, 1993; Ishitani & DesJardins, 2002-2003). In both single-institution and national studies, research has found that the contribution of students’ grades to persistence is often noteworthy. The relationship between grades and persistence was consistent even when variations in student preparation, socio-economic background, and college experiences were considered (Pascarella & Terenzini, 2005). Furthermore, research indicated that academic achievement in the first year of college had a strong effect on retention to sophomore year and beyond (Cabrera, Nora, & Castaneda, 1993b; Pascarella & Terenzini, 2005).

At the heart of the interactionalist or student fit model of persistence is the belief that the student integrates into the life of the institution both academically and socially leaving behind old relationships (i.e. friends, family, etc.) in order to do so. Research over the last 30 years indicates that the measures of faculty interaction (Astin, Keup, &
Lindholm, 2002; Berger & Milem, 1999; Pascarella & Terenzini, 1977), connection to peers (Astin, 1993; Berger & Milem, 1999; Cabrera, Nora, & Castaneda, 1993; Pascarella, 1982) and academic progress (Astin, 1993; Ishitani & DesJardins, 2002-2003; Pascarella & Terenzini, 2005) have played a positive role in student persistence among those student populations and institutions studied.

At the same time, research that explored persistence of underrepresented minority students found that the variables that influenced persistence for majority students have not always influenced persistence for Latino, African American, and Native American students (Cabrera, Terenzini, Pascarella, & Hagedorn, 1999; Hurtado & Carter, 1997; Nora & Cabrera, 1996). Studies found that underrepresented minority students did not need to leave their families of origin and/or high school peers in order to be successful in college; that some academic experiences had a connection to academic integration while others did not; and that high grade point averages did not influence a sense of belonging or student integration.

In later writings, Tinto (1995) recognized that part of the adjustment phase described in his model was different for students from some racial and ethnic backgrounds, noting that students of color often did not find supportive communities within their postsecondary institutions that would encourage their social integration—in part due to a lack of critical mass of students from the same racial or ethnic background. A number of researchers (Cabrera et al., 1999; Guiffrida, 2006; Hurtado & Carter, 1997; Nora & Cabrera, 1996), though, have criticized Tinto’s basic premise that in order to adjust to college, students needed to separate from past associations. They suggested that for African American and Latino students moving to predominantly White institutions
breaking with home and community support structures would also be a break from
culture and ethnicity. Hurtado and Carter (1997) rejected Tinto’s premise that minority
students must acculturate to be successful, arguing that such acculturation would require
students to reject cultural differences that provided a sense of identity. Instead,
researchers found that the support of parents and other family and community members
had a positive influence on academic performance and thus persistence on these minority
student populations (Cabrera et al., 1999; Nora & Cabrera, 1996). They found that not
only were pre-existing familial and community support structures important, but also
social systems within the college or university that reinforced students’ racial and cultural
identities (Guiffrida, 2006). In this case, it was clear that persistence factors that might
influence majority populations had a different result with Latino and African American
students.

Subsequent research would determine that race/ethnicity played a role in other
persistence factors as well. Berger and Milem (1999) found that African American
student participants who entered the university with strong levels of commitment to the
institution were less likely to identify the university as being supportive and less likely to
persist than White students. Hurtado and Carter (1997) studied Latino student integration
on college campuses and its link to retention and graduation and found that students of
color engaged but were less motivated by factors described in early models. Hurtado and
Carter investigated how and if student background and college experiences in freshman
and sophomore years resulted in a “sense of belonging” (p. 324) for Latino students in
their junior year, and found a connection between certain academic activities and
belonging. For example, students who discussed course content outside of class with
faculty and other students, participated in culturally-oriented organizations—both on and off-campus, and took part in mainstream campus organizations (e.g. student government, sports teams, religious clubs) had a positive sense of belonging. However, factors that did not increase student integration were high grade point averages, working on research projects with faculty or independently, or being invited to a faculty member’s home.

The interactionalist model has been critiqued for reasons other than its applicability to underrepresented minority and low-income students, and the model has been modified in light of empirical testing. Not all of Tinto’s propositions have had strong support. A review of studies that empirically tested Tinto’s 13 primary propositions found that some of the propositions were supported by empirical research—others were not. With regard to the influence of student characteristics on the student’s commitment to the institution, his commitment to the goal of graduating from college, and the likelihood of his persistence to graduation, research from multi-site studies indicated that there was either moderate or strong support that student characteristics influenced persistence (Braxton et al., 1997). Research indicated that student background characteristics, particularly socio-economic status, had an effect on the path that the student takes to postsecondary education, and that the type of institution the student chose often predicted retention and graduation (Cabrera, Burkum, & La Nasa, 2003).

While Tinto’s model was originally developed to study persistence at individual institutions, some researchers applied his model in multi-site studies. These studies began to note that persistence differed based on institutional type suggesting that there was a relationship between type of postsecondary institution and persistence. Pascarella and Terenzini (2005) reported that findings on student graduation trends in the 1980s and
1990s indicated that the type of postsecondary experience was connected to rates of graduation. For example, students who began postsecondary studies at community colleges were less likely to graduate than those who began their studies at four-year institutions (Whitaker & Pascarella, 1994). Patterns of student enrollment in postsecondary institutions indicated that lower income students more often matriculated to community colleges or for profit institutions than did students from middle or upper income brackets—a result of multiple variables of which income is one, but academic preparation and access to information—are others (Baum, Ma, & Payea, 2010).

In summary, the interactionalist or student fit model of persistence was designed to explore how student background characteristics, student attitudes, and institutional activities influenced student persistence at single institutions. Researchers following this model expanded Tinto’s original concept to include multi-site studies to discern patterns of influence of such factors as background characteristics, peer interaction, faculty/student interaction, and academic progress on persistence (Astin, 1993; Astin, Keup, & Lindholm, 2002; Braxton, Sullivan, & Johnson, 1997; Cabrera, Nora, & Castaneda, 1993b; Ishitani & DesJardins, 2002-2003; Pascarella & Terenzini, 2005). Some studies noted differences between the responses of minority and majority students to certain faculty/student interactions, separation from family and former peers, and grades and persistence (Berger & Milem, 1999; Hurtado & Carter, 1997).

Moving from individual student characteristics and interactions and programs within colleges and universities, studies also looked at the connection between types of postsecondary institutions and graduation rates and found that the type of institution of higher education in which a student initially enrolls relates to his or her persistence and
graduation (Cabrera et al., 2003; Whitaker & Pascarella, 1994). The interactionalist model, while imperfect, provided a framework for reviewing factors that influence student persistence including student background characteristics and institutional type.

Economic Models of Persistence

Traditional persistence models—particularly Tinto’s early persistence model—primarily focused on how the student’s late adolescence and early adulthood development affected her personal and academic growth and the influence of those changes on college persistence. Tinto’s early persistence models did not focus on connections between student retention and public policy issues such as finances and financial aid. In early models, finances were viewed as a factor only in student decision-making around college choice—at or before the point of enrollment. Once a student was on campus finances were no longer considered a variable in the student’s success.

Economic models that explored the relationship between finances and financial aid and student persistence include early integrative models, ability to pay models and the college choice-persistence nexus models (St. John, Cabrera, Nora, & Asher, 2000). Bean’s model of student attrition, one of the two early student integration models, included finances as a factor that influenced persistence.

John Bean’s industrial model of student attrition was differentiated from interactionalist models by its inclusion of factors external to the institution—including finances (Bean, 1979). Bean’s model looked at student background characteristics in relation to persistence, but also reviewed the connection between such variables as the opportunity to find employment and the decision-making process that influenced student retention.
Bean’s model also incorporated attitudinal variables such as perception of institutional quality, perceived value of the education, and the student’s sense of academic quality. Most importantly for this discussion, Bean introduced the factor of the student’s perception of difficulty in financing his education into his persistence model (Bean, 1981). Unlike Tinto’s early interactionalist model, which limited analysis to the interplay between student characteristics and factors within the institution, Bean’s student attrition model looked at how variables outside of the institution, including financial factors, influenced student decisions around persistence.

As integrative models began to explore the connection between finances and persistence, studies evolved from measuring direct influences of finances and financial aid on retention to reviewing both the direct and indirect connection between finances and student persistence. Although early studies (e.g., Terkla, 1985; Voorhees, 1985) controlled for predictors of persistence such as socioeconomic status and academic preparation, they did not address how student finances and financial aid interacted with these and other variables in a complex manner as did later research (St. John et al., 2000).

Research on the relationship of financial aid to student persistence has a history that dates to the early 1980s when Voorhees (1985) and Terkla (1985) both found that financial aid had a direct relationship to student persistence. Using structural equation modeling, Voorhees, explored the interrelationships between persistence and selected variables including grade point average, financial need, minority status, gender, and academic preparation and found that for high need students, federal student aid programs had a positive effect on freshman to sophomore persistence; that non-campus based aid also had a positive relationship to freshmen to sophomore retention; and that living on-
campus contributed to freshman to sophomore persistence rates. Terkla found that when financial aid was considered as a variable it had the third strongest direct effect on persistence of the variables reviewed.

Both the total financial aid dollars distributed and the type of financial aid awarded has shifted markedly since the early 1980s. More recent researchers have created models that integrate economic theory with persistence theory as they examine the role of various types of financial aid on student persistence. Studies (Cabrera, Nora, & Castaneda 1993a; Cabrera, Nora, Castaneda, & Hengstler, 1992; Cabrera, Stampen, & Hansen, 1990) drew on Tinto’s interactionalist model while incorporating the ability to pay economic theory and receipt of financial aid into the research model. These researchers created a model based on the theory that persistence was a longitudinal process—the result of numerous factors (including financial) and multiple interactions between student and institution (St. John et al., 2000). Expecting to find that the student’s ability to pay would relate to such persistence factors as integration into the social and academic life of the institution, some studies determined that to be the case (Cabrera, Nora, & Castaneda, 1993a; Cabrera et al., 1992) while others saw no clear connection (Cabrera et al., 1990).

For the ability to pay theorists, finances and financial aid were meaningful in the context of how they contributed to the student’s ability to participate in the academic and social life of the institution. A student’s financial situation could be a barrier to integration into campus life, and financial subsidies could help remedy that barrier. The primary factor influencing persistence continued to be integration (Cabrera, Nora, & Castaneda, 1993a; Cabrera et al., 1992; Cabrera et al., 1990).
In contrast, the college choice-persistence nexus theorists argued that students attended specific colleges based on expected costs and benefits, that these perceived costs and benefits form an understanding or contract between the student and the college, and that this contract is reevaluated post-matriculation based on the student’s experience. Persistence or departure is the result of that reevaluation (Paulsen & St. John, 1997). Costs and access to financial resources to underwrite educational costs is central to nexus theory.

Nexus theorists contend that both perceptions of financial issues (i.e. a student believes that a tuition price is prohibitive or that she will receive sufficient financial aid to afford the institution) as well as actual costs of college influenced both enrollment and persistence decisions (Paulsen & St. John, 2002). “Financial nexus theory argues that if students perceive low tuition or low living costs to be very important in their choice of college, such cost-consciousness may also have a direct impact on their subsequent persistence decisions” (p. 193). Both perception of costs and availability of resources and the reality of costs and access to financial subsidies influence persistence, according to nexus theorists.

A number of studies pointed to a positive connection between the receipt of institutional aid and persistence. Perna (1997) explored the relationship between financial aid and persistence and learned that while there were higher rates of persistence for those who received financial aid than for those who did not (51.7% vs. 43.8%), the total effect of financial aid was small compared to other factors that influenced retention. There were, however, higher completion rates for aid recipients who received work study and institutional aid than for students who did not. There were lower completion rates for
those who received loans than for those who did not. Both Gansemer-Topf and Schuh (2005) and Price and Davis (2006) found a positive connection between the receipt of institutional aid and persistence. Gansemer-Topf and Schuh explored institutional expenditures in support of financial aid at liberal arts colleges and found that the percentage of institutional support positively influenced retention and graduation in all three of the three years reviewed—1992, 1997 and 2002. Price and Davis utilized a nationally representative sample of students from throughout the United States and Puerto Rico who had attended four-year public and private colleges and universities and found that receiving institutional grant aid positively predicted six-year graduation rates.

The economic models described above often did not disaggregate by race and social class, yet social class and race/ethnicity are factors in how students and their families perceive finances and financial aid in decisions around college persistence. Paulsen and St. John (2002) found that lower income students were more influenced in their persistence decisions by a lack of grant aid and/or sufficient grant aid, while insufficient access to loans and work study affected working class students. Price and Davis (2006) suggested that receipt of institutional aid was a predictor of persistence and graduation for low and middle income students. In a review of persistence studies, St. John et al. (2000) reported that financial challenges affected low-income students much more severely than high income students and advocated for an incorporation of economic variables into persistence modeling.

Examining finances and financial aid and their influence on the persistence of African American and White students, St. John, Paulsen, and Carter (2005) found that African American students were more affected than White students by grant aid and low
tuition costs when choosing where to enroll. African American students who received financial support also persisted at a higher rate than White students who received financial support. The researchers noted that African American students who made decisions to attend a particular college or university as a result of a financial aid offer had an increase in persistence of 5% over those who had not made enrollment decisions based on financial aid offers. African American students averaged higher amounts of grants and loans, but were enrolled in institutions with lower tuition costs indicating that even with greater financial aid packages, these students could not afford or chose not to attend more expensive institutions (St. John et al., 2005). St. John et al. (2005) indicated that they also found widespread use of loans to finance higher education among Whites—many from high income brackets. They stated that the use of loans afforded White students an advantage as loans could be used to pay for living expenses as well as tuition and fees.

In summary, various economic models have explored the relationship between finances and financial aid and student persistence to find that, in varying degrees, the cost of a postsecondary education and the availability of resources to underwrite those costs influence student departure decisions (St. John et al., 2000). Finances and financial aid awards have had both a direct and indirect relationship to student persistence through the perceived ability and the actual ability of the student to pay for a postsecondary education (Paulsen & St. John, 2002). In some studies that reviewed the influence of finances and financial aid on persistence, finances and financial aid were positively connected to social and academic integration and to persistence (Cabrera, Nora, & Castaneda, 1993; Cabrera et al., 1992; Cabrera et al., 1990). For low-income and underrepresented minority students, tuition costs and the availability of financial aid have been found to influence
persistence at a higher level than they do for middle and upper income and White students (St. John et al., 2005). Titus (2006) found that the probability of graduating from college is negatively associated with having unmet need. Different types of financial aid affect persistence and graduation in different ways (Perna, 1997). Several studies have indicated that institutional grants influence persistence positively, particularly for low and middle income students (Gansemer-Topf & Schuh, 2005; Price & Davis 2006).

The research indicates that educational costs and financial aid resources to meet costs are related to a student’s departure decisions, particularly for low-income and underrepresented minority students. The role of institutional grants in persistence of low and middle income students has been explored and there is some evidence that institutional support for low- and middle-income students influences graduation of those students positively (Gansemer-Topf & Schuh, 2005; Price & Davis 2006). What has not been studied is the relationship between institutional grants and persistence for underrepresented minority students. It is expected that this type of financial aid would play some role in persistence and graduation of Latino and African American students, as these populations have a higher dependence on student aid than white students (Baum, Ma, & Payea, 2010). The exploration of how institutional financial aid practice relates to African American and Latino student graduation rates is important in an environment in which financial aid practice has shifted dramatically and in which the Latino student population is growing rapidly.
The Institution as the Unit of Analysis

Retention research has focused on individual student experience, but it has also focused on characteristics of colleges and universities that influence student persistence. Research that utilizes the institution as a unit of analysis examines the possibility that institution type and institutional policies have an independent effect on persistence distinct from student or environmental characteristics. Any discussion of student retention should include a review of the research of those institutional characteristics that have been found to be related to persistence and graduation. As this thesis is primarily concerned with institutional practice, institutional type and the relationship of institutional characteristics to retention and graduation are important to consider.

The type of institution a student attends relates to his or her path to graduation, and the type of institution in which a student enrolls is often reflective of the student’s income status (Cabrera et al., 2003). Consequently, reviewing persistence from the institutional perspective when considering retention and graduation of low-income and minority students is warranted. In the category over which institutions have discretion fall policies related to financial aid. Institutional grants are a matter of institutional policy as institutions can and do choose how to distribute aid to serve particular institutional purposes (Kalsbeek & Hossler, 2008).

While limited, the body of persistence research that has focused on the institution as the unit of analysis has examined the size of the institution, its selectivity, the composition of the student body, the percentage of students living on campus, as well as institutional resources expended on instruction, academic and student support services
(Oseguera, 2005-2006). What these studies suggest is that institutional characteristics influence persistence.

Oseguera (2005-2006) found that the size of the institution was related to student persistence. Reviewing institutional characteristics relative to various racial/ethnic groups, Oseguera found that attending large institutions was negatively related to retention for African Americans, Asian Americans, Whites, and Mexican American undergraduates. Attending a large institution was a negative predictor of four and six-year graduation rates for all four groups, but being a student at a large university had a more pronounced negative effect on graduation rates for Asian American and Mexican American students than for African American and White students. The size of the institution attended by students had a negative relationship to persistence and graduation for students from all racial and ethnic backgrounds, but the relationship was distinct for Asian American and Mexican American students.

Adelman (1999) and Pascarella and Terenzini (2005) noted that students at private institutions persisted at higher levels than those at public institutions. Astin cautioned, however, that many public colleges and universities are large and persistence and graduation rates may be influenced by size rather than the fact that the institution is public. Other descriptive data indicated that there was an increased probability of graduation within six years if a student was enrolled in a private, nonprofit institution rather than a public college or university or a for profit institution (Baum, Ma, & Payea, 2010). The selectivity of the institution predicts student persistence and graduation rates for the majority student population (Baum, Ma, & Payea, 2010; Marcus, 1989; Pascarella
& Terenzini, 2005; Perna, 1997) as well as for students of color (Astin, 1993; Oseguera 2005-2006).

The relationship of the racial composition of the student body on persistence is not entirely understood. Chang (1999) explored the question of student body composition from the perspective of racial diversity and determined that a racially diverse environment had a positive effect on retention. His study of almost 12,000 students at 370 institutions found that a racially diverse environment encouraged socializing across race as well as the specific discussion of racial issues. He noted that socializing across racial/ethnic groups had a direct positive effect on student satisfaction with both college and self and an indirect positive relationship to student retention.

Oseguera (2005-2006) found that attending institutions with large numbers of students of color enhanced persistence and degree completion for Asian American and Mexican American students. For White students, however, the relationship of a diverse student body to graduation was nonexistent when looking at six-year graduation rates and slightly negative at the four-year graduation level. Oseguera found that there was a negative relationship between high numbers of African American students and graduation rates of both African American and White students, noting that institutions with large numbers of African American students might represent other characteristics of the institution. She indicated that the percentage of African American students in undergraduate student bodies is negatively associated with selectivity and percentage of residential students and positively associated with enrollment size and higher student-faculty ratio. Once these institutional characteristics are controlled for any negative effect of a high percentage of African American students on campus was mitigated.
Whether the student body is primarily residential or commuter also is related to institutional graduation rates. Several researchers have determined that institutions with a high percentage of residential students had higher persistence and graduation rates (Astin, 1993; Oseguera, 2005-2006; Titus, 2006), and that, conversely, institutions with a high percentage of commuter students have low persistence and graduation rates (Astin, 1993).

Prior research indicates that size, selectivity, and student body composition are institutional characteristics that can predict persistence and graduation rates. This thesis explores the influence of institutional levels of support for students—as defined by the percentage of need met and the percentage of institutional grants allocated to needy students—on student persistence and graduation. Given the complex interaction of multiple factors related to student success any analysis must also take into account those institutional characteristics found to predict student persistence and graduation. At the individual student level, research has shown that the persistence of students is negatively related to students having unmet financial need (Titus, 2006). Titus’s findings suggest that it is important to look at the factors that make possible or constrain institutions from meeting student financial need.

Institutional characteristics, such as size, selectivity, and composition, are often a function of current mission. The composition of the student body - what students an institution recruits and supports financially- is to some extent, a result of choices made within the context of mission and leadership. As the relationship of financial aid practice to success of Latino and African American students is explored in this study, the role of institutional decision-making should offer insight into policy and practice that has the
potential for supporting student persistence and graduation. Mission and leadership are often central to decision-making processes in institutions of higher education (Morrill, 2007; Schein, 2010). Examining institutional financial aid policy and practice in the context of mission is expected to provide insight on how institutional leaders make decisions that impact on policies potentially affecting persistence and completion, especially of low-income and underrepresented minority students.
CHAPTER 3
METHODOLOGY

This study uses a mixed methods research design to, first, examine through quantitative analysis, patterns of institutional aid distribution and the impact of aid distribution relative to graduation rates among private, nonprofit U.S. colleges and universities. It also uses case studies to look more closely at how institutions make decisions regarding financial aid, especially with respect to improving persistence and completion for poor and minority students. An explanatory research design like this offers the opportunity to “explain in more detail through qualitative research the initial quantitative statistical results” (Creswell, 2007).

The quantitative analysis included two phases: an initial phase in which descriptive statistics of the dataset were reviewed for trends in student graduation rates and commitment of resources for financial aid and a secondary phase in which path analysis was used to research the relationship between two financial aid practices and overall student graduation rates and the graduation rates of Latino and African American students using institution-level data.

The quantitative phase of the study addresses the following questions:

1. Is there a relationship between the proportion of need met at an institution and graduation rates taking into account other relevant institutional-level variables including size, selectivity, student body composition, and endowment per FTE

1a. Is there a relationship between the proportion of need met at an institution and graduation rates of African American students taking into
account other relevant institutional-level variables including size, selectivity, student body composition, and endowment per FTE?

1b. Is there a relationship between the proportion of need met at an institutional level and graduation rates of Latino students taking into account other relevant institutional-level variables including size, selectivity, student body composition, and endowment per FTE?

2. Is there a relationship between the proportion of total institutional aid that is allocated to needy students and graduation rates taking into account other relevant institutional-level variables including size, selectivity, student body composition, and endowment per FTE?

2a. Is there a relationship between the proportion of total institutional aid that is allocated to needy students and graduation rates of Latino students taking into account other relevant institutional-level variables including size, selectivity, student body composition, and endowment per FTE?

2b. Is there a relationship between the proportion of total institutional aid that is allocated to needy students and graduation rates of African American students taking into account other relevant institutional-level variables including size, selectivity, student body composition, and endowment per FTE?

Information from the initial quantitative phase provided a framework for choosing participants for the case studies. Case studies of four institutions identified in the initial quantitative research phase examined institutional financial aid policy and practice and its relationship to student graduation rates, particularly underrepresented minority students.
The case studies involve a qualitative analysis of transcribed and coded response in interviews to address the following question:

3. How do institutions make decisions and prioritize allocations to financial aid in the context of other institutional demands and within the framework of institutional mission?

Data collected from this study will help provide higher education leaders with information to make decisions about allocation of resources in the context of institutional demands and in the context of institutional commitment to graduation rates in general and graduation rates of underrepresented minorities in particular.

Quantitative Analysis: Data Collection and Analysis

The population for this study is the universe of private, nonprofit, four-year degree granting colleges and universities in the United States. Excluded from the study were single-purpose (e.g. seminaries), and graduate-only institutions, as well as colleges that did not offer four-year degrees. The dataset was created from Integrated Postsecondary Education Data System (IPEDS) 2008-09 data downloaded from Delta Project Data at http://www.deltacostproject.rog/data/download/download.php and Peterson’s Undergraduate Financial Aid Licensed Data Set 2009 (Common Data Set), which I purchased.

IPEDS is one of the education data collection programs conducted by the National Center for Education Statistics. IPEDS includes collected data from all postsecondary institutions that receive federal student financial aid. All postsecondary institutions receiving Title IV aid are required to report IPEDS data annually. Academic year 2009 data for four-year private institutions were selected from these two files and merged by
IPEDS ID. The Common Data Set (CDS) is a database developed through collaboration between college and university data providers and publishers such as the College Board, Peterson’s and *U.S. News & World Report*. Institutional-level financial aid information available through the Common Data Set is more extensive than that available through IPEDS and includes data on allocation of aid to needy and non-needy students and percentage of student need met by the institution. Institutions that participate in the Common Data Set do so entirely on a voluntary basis and the data impact rankings in *U.S. News & World Report*. Data from the Common Data Set, however, are used for *U.S. News and World Report* college rankings and considered to be a sufficiently accurate representation of institutional activity upon which to base published rankings. Too, the data on institutional aid to needy students reported in the Common Data Set and upon which the quantitative research in this dissertation are based are consistent with data reported on by the College Board. For the quantitative analysis, a database was assembled and a set of descriptive statistics of variables associated with persistence, diversity, and institutional wealth compiled and analyzed for the purpose of reviewing general trends in the data set.

Of the more than 1200 institutions in the combined IPEDS/Petersons, Inc. data set approximately 623 institutions reported on the level of need met and 563 provided information on institutional support for needy students. Institutions that offered this data were included in the path analysis if other institutional-level data required for the analysis was also made available. The following chart indicates the number of institutions that were included for each analysis. The six analyses follow in Chapter 4. Three examine the relationship between need met and overall, Latino, and African American student
graduation rates. Three examine the relationship between the percentage of institutional aid allocated to needy students and overall, Latino, and African American student graduation rates.

Table 1. Institutions Included in Analyses of Predictors of Graduation Rate at Private 4 Year Colleges and Universities

<table>
<thead>
<tr>
<th>Analysis</th>
<th>Number of Institutions Included</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predictors of Overall Graduation Rate at Private 4 Year Colleges and Universities (Need Met)</td>
<td>554</td>
</tr>
<tr>
<td>Predictors of African American Graduation Rate at Private 4 Year Colleges and Universities (Need Met)</td>
<td>543</td>
</tr>
<tr>
<td>Predictors of Latino Graduation Rate at Private 4 Year Colleges and Universities (Need Met)</td>
<td>534</td>
</tr>
<tr>
<td>Predictors of Graduation Rate at Private 4 Year Colleges and Universities (Percentage of Aid to Needy Students)</td>
<td>448</td>
</tr>
<tr>
<td>Predictors of African American Graduation Rate at Private 4 Year Colleges and Universities (Percentage of Aid to Needy Students)</td>
<td>448</td>
</tr>
<tr>
<td>Predictors of Latino Graduation Rate at Private 4 Year Colleges and Universities (Percentage of Aid to Needy Students)</td>
<td>442</td>
</tr>
</tbody>
</table>

Source: Analysis of IPEDS and Petersons, Inc. 2009-10 Data

Table 2 provides comparative information on the private, nonprofit, four-year colleges and universities that provided information to Petersons, Inc. through the Common Data Set on the percentage of need met with those institutions that did not provide this information. The institutions that reported the percentage of student need met and, thus, are included in the statistical analysis had higher overall graduation rates (61% v. 46%) as well as higher graduation rates for Latinos (53% v. 39%) and African American students (49% v. 36%). The colleges and universities reporting student need met tended to have smaller populations of underrepresented minority students (16%) than those private, nonprofit institutions that did not report (31%). The non-reporting schools were less wealthy with a mean endowment of $23,787 per FTE compared to a mean
endowment of $69,246 for the colleges and universities reporting, and less selective with a mean SAT of 1120 compared to the mean SAT of 1215 for reporting schools.

These descriptive statistics suggest that private, nonprofit colleges and universities in this study are more academically selective, more highly endowed, and have smaller percentages of Latino and African American students than the private, nonprofit institutions not reporting. The reporting schools also graduate students at a higher rate than the private, nonprofit schools that are not reporting the percentage of need met at their institutions.

Table 2: Comparison of Reporting and Non-Reporting Institutions: Percentage of Need Met

<table>
<thead>
<tr>
<th>Label</th>
<th>N</th>
<th>Reporting Mean</th>
<th>Non-Reporting Mean</th>
<th>Reporting Std. Dev.</th>
<th>Non-Reporting Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduation Rate Total Cohort</td>
<td>621</td>
<td>333</td>
<td>61.4</td>
<td>46.3</td>
<td>18</td>
</tr>
<tr>
<td>Graduation Rate Latino</td>
<td>591</td>
<td>281</td>
<td>39</td>
<td>27.9</td>
<td>29.4</td>
</tr>
<tr>
<td>Graduation Rate African Amer.</td>
<td>601</td>
<td>287</td>
<td>49.4</td>
<td>36</td>
<td>26.5</td>
</tr>
<tr>
<td>Endowment per FTE Log</td>
<td>612</td>
<td>308</td>
<td>69,246</td>
<td>23,788</td>
<td>166,842</td>
</tr>
<tr>
<td>Total Enrollment (Undergrad. &amp; Grad.) Log</td>
<td>623</td>
<td>392</td>
<td>3882</td>
<td>2541.4</td>
<td>5047.7</td>
</tr>
<tr>
<td>% Underrepresented Minority Log</td>
<td>623</td>
<td>392</td>
<td>15.5</td>
<td>30.8</td>
<td>16.5</td>
</tr>
<tr>
<td>SAT</td>
<td>559</td>
<td>278</td>
<td>61.9</td>
<td>66.2</td>
<td>19.1</td>
</tr>
</tbody>
</table>

Source: Analysis of IPEDS and Petersons, Inc. 2009-10 Data

Descriptive analyses show that the percentage of need met at the institutions in the analyses ranged from 3% to 100% and averaged 78%. As the percentage of need met was expected to relate to the wealth of the institution as defined by endowment per FTE, descriptive statistics were used to review if more highly endowed colleges and universities met need at a higher level. Descriptive statistics revealed that institutions with low endowments (less than $10,000 per FTE) met need on average at 67%, and colleges and universities with higher endowments (over $100,000 per FTE) met 93% of need. However, there was little difference in the percentage of need met between colleges.
and universities with endowments over $10,000 per FTE and under $100,000 per FTE. The percentage of need met at these institutions ranged from 76.3% to 83.3%. As Table 3 illustrates apart from the extreme ends of the distribution, there is little variance in the percentage of need met among institutions with quite different endowments per FTE.

Descriptive statistics also indicate that less well-endowed colleges and universities enroll a higher percentage of underrepresented minority students (17.5% at schools with endowments under $10,000 per FTE) than more highly endowed institutions in the data set (10.7% at institutions with endowments above $100,000 per FTE). Too, institutions in the population of private, nonprofit colleges and universities examined with lower endowments were less selective and graduated students at a lower rate than wealthier colleges and universities.

Table 3. Reporting Institutions: Need Met, SAT, and Percentage of Underrepresented Minority Students and by Endowment Band

<table>
<thead>
<tr>
<th>Endowment Bands</th>
<th>$0-9999</th>
<th>$10,000-19,999</th>
<th>$20,000-39,999</th>
<th>$40,000-99,999</th>
<th>$100,000+</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td># of observations</td>
<td>116</td>
<td>100</td>
<td>105</td>
<td>68</td>
<td>60</td>
<td>449</td>
</tr>
<tr>
<td>% of Need Met</td>
<td>66.82</td>
<td>76.03</td>
<td>80.9</td>
<td>83</td>
<td>92.76</td>
<td></td>
</tr>
<tr>
<td>% of Underrepresented Minority Students</td>
<td>17.45</td>
<td>14.15</td>
<td>11.9</td>
<td>10.67</td>
<td>10.67</td>
<td></td>
</tr>
<tr>
<td>SAT</td>
<td>1121</td>
<td>1167</td>
<td>1212</td>
<td>1278</td>
<td>1379</td>
<td></td>
</tr>
<tr>
<td>Graduation rate</td>
<td>51.91</td>
<td>58.02</td>
<td>65.8</td>
<td>69.93</td>
<td>79.03</td>
<td></td>
</tr>
</tbody>
</table>

Source: Analysis of IPEDS and Peterson, Inc. Data

Table 4 offers comparative information on the private, nonprofit, four-year colleges and universities that provided information on institutional aid allocated to students with need and those institutions that did not provide that information. The institutions that reported the percentage of institutional aid awarded to needy students are, thus, included in this analysis had higher overall graduation rates (62% v. 48%) as well as higher graduation rates for Latinos (53% v. 42%) and African American students.
(49% v. 39%). The colleges and universities reporting institutional aid awarded to needy students tended to have smaller populations of underrepresented minority students (16%) than those institutions that did not report (30%). These descriptive statistics follow the same pattern as those with regard to the percentage of need met. That is in both cases the institutions reporting had higher graduation rates and lower percentages of underrepresented minority students. The reporting and non-reporting colleges and universities had similar average endowments per FTE ($55,225 to $51,552) and admit rates (63.3% v 63.2%). Reporting institutions were more selective with a mean student SAT score of 1207 compared to a SAT of 1150 at the non-reporting schools.

These descriptive statistics suggest that private, nonprofit colleges and universities in this study that reported on the percentage of institutional aid awarded to needy students have higher graduation rates, are more academically selective and have smaller percentages of Latino and African American students than the private, nonprofit institutions not reporting. The data indicate that the reporting schools included in this analysis also graduate students at a higher rate than the private, nonprofit schools that are not reporting the percentage of institutional aid awarded to needy students.

<table>
<thead>
<tr>
<th>Label</th>
<th>N</th>
<th>Reporting Mean</th>
<th>Non-Reporting Mean</th>
<th>Reporting Std. Dev.</th>
<th>Non-Reporting Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduation Rate Overall</td>
<td>563</td>
<td>61.5</td>
<td>48.4</td>
<td>16.8</td>
<td>21.4</td>
</tr>
<tr>
<td>Graduation Rate Latino</td>
<td>543</td>
<td>52.9</td>
<td>41.7</td>
<td>27.2</td>
<td>30.9</td>
</tr>
<tr>
<td>Graduation Rate African Amer.</td>
<td>550</td>
<td>49.4</td>
<td>38.8</td>
<td>25.9</td>
<td>25.8</td>
</tr>
<tr>
<td>Endowment per FTE Log</td>
<td>557</td>
<td>55225</td>
<td>51553</td>
<td>116,586</td>
<td>177,550</td>
</tr>
<tr>
<td>Total Enrollment Log</td>
<td>563</td>
<td>3882.5</td>
<td>2757.2</td>
<td>5047.7</td>
<td>4559.5</td>
</tr>
<tr>
<td>%Underrepresented Minority Log</td>
<td>563</td>
<td>15.5</td>
<td>29.9</td>
<td>16.5</td>
<td>31.6</td>
</tr>
<tr>
<td>Admit Rate</td>
<td>551</td>
<td>63.3</td>
<td>63.2</td>
<td>18</td>
<td>21.7</td>
</tr>
<tr>
<td>SAT</td>
<td>517</td>
<td>1207.4</td>
<td>1150.5</td>
<td>131</td>
<td>157.4</td>
</tr>
</tbody>
</table>

Source: Analysis of IPEDS and Petersons, Inc. 2009-10 Data
Of the responding four-year, private, nonprofit institutions, the percentage of aid based on need averaged 86.7% and ranged from 3% to 100%. Descriptive statistics (Table 5) show that the percentage of aid allocated to needy students is unrelated to endowment levels.

Table 5: Descriptive Statistics: Institutional Aid to Needy Students by Endowment Band

<table>
<thead>
<tr>
<th>Endowment Bands</th>
<th>$0-9999</th>
<th>$10,000-19,999</th>
<th>$20,000-$39,999</th>
<th>$40,000-$99,999</th>
<th>$100,000+</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td># of observations</td>
<td>116</td>
<td>100</td>
<td>105</td>
<td>68</td>
<td>60</td>
<td>449</td>
</tr>
<tr>
<td>% of Aid to Needy</td>
<td>83.62</td>
<td>84.15</td>
<td>81.1</td>
<td>78.65</td>
<td>82.04</td>
<td></td>
</tr>
</tbody>
</table>

Source: Analysis of IPEDS and Petersons, Inc. 2009-10 Data

Variables

The dependent variables are overall graduation rate, African American student graduation rate, and Latino student graduation rate. The primary independent variables of interest are need met and percentage of institutional aid allocated to students with need. The control variables included in the path analysis are variables shown to influence persistence: (a) selectivity, as defined by the average SAT/ACT scores of the incoming student class and percentage of students admitted from the applicant pool (Baum, Ma, & Payea, 2010; Marcus, 1989; Pascarella & Terenzini, 2005; Perna, 1997); (b) size of the institution as measured by total enrollment (Adelman, 1999; Astin, 1993; Pascarella & Terenzini, 2005) (d) percentage of African American and Latino students (Astin, 1993; Oseguera, 2005-2006; Titus, 2006); and (g) endowment per FTE of the institution. The following table describes the variables included in the analyses.
Table 6. Brief Description of Variables Included in the Analyses

<table>
<thead>
<tr>
<th>Label</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent Variables</strong></td>
<td></td>
</tr>
<tr>
<td>Overall Graduation Rate</td>
<td>Percentage of full-time, first-time, bachelor’s degree-seeking undergraduate students graduating within 150 percent of normal time at four-year institutions. (0-100%) Source: IPEDS</td>
</tr>
<tr>
<td>African American Graduation Rate</td>
<td>Percentage of full-time first-time, bachelor’s degree seeking African American undergraduate students graduating within 150 percent of normal time at four-year institutions. (0-100%) Source: IPEDS</td>
</tr>
<tr>
<td>Latino Graduation Rate</td>
<td>Percentage of full-time first-time, bachelor’s degree seeking Latino undergraduate students graduating within 150 percent of normal time at four-year institutions. (0-100%) Source: IPEDS</td>
</tr>
<tr>
<td><strong>Primary Independent Variables</strong></td>
<td></td>
</tr>
<tr>
<td>Percentage of Need Met</td>
<td>Percentage of need met for degree-seeking, full-time undergraduates (including freshmen) who were awarded need-based financial aid. Excludes any aid that was awarded in excess of need as well as resources that were awarded to replace estimated family contribution (PLUS loans, unsubsidized loans, and private alternative loans). (0-100%) Source: Petersons, Inc. (Common Data Set)</td>
</tr>
<tr>
<td>Percentage of Aid Awarded to Needy Students</td>
<td>Variable representing the percentage of a college or university’s institutional aid allocated to students with demonstrated need. (0-100%) Source: Petersons, Inc. (Common Data Set)</td>
</tr>
<tr>
<td><strong>Control Variables</strong></td>
<td></td>
</tr>
<tr>
<td>Admit Rate</td>
<td>The percentage of the total number of first time degree seeking/certificate seeking students admitted. (0-100%) Source: IPEDS</td>
</tr>
<tr>
<td>Percentage of Underrepresented Minority Students</td>
<td>The percentage of African American, Latino, and Native American students enrolled. (0-100%) Source: IPEDS</td>
</tr>
<tr>
<td>SAT</td>
<td>The SAT score represents the institution’s average incoming SAT score for the class at the 75th percentile. (400-1600) Source: IPEDS</td>
</tr>
<tr>
<td>Endowment per FTE</td>
<td>Endowment per FTE is the total endowment of a college or university divided by full time equivalency. This variable reflects the value of endowment assets at the end of the fiscal year and consists of gross investments of endowment funds, term endowment funds, and funds functioning as endowment for the institution and any of its foundations and other affiliated organizations. (0-$1.8 million) Log (0-14) Source: IPEDS</td>
</tr>
<tr>
<td>Total Enrollment</td>
<td>The total number of full and part-time students enrolled in courses creditable toward a degree or certificate; occupational programs, or courses for credit. (0-42,189) Log (0-14) Source: IPEDS</td>
</tr>
</tbody>
</table>

Source: IPEDS and Petersons, Inc. 2009-10 Data
The percentage of institutional aid allocated to needy students was calculated using information from Petersons, Inc. The colleges and universities that reported their distribution of institutional aid reported both on the distribution of aid that was need-based and aid that was categorized as merit aid. However, as some merit aid is allocated to students with need, a new variable was calculated to determine the total support of needy students with institutional financial aid. The variable was calculated in the following manner. The Total dollar amount of institutional Need-based scholarships/grants (Aid) (TNA) and the Total dollar amount of Non-Need based institutional scholarships/grants (Aid) (TNNA) was summed to determine the Total amount of scholarship/grant Aid awarded (TA). TNA + TNNA = TA

Then, the Total number of Full-Time degree seeking Undergraduate students with No financial Need who were awarded scholarships (TFTNN) was multiplied by the Average Aid award to degree-seeking Full Time undergraduates who had No financial Need (AAFTNN) to determine the Total amount of Aid awarded to Full Time students with No Need (TAFTNN). TFTNN x AAFTNN = TAFTNN.

The Total Aid awarded to Full Time students with No Need (TAFTNN) was subtracted from the total dollar amount of all institutional aid (TA) to determine the Total amount of institutional Aid awarded to Full Time students with demonstrated Need (TAFTN). TA – TAFTNN = TAFTN.

Finally, the Total dollar amount of Aid awarded to Full Time students with Need (TAFTN) was divided into the Total institutional Aid (TA) awarded to determine the Percentage of institutional Aid allocated to students with Need (PAN). TAFTN/TA = PAN.
Admit rate, percentage of underrepresented minorities, SAT scores, and endowment per FTE were calculated as well. The admit rate was calculated by dividing the total number of first time degree/certificate seeking students admitted by the total number of applications received from first time/degree seeking student. The percentage of underrepresented minority students was calculated by adding the total number of American Indian, African American, and Latino students and dividing by total enrollment. The new SAT score variable was calculated to include as many colleges and universities in the analysis as possible and to have a standard measure for analysis. Some institutions reported ACT composite scores for their incoming student classes, but did not report SAT scores while others reported SAT math and verbal scores, but not ACT scores. The variable was created in two steps. Institutional SAT verbal and math scores were combined to create a composite SAT score for those institutions that provided SAT information. ACT scores were converted to composite SAT scores using a standard concordance table provided by ETS (Educational Testing Services). Endowment per FTE was created by taking the value of an institution’s endowment assets and dividing by full time equivalency of the college or university. Three variables -endowment per FTE, total enrollment, and the percentage of underrepresented minority students- were skewed. The natural log of each variable was used in the path analysis.

The following two tables illustrate the correlations among the independent variables in the analyses.
As noted in Tables 7 and 8, SAT score appears correlated to log endowment per FTE in the analyses exploring the relationships of graduation rates and (a) percentage of need met (.55) and (b) the percentage of institutional aid allocated to needy students (.65). Analysis of the variance inflation factor (VIF) was undertaken to assess the severity of multicollinearity in the analyses. Although there is no formal cutoff value to establish...
when a VIP is too large, suggestions for a cutoff point range between five and ten 
(O’Brian, 2007; Curto and Pinto, 2011). As Table 5 illustrates, none of the variance 
inflation factors of the variables rose above four suggesting that there is not collinearity.

Table 9: Variance Inflation Factor: Variables included in the Analyses

<table>
<thead>
<tr>
<th></th>
<th>Overall Graduation Rate and Percent of Need Met</th>
<th>Hispanic Graduation Rate and Percent of Need Met</th>
<th>Black Graduation Rate and Percent of Need Met</th>
<th>Overall Graduation Rate and Aid to Needy</th>
<th>Hispanic Graduation Rate and Aid to Needy</th>
<th>Black Graduation Rate and Aid to Needy</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Need Met Students</td>
<td>1.64</td>
<td>1.65</td>
<td>1.62</td>
<td>1.04</td>
<td>1.04</td>
<td>1.04</td>
</tr>
<tr>
<td>% of Aid to Needy Students</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Admit Rate</td>
<td>1.68</td>
<td>1.74</td>
<td>1.70</td>
<td>1.40</td>
<td>1.43</td>
<td>1.40</td>
</tr>
<tr>
<td>SAT</td>
<td>2.92</td>
<td>3.04</td>
<td>3.08</td>
<td>2.51</td>
<td>2.63</td>
<td>2.62</td>
</tr>
<tr>
<td>Log Total Enrollment</td>
<td>1.33</td>
<td>1.34</td>
<td>1.36</td>
<td>1.30</td>
<td>1.32</td>
<td>1.32</td>
</tr>
<tr>
<td>Log Endowment per FTE</td>
<td>2.63</td>
<td>2.69</td>
<td>2.73</td>
<td>2.05</td>
<td>2.07</td>
<td>2.10</td>
</tr>
<tr>
<td>Log % Underrepresented Minority</td>
<td>1.25</td>
<td>1.28</td>
<td>1.24</td>
<td>1.27</td>
<td>1.28</td>
<td>1.25</td>
</tr>
</tbody>
</table>

Source: Analysis of IPEDS and Petersons, Inc. 2009-10 Data

Path Analysis

Path analysis is a statistical technique used primarily to examine the comparative 
strength of direct and indirect relationships among variables. A series of 
parameters are estimated by solving one or more structural equations in order to 
test the fit of the correlation matrix between two or more causal models, which 
are hypothesized by the researcher to fit the data. (Lleras, 2005).

Path analysis was chosen as the analytic tool for this study because it provides a 
mechanism to review the magnitude and significance of both direct and indirect 
connections between a number of variables that have been identified as relating to student 
persistence and retention. Path analysis provided a means to test the direct relationship of 
need met and graduation rates and the direct relationship of the percentage of aid awarded 
to needy students and graduation rates. It also explored the level to which need met and 
the percentage of aid awarded to needy students mediates the relationship between 
institutional- level student characteristics and graduation rates. Path analysis was used to 
analyze the two quantitative questions in this research project and their sub-questions.
Question 1: Is there a relationship between the proportion of need met at an institutional level and graduation rates, taking into account other relevant institution-level variables including size, selectivity, student body composition, percentage of Latino and African American students and endowment per FTE?

Figure 1. Path Diagram for Hypothesized Model Predicting Need Met and Student Graduation Rate.

The set of hypothesized direct causal relationships depicted in Figure 1 corresponds to the following path equations. The variables reflect institutional data as indicated by the subscript “i” in this and the subsequent equations exhibited in Figures 2-6.

Percentage of Need Met \( i = \rho_{NA}\text{Admit Rate}_i + \rho_{NM}\text{Minority}_i + \rho_{NS}\text{SAT}_i + \rho_{NE}\text{Endowment}_i + \rho_{NT}\text{Total Enrollment}_i + \epsilon_N\text{Need Met}_i \)

Graduation Rate \( i = \rho_{GA}\text{Admit Rate}_i + \rho_{GM}\text{Minority}_i + \rho_{GS}\text{SAT}_i + \rho_{GE}\text{Endowment}_i + \rho_G\text{Total Enrollment}_i + \rho_{GN}\text{Need Met}_i + \epsilon_G\text{Grad Rate}_i \)
Question 2: Is there a relationship between the proportion of total institutional aid that is allocated to needy students and graduation rates, taking into account other relevant institution-level variables including size, selectivity, student body composition, and endowment per FTE?

Figure 2. Path Diagram for Hypothesized Model Predicting Aid to Needy Students and Student Graduation Rate.

The set of hypothesized direct causal relationships depicted in Figure 2 corresponds to the following path equations:

Percentage of Institutional Aid to Needy Students \( i = \rho_{IA} \text{Admit Rate } i + \rho_{IM} \text{ Minority } i + \rho_{IS} \text{SAT } i + \rho_{IE} \text{ Endowment } i + \rho_{IT} \text{ Total Enrollment } i + e_{\text{IA}} \)

Graduation Rate \( i = \rho_{GA} \text{Admit Rate } i + \rho_{GM} \text{ Minority } i + \rho_{GS} \text{SAT } i + \rho_{GE} \text{ Endowment } i + \rho_{GT} \text{ Total Enrollment } i + \rho_{GI} \text{ Institutional Aid } i + e_{\text{Grad Rate } i} \)
The fit of the model was assessed using multiple methods. The following table provides goodness-of-fit measures for the six models presented. Hooper, Coughlan, and Mullen (2008) referencing (Byrne, 1998; Diamantopoulos and Siguaw, 2000) note: “Values for the SRMR range from zero to 1.0 with well-fitting models obtaining values less than .05.” Referencing Barrett, 2007, Hooper, Coughlan, and Mullen (2008) note that for the Chi-Square test, “A good model fit would provide an insignificant result at a 0.05 threshold.” The authors also indicate that for the Goodness of Fit Index (GFI) values above .90 are considered to denote a model with a good fit. Consequently, these values indicate that the models fit the data well.

Table 10: Summary of Goodness of Fit Measures for the Analyses

<table>
<thead>
<tr>
<th></th>
<th>Overall Graduation Rate and Percent of Need Met</th>
<th>Latino Graduation Rate and Percent of Need Met</th>
<th>Black Graduation Rate and Percent of Need Met</th>
<th>Overall Graduation Rate and Aid to Needy</th>
<th>Latino Graduation Rate and Aid to Needy</th>
<th>Black Graduation Rate and Aid to Needy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pr &gt; Baseline Model Chi-Square</td>
<td>&lt;.0001</td>
<td>&lt;.0001</td>
<td>&lt;.0001</td>
<td>&lt;.0001</td>
<td>&lt;.0001</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Standardized RMSR (SRMSR)</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
</tr>
<tr>
<td>Goodness of Fit Index (GFI)</td>
<td>1.0000</td>
<td>1.0000</td>
<td>1.0000</td>
<td>1.0000</td>
<td>1.0000</td>
<td>1.0000</td>
</tr>
<tr>
<td>Bentler-Bonett NFI</td>
<td>1.0000</td>
<td>1.0000</td>
<td>1.0000</td>
<td>1.0000</td>
<td>1.0000</td>
<td>1.0000</td>
</tr>
<tr>
<td>Bentler Comparative Fit Index</td>
<td>1.0000</td>
<td>1.0000</td>
<td>1.0000</td>
<td>1.0000</td>
<td>1.0000</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

Source: Analysis of IPEDS and Petersons, Inc. 2009-10 Data
Qualitative Analysis

Four institutions were identified for case study analysis: one institution that reported high graduation rates for African American and Latino students (defined as above the median graduation rate of the population examined) and fulfilled need at a high level (defined as above the median of the population examined); one institution that noted graduation rates of African American and Latino students at a high level, but indicated that it fulfilled need at a low level (defined as below the median of the population examined); one institution that reported fulfilling need at a high level and graduating minority students at a low level; and one institution that stated it fulfilled need at a low level and graduated Latino and African American students at a low level.

Scatterplots were created to identify the institutions in the dataset within the four categories described above. To ensure that the institutions chosen for qualitative analysis were similar in characteristics previously identified in the research as influencing retention and graduation (i.e. size, wealth, selectivity, and percentage of underrepresented minorities) I followed the following procedure: All colleges and universities in the population examined were separated by size: small (less than 5,000 students), medium-sized (5,000 to 15,000) and large institutions (more than 15,000). Within these categories, filters were applied to identify institutions with underrepresented minority enrollment near or above the median of the population examined (12%) and within 25-75% of the median for endowment, admit rate, and graduation rates. Two series of scatterplots were developed—one with African American student graduation rates and one with Latino student graduation rates. These scatterplots were compared in order to ensure that the institutions chosen did not have different patterns of Latino and African American
graduation rates (e.g., Latino graduation rates above the median and African American rates below the median).

Institutions that had medium-sized enrollments were chosen for the case studies as there were more colleges and universities of that size-26-that were close to the median of the percentage of underrepresented minority students and within 25-75% of the median for endowment, admit rate, and graduation rates than small colleges or large institutions with similar characteristics. Only seven large universities had comparable characteristics as did 25 small colleges. Since this study sought to understand the relationship of financial aid to graduation rates of African American and Latino students, choosing case study participants with sufficient-sized minority student bodies was important. Consequently, the 25 colleges with comparable characteristics, but small enrollments were excluded from participation in the qualitative analysis.

Of the 26 institutions with medium-sized enrollments, seven fulfilled student need at or above the median and graduated Latino and African American students above the median; 11 fulfilled need below the median and graduated underrepresented minority students above the median; three fulfilled need below the median and graduated Latino and African American students below the median; and six fulfilled need at or above the median and graduated minority students below the median.

I identified universities in each quadrant where either I or the President of my institution knew senior leadership who might be willing to participate in a case study. I identified one institution that graduated minority students at a low level and met need at a high level where I had no contact and requested access but was denied. I was allowed access to the four institutions where either I or the President of my university had contact.
Three of the four universities that agreed to participate are Catholic universities. Although it was not the intention of the study to focus on Catholic institutions, 12 of the 26 universities identified as potential case study sites are Catholic. As the President of my university is the past President of the Association of Catholic Colleges and Universities, he knows many presidents of Catholic universities and was instrumental in securing access to institutions willing to engage in this study.

The purpose of the four case studies was to review how the universities made decisions and prioritized aid in the context of their missions taking into account the role of leadership in defining how mission and aid intersected. As discussed in the review of literature, Schein (2010) describes two missions—espoused mission—how the institution describes itself in its written documents-and enacted mission, which is evident in policies, programs, priorities, allocation of resources and in who the institution serves. Kuh and colleagues (2010) find that those colleges and universities that closely align espoused mission and enacted mission are likely to be successful in engaging and graduating students). These case studies examine espoused and enacted mission of each of the universities and discuss the alignment between these two types of mission, particularly as reflected in financial aid and retention practices.

The President and the leadership’s efforts at defining mission in the context of aid may vary depending upon the ways in which leadership makes decisions. I reviewed each organization in the context of leadership and mission to understand the environment in which decisions, particularly decisions around financial aid policy and retention of Latino and African American students, were made. Public institutional statements, interviews
with leadership, and data collected in the quantitative phase provided a framework for reviewing mission, leadership, and decision-making at each university.

Given that financial aid policy involves numerous stakeholders and decision makers and is tied to institutional planning (Kalsbeek & Holler, 2008), the complex nature of the policy process lent itself to the use of a multiple case study approach. As Yin (2009) states, “A case study is an empirical inquiry that investigates a contemporary phenomenon in-depth and within its real life context especially when the boundaries between phenomenon and context are not clearly evident” (p. 18). Multiple case studies provide an opportunity to investigate a phenomenon in an in-depth manner within different environments in order to explore various outcomes and the potential factors that lead to those outcomes.

The data collection phase of the qualitative case study phase of the study followed Yin’s (2009) three principles of data collection: (a) gathering multiple sources of evidence; (b) creating a case study database; and (c) maintaining a chain of evidence. Yin noted that collection of multiple sources of data is more likely to lead to corroboration of a fact or phenomenon. Information collected during the case studies was maintained in transcripts, documents, and field notes. The inquiry included review of university generated web-based and printed documents focused on mission, strategic planning, financial aid, and diversity and an examination of press articles referencing the institution was made. These data were coded into the case study database and organized into major and minor themes.

I coded the documents and interviews of the case studies sequentially, completing all analysis of one university prior to moving to analysis of the next institution. I
reviewed each transcript for main themes identifying commonalities, trends, and key concepts, and labeled each in the documents. Saldana references Boyatzis (1998), that “a theme ‘at a minimum describes and organizes possible observations or at the maximum interprets aspects of the phenomenon. A theme may be identified at the manifest level (directly observable in the information) or at the latent level (underlying the phenomenon)” (p. vii). Examples of main themes that emerged are “mission central to decision-making” and “board involvement in financial aid planning.” The documents and the transcripts of the interviews were reviewed again in the context of the main themes and minor themes identified. For example, a mission theme of “mission central to decision-making” was “diversity integral to institutional mission.” Main and sub-themes were entered into a database along with quotations from interviewees and relevant passages from printed and web-based material.

Each of the case studies was written separately and then cross-analyzed. I employed two strategies for analyzing the data: the pattern making techniques of explanation building and the development of logic models. As outlined by Yin (2009), employing explanation building, involves developing an initial proposition about motivations and processes for establishing institutional financial aid strategy, comparing the findings from the initial case, revising the original statement/proposition, and comparing details and revisions to subsequent cases (p. 143). Utilizing the logic model technique I traced the multi-layered processes that characterized financial aid strategy development at these four institutions in order to “match empirically observed events to theoretically predicted events” (p. 149). In so doing, I sequentially linked those events and decisions that interacted to form institutional financial aid policy for each case.
individually. To cross-analyze the data, I developed themes and sub-theme tables that identified key findings from each of the cases and identified key trends and processes as well as distinguishing characteristics.

Site visits at each institution included:

- an interview with the President;
- an interview with the Chief Financial Officer (CFO);
- an interview with the Provost;
- an interview with the Chief Advancement Officer;
- interviews with senior members of the enrollment management team.

At three institutions, I met with the Dean of Enrollment. At the fourth institution (University A) that position was open and the Directors of Financial Aid and Admission were jointly managing the department. Directors of Admissions were interviewed at two universities (University A and University D) and Directors of Financial Aid were interviewed at all four of the institutions. At one institution, the Executive Vice President (EVP) who oversaw financial aid, enrollment, and advancement was interviewed as well. For one institution, I engaged in two interviews via video conference as neither the Provost nor Director of Financial Aid was available when I was on-campus.

Titles of those interviewed differed depending on the institution. For example, the Chief Enrollment Manager in one university had the title “Dean of Enrollment.” At another institution the title was Vice President for Enrollment Management. I have used generic titles of Dean of Enrollment, Chief Financial Officer, President, Provost, Chief Advancement Officer, Director of Admissions, Director of Financial Aid, and Executive
Vice President when referencing the interviewees in each of the four case studies to further insure confidentiality.

A pilot study was conducted at my home institution, DePaul University, prior to beginning data collection for the study. This site was chosen for three reasons: convenience, geographic proximity, and complexity of organization. Yin (2009) notes that “convenience, access, and geographic proximity can be the main criteria for selecting a pilot case or cases” (p. 93). In addition to convenience and access, DePaul University’s process for deciding financial aid policy is multi-layered and involves numerous constituencies both internal and external. Using this site as the pilot enabled me to test the interview protocols. Based on the results of the pilot study, I altered and added questions pertaining to financial aid leveraging, the decision-making process around financial aid, and the role of financial aid in recruiting and retaining minority students.

Questionnaires for case study interviews were developed for each set of interviews (i.e. one questionnaire was created for Chief Advancement Officers, another for Chief Enrollment Officers, etc.). See Appendices A -F for interview protocols. All questionnaires included open-ended questions that centered on the university’s mission; institutional commitment to recruitment, retention, and graduation of underrepresented minorities; the role of financial aid in retention and graduation of minority students; and institutional decision-making relative to financial aid. Follow-up questions particular to individual areas were also included. For example, questions about how fundraising was included in decision-making about financial aid at the universities was a question asked of the Chief Advancement Officer; how financial aid leveraging intersects with mission was a question asked of the Chief Enrollment Officer and Financial Aid Officer.
Documents reviewed included the following:

- the university mission statement;
- the university’s most recent strategic plan;
- university website pages devoted to financial aid; mission, the strategic plan, fundraising, diversity, presidential leadership, and retention;
- advancement materials pertaining to mission and scholarship aid;
- relevant institutional data including enrollment, graduation, tuition, financial aid, and diversity information;
- published information about the institutions from such sites as *The Chronicle of Higher Education*, *Inside Higher Education*, and general news outlets.

All interviews were in-depth lasting between 45 and 90 minutes each and averaging an hour each; interviewees were asked to provide information about the financial aid decision-making process, racial and ethnic diversity in the student body, and student retention of minority students as well as offer their opinion about these issues (Yin, 2009). A review of institutional documents and statements, external information, as well as data collected in the quantitative phase of the study provided additional sources of information with which to triangulate the data.

Interviews were audiotaped, with the consent of the participants, to ensure accuracy. GMR transcription services transcribed notes from each of the interviews. Information from the transcripts and information deemed relevant from the internal and external documents were coded into a database. Relevant notes taken after each interview
were also coded into the database. The database as well as notes and journals were kept on a secure server at DePaul University that is password protected. The database was utilized for analysis for this dissertation and is available for later access to researchers. The dissertation has cited specific documents, interviews, and notes accurately thus allowing the reader to access information readily so as to assure that a chain of evidence is maintained. All the participants signed letter waivers approved by the University of Pennsylvania’s Institutional Review Board (IRB). Confidentiality of participants was assured in the study. The institutions involved are described by their characteristics (e.g., urban, rural, religiously-affiliated, etc.) and participants have been identified by their role title (i.e., Dean of Enrollment). None of the participants requested to see a transcript of the interview prior to the publication of the study.

Yin (2009) affords four strategies to be employed in case study data analysis. This study utilizes “relying on the theoretical proposition” (p. 130) that the decision-making around financial aid policy that influences increased graduation rates for underrepresented minority students is intentional and the result of a balance of institutional priorities, framed, at least in part by mission, culture, and leadership. Exploring how those decisions are made—who is involved, what their perspectives are, what are the data that are considered and how mission, culture, and leadership influence decision-making—has been the objective of the case studies.
Trustworthiness

I bring to this study a background as an administrator in institutions of higher education that have employed financial aid strategy to promote access for low-income and diverse populations. I believe that institutions of higher education have an obligation to reach out to traditionally underrepresented student populations, and had hoped to find that those participating in the study were employing their institutional financial aid resources in such a manner. Given my background and expectations, I employed procedures to minimize bias, primarily “rigorous and systematic data collection procedures” including “cross-checking and cross-validating sources during fieldwork” (Patton, 2002, p. 545). To guarantee trustworthiness, it is critical to develop a coherent process as well as unambiguous operating procedures to ensure reliability and construct validity (Yin, 2009). The process that I employed involved gathering multiple sources of evidence through interviews, internal and external document retrieval, and creating a comprehensive case study database; and maintaining a transparent and complete chain of evidence. The extensive analysis utilizing pattern-making techniques of explanation building and development of logic models with each case as well as cross-analysis of findings from each case was a further safeguard against bias.

Limitations

This phase of the study was dependent on a publicly available database and a proprietary database that include self-reported information. It is recognized that there is potential for error in the data exist. The data were also limited in that only about half of
the private, nonprofit four-year colleges and universities in the United States provided financial aid data. Graduation rates are graduation rates reported in IPEDS data and, therefore, only reflect the graduation rates of students who began as first time, full-time freshman. They do not reflect the graduation rate of students who transfer into an institution, those who transfer to another institution, or students who start part-time.

Also the data reflect the graduation rates of students who began college between AY 2002 and AY 2004, but the financial aid data being reviewed is data from the AY 2008-2009 entering class. Financial aid policy may have shifted in the interim period, or, more likely, given information gleaned in the qualitative portion of this research, changed following the recession of 2008-09.

Despite a national focus on the use of institutional aid in support of low-income and underrepresented student populations and a subsequent expectation that interviewees would not be open given that focus, I found that all of the participants were willing to discuss the challenge of meeting student need and increasing retention and graduation rates of all students, particularly Latino and African American students. However, it was also clear that those interviewed agreed to be candid due to the promise of confidentiality to the participants.

The case study analysis of this research project is limited by its scope and specificity as institutions with similar institutional characteristics participated, and only four studies were conducted. It is possible that undertaking a similar analysis at colleges and universities with different institutional characteristics or with a larger number of
institutions would result in findings different from this study. However, generalizability to a broader population is not a goal of the qualitative analysis.
CHAPTER 4

FINANCIAL AID AND STUDENT GRADUATION RATES

Path analysis was utilized to address the first two research questions and their subparts of this study. It specifically was employed to explore (a) the direct relationship between the proportion of need met at an institutional level and overall and underrepresented minority student graduation rates taking into account other relevant institutional-level variables including size, selectivity, student body composition, and endowment per FTE and (b) to examine the total effects of the variables on graduation rate, directly and indirectly through need met. Path analysis undertaken as a part of this project also explored (a) the relationship between the proportion of total institutional aid allocated to needy students and overall and Latino and African American graduation rates controlling for size, selectivity, student body composition, and endowment; and (b) the total effects of the variables on graduation rate, directly and indirectly through the percentage of aid allocated to needy students.

Percentage of Need Met and Graduation Rates

Figures 3, 4, and 5 and Tables 9, 10, and 11, in each of the three analyses — of overall, Latino, and African American graduation rates — after controlling for other variables, three variables have a statistically significant direct relationship to the percentage of need met:

Endowment has the strongest positive direct relationship to need met, indicated by standardized coefficients of .46 for overall graduation rate analysis (Figure 3); .44 for African American graduation rate analysis (Figure 4); and .43 for Latino graduation rate analysis (Figure 5). For every one standard deviation increase in endowment per FTE
(1.6 of a log of 10): the percentage of need met increased by the coefficient—.46—X 14.96 (standard deviation of need met/overall graduation rate analysis) or 6.9 points; .44 X 14.87 (the standard deviation of need met/African American graduation rate analysis) or 6.3 points; and .43 X 14.87 (the standard deviation of need met/Latino graduation rate analysis) or 6.4 points.

SAT scores have a lesser positive direct relationship to need met: .24 in the Latino graduation rate analysis (Figure 5) and .23 in the overall (Figure 3) and African American (Figure 4) graduation rate analyses. For every one standard deviation increase in SAT scores—140 points in the overall and African American graduation analysis and 138 points in the Latino graduation analysis—the percentage of need met increased by .24 X 14.87 or 3.6 points in the Latino graduation analysis; .23 X 14.96 or 3.3 points in the overall graduation analysis and .23 X 14.87 or 3.3 point in the African American graduation rate analysis.

Enrollment has a negative relationship to need met, although the relationship is small in magnitude— (-.08) in overall graduation analysis (Figure 3) and Latino graduations analyses (Figure 5) and (-.09) in African American graduation analysis. Institutions with higher SAT scores and larger endowments will meet a higher level of student need, but as enrollment increases the percent of need met declines. Neither admit rate nor the percentage of underrepresented minority students are related to the overall graduation rate or the graduation rates of African Americans and Latinos after controlling for other variables.
Predictors of Graduation Rates and the Percentage of Need Met

Figures 3, 4, and 5 and Tables 9, 10, and 11 illustrate the path analysis for need met and overall, African American and Latino graduation rates. The percentage of need met was unrelated to overall graduation rates or to the graduation rates of Latino or African American students in the population examined when controlling for other variables in the analysis. Because percentage of need met is unrelated to graduation rate, the analysis reveals no statistically significant indirect effects of the exogenous variables on graduation rates.

After controlling for other variables, the analyses show that three variables have a statistically significant positive direct relationship to overall, Latino and African American graduation rates: SAT score, endowment, and enrollment. Average incoming SAT score has the strongest positive direct relationship of the variables to graduation, with the standardized coefficients is .52 in the overall graduation analysis (Figure 3); .38 in the Latino graduation analysis (Figure 5); and .32 in the African American graduation rate analysis (Figure 4). For every one standard deviation increase in SAT scores—140 points in the overall and African American graduation analysis and 138 points in the Latino graduation analysis—graduation rates increased by .52 X 16.9 (standard deviation/overall graduation rate) or 9 points for the overall graduation rate; .38 X 27.6 (standard deviation/Latino graduation rate) or 10.5 points for the Latino graduation rate; and .32 X 25.8 (standard deviation/African American graduation rate) or 8.3 points for the African American graduation rate.

Graduation rates also increased as endowment per FTE increased: .19 (overall graduation rates – Figure 3) and .22 (African American graduation rates -Figure 4). For
every one standard deviation increase in endowment per FTE (1.6 of a log of 10):
graduation rates increased by the coefficient.19 X 16.9 (standard deviation/overall
graduation rate) or 3 points for overall graduation rates and .22 X 25.8 (standard
deviation/African American graduation rate) or 6 points for African American graduation
rate.

Graduation rates increased as enrollment increased as well: .22 (overall
graduation rates – Figure 3) and .14 (African American and Latino graduation rates –
Figures 4 and 5). For every one standard deviation increase in enrollment (.9 of a log of
7.8) graduation rates increased by the coefficient.22 X 16.9 (standard deviation/overall
graduation rate) or 4 points for overall graduation rates; .14 X 25.8 (standard
deviation/African American graduation rate) or 4 points for African American graduation
rate; and .14 X 27.6 (standard deviation/Latino graduation rate) or 4 points for Latino
graduation rates.

Two other variables have statistically significant negative direct relationships to
graduation rates. Admit rate has a negative direct relationship to African American
graduation rate: (-.12); and the percentage of underrepresented minority students has a
negative direct relationship to overall graduation rate: (-20).
Figure 3. Path Analysis of the Predictors of Overall Graduation Rates and Percentage of Need Met at Private, Nonprofit, Four-Year Colleges/Universities

Source: Analysis of IPEDS and Petersons, Inc. 2009-10 Data

Table 11 Predictors of Overall Graduation Rates at Private, Nonprofit, Four-Year Colleges/Universities (Related to % of Need Met)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Direct Effect</th>
<th>Indirect Effect</th>
<th>Total Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of Need Met</td>
<td>0.04</td>
<td></td>
<td>0.04</td>
</tr>
<tr>
<td>Admit Rate</td>
<td>-0.03</td>
<td>0.00</td>
<td>-0.02</td>
</tr>
<tr>
<td>Log % Underrepresented Minority</td>
<td>-0.20 ***</td>
<td>0.00</td>
<td>-0.20 ***</td>
</tr>
<tr>
<td>SAT</td>
<td>0.53 ***</td>
<td>0.01</td>
<td>0.54 ***</td>
</tr>
<tr>
<td>Log Endowment per FTE</td>
<td>0.19 ***</td>
<td>0.02</td>
<td>0.21 ***</td>
</tr>
<tr>
<td>Log Total Enrollment</td>
<td>0.22 ***</td>
<td>0.00</td>
<td>0.22 ***</td>
</tr>
<tr>
<td>R-Squared - Graduation Rate</td>
<td>0.72</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R-Squared - % of Need Met</td>
<td>0.39</td>
<td></td>
<td></td>
</tr>
<tr>
<td>n = 554</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Analysis of IPEDS and Petersons, Inc. 2009-10 Data

* indicates a p value ≤ 0.05; ** indicates a p value ≤ 0.01; *** indicates a p value ≤ 0.001
# = error terms
Figure 4. Path Analysis of the Predictors of African American Graduation Rate and Percentage of Need Met at Private, Nonprofit, Four-Year Colleges/Universities

Source: Analysis of IPEDS and Petersons, Inc. 2009-10 Data

Table 12. Predictors of African American Graduation Rate at Private, Nonprofit, Four-Year Colleges/Universities (Related to % of Need Met)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Direct Effect</th>
<th>Indirect Effect</th>
<th>Total Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of Need Met</td>
<td>0.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Admit Rate</td>
<td>-0.12 **</td>
<td>0.00</td>
<td>-0.12 **</td>
</tr>
<tr>
<td>Log % Underrepresented Minority</td>
<td>0.03</td>
<td>0.00</td>
<td>0.03</td>
</tr>
<tr>
<td>SAT</td>
<td>0.32 ***</td>
<td>0.002</td>
<td>0.33 ***</td>
</tr>
<tr>
<td>Log Endowment per FTE</td>
<td>0.22 ***</td>
<td>0.005</td>
<td>0.23 ***</td>
</tr>
<tr>
<td>Log Total Enrollment</td>
<td>0.14 ***</td>
<td>0.00</td>
<td>0.14 ***</td>
</tr>
<tr>
<td>R-Squared- African American Grad Rate</td>
<td>0.40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R-Squared- % of Need Met</td>
<td>0.38</td>
<td></td>
<td></td>
</tr>
<tr>
<td>n = 543</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Analysis of IPEDS and Petersons, Inc. 2009-10 Data

* indicates a p value ≤ 0.05; ** indicates a p value ≤ 0.01; *** indicates a p value ≤ 0.001
# = error terms
Figure 5. Path Analysis of the Predictors of Latino Graduation Rate and Percentage of Need Met at Private, Nonprofit, Four-Year Colleges/Universities

Source: Analysis of IPEDS and Petersons, Inc. 2009-10 Data

Table 13. Predictors of Latino Graduation Rate at Private, Nonprofit Four-Year Colleges/Universities (Related to % of Need Met)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Direct Effect</th>
<th>Indirect Effect</th>
<th>Total Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of Need Met</td>
<td>0.06</td>
<td></td>
<td>0.06</td>
</tr>
<tr>
<td>Admit Rate</td>
<td>-0.05</td>
<td>0.00</td>
<td>-0.05</td>
</tr>
<tr>
<td>Log % Underrepresented Minorities</td>
<td>0.02</td>
<td>0.00</td>
<td>0.01</td>
</tr>
<tr>
<td>SAT</td>
<td>0.38 ***</td>
<td>0.01</td>
<td>0.39 ***</td>
</tr>
<tr>
<td>Log Endowment per FTE</td>
<td>0.11</td>
<td>0.03</td>
<td>0.13 *</td>
</tr>
<tr>
<td>Log Total Enrollment</td>
<td>0.14 ***</td>
<td>-0.01</td>
<td>0.13 ***</td>
</tr>
<tr>
<td>R-Squared - Latino Grad Rate</td>
<td>0.33</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R-Squared - % of Need Met</td>
<td>0.39</td>
<td></td>
<td></td>
</tr>
<tr>
<td>n = 534</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Analysis of IPEDS and Petersons, Inc. 2009-10 Data

* indicates a p value ≤ 0.05; ** indicates a p value ≤ 0.01; *** indicates a p value ≤ 0.001
# = error terms
Percentage of Aid Awarded to Needy Students and Graduation Rates

Figures 6, 7, and 8 and Tables 14, 15, and 16 illustrate the path analysis for overall, African American and Latino graduation rates and percentage of aid awarded to needy students. After controlling for other variables, path analysis reveals that only one variable is related to the percentage of aid awarded to needy students in all three analyses: admit rate. As the admit rate declines, and the institution’s selectivity rises, the percentage of aid awarded to needy students increases (standardized coefficients equal (-.16) in the overall and African American graduation rate analyses and (-.06) in the Latino graduation rate analysis). For every one standard deviation decrease in admit rate—(17 points), the percentage of aid awarded to needy students increased by: (-.16) X (-12.6) (standard deviation of aid to needy students/overall) or 2 points in the overall student graduation analysis; (-.16) X (-12.5) (standard deviation of aid to needy students/African American) or 2 points in the African American graduation analysis; and (-.06) X (-12) (standard deviation of aid to needy students/Latino) or 1 point in the Latino student graduation rate analysis. SAT is also negatively related to the percentage of aid awarded to needy students in the overall graduation analysis (-.17) and in the Latino graduation rate analysis (-.22) as indicated in Figures 6 and 8. As the SAT score rises, the percentage of aid awarded to needy students declined in these two analyses.

Predictors of Graduation Rates and the Percentage of Aid to Needy Students

After controlling for other variables, the path analysis shows that the percentage of aid to needy students is unrelated to the overall graduation rate and to graduation rates of African American and Latino students. Because the percentage of institutional aid allocated to needy students is unrelated to graduation rates, there are no indirect effects of
any exogenous variable on graduation rates overall or for African American or Latino graduation rates. Four variables have a statistically significant direct relationship to graduation rates: SAT score, endowment, enrollment and the percentage of underrepresented minority students. As SAT score, endowment and enrollment rise, so do overall graduation rates.

SAT score has the strongest positive direct relationship of the variables to graduation rates as indicated by standardized coefficients of .48 (overall graduation rate path analysis): .39 (Latino graduation rate path analysis); and .27 (African American graduation rate path analysis). Enrollment is also positively related to graduation rates as noted by standardized coefficients of .26 (overall graduation path analysis); .16 (African American graduation path analysis) and .14 (Latino graduation path analysis). Endowment has a statistically significant direct relationship to overall and African American graduation rate with a standardized coefficient of .24. As the percentage of underrepresented minority students rises the overall graduation rates declines (-.21). Admit rate is negatively related to African American graduation rate: (-.14) after controlling for other variables.
Figure 6. Path Analysis of the Predictors of Overall Graduation Rate and Percentage of Aid to Needy Students at Private, Nonprofit, Four-year Colleges/Universities

Source: Analysis of IPEDS and Petersons, Inc. 2009-10 Data

Table 14. Predictors of Overall Graduation Rate at Private, Nonprofit, Four-Year Colleges/Universities (Related to % of Aid to Needy Students)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Direct Effect</th>
<th>Indirect Effect</th>
<th>Total Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of Aid to Needy Students</td>
<td>0.02</td>
<td>0.02</td>
<td>0.02</td>
</tr>
<tr>
<td>Admit Rate</td>
<td>-0.03</td>
<td>0.00</td>
<td>-0.03</td>
</tr>
<tr>
<td>Log % Underrepresented Minorities</td>
<td>-0.21 ***</td>
<td>0.00</td>
<td>-0.21 ***</td>
</tr>
<tr>
<td>SAT</td>
<td>0.48 ***</td>
<td>-0.003</td>
<td>0.47 ***</td>
</tr>
<tr>
<td>Log Endowment per FTE</td>
<td>0.24 ***</td>
<td>0.00</td>
<td>0.24 ***</td>
</tr>
<tr>
<td>Log Total Enrollment</td>
<td>0.26 ***</td>
<td>0.00</td>
<td>0.26 ***</td>
</tr>
<tr>
<td>R-Squared- Graduation Rate</td>
<td>0.68</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R-Squared-% of Aid to Needy Students</td>
<td>0.03</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

n = 448

Source: Analysis of IPEDS and Petersons, Inc. 2009-10 Data

* indicates a p value ≤ 0.05; ** indicates a p value ≤ 0.01; *** indicates a p value ≤ 0.001
# = error terms
Figure 7. Path Analysis of the Predictors of African American Graduation Rate and Percentage of Aid to Needy Students at Private, Nonprofit, Four-Year Colleges/Universities

Source: Analysis of IPEDS and Petersons, Inc. 2009-10 Data

Table 15. Predictors of African American Grad. Rate at Private, Nonprofit, Four-Year Colleges/Universities (Related to % of Aid to Needy Students)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Direct Effect</th>
<th>Indirect Effect</th>
<th>Total Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of Aid to Needy Students</td>
<td>0.02</td>
<td>0.00</td>
<td>0.02</td>
</tr>
<tr>
<td>Admit Rate</td>
<td>-0.14***</td>
<td>0.00</td>
<td>-0.14***</td>
</tr>
<tr>
<td>Log % Underrepresented Minorities</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>SAT</td>
<td>0.27***</td>
<td>0.00</td>
<td>0.27***</td>
</tr>
<tr>
<td>Log Endowment per FTE</td>
<td>0.24***</td>
<td>0.00</td>
<td>0.24***</td>
</tr>
<tr>
<td>Log Total Enrollment</td>
<td>0.16***</td>
<td>0.00</td>
<td>0.16***</td>
</tr>
<tr>
<td>R-Squared - African American Graduation Rate</td>
<td>0.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R-Squared - % of Aid to Needy Students</td>
<td>0.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td>n = 448</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Analysis of IPEDS and Petersons, Inc. 2009-10 Data

* indicates a p value < 0.05; ** indicates a p value < 0.01; *** indicates a p value < 0.001
# = error terms
Figure 8. Path Analysis of the Predictors of Latino Graduation Rate and thePercentage of Aid to Needy Students at Private, Nonprofit, Four-Year Colleges/Universities

Source: Analysis of IPEDS and Peterson's, Inc. 2009-10 Data

Table 16. Predictors of Latino Graduation Rate at Private, Nonprofit, Four-Year Colleges/Universities (Related to % of Aid to Needy Students)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Direct Effect</th>
<th>Indirect Effect</th>
<th>Total Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of Aid to Needy Students</td>
<td>0.02</td>
<td>0.00</td>
<td>0.02</td>
</tr>
<tr>
<td>Admit Rate</td>
<td>-0.06</td>
<td>0.00</td>
<td>-0.06</td>
</tr>
<tr>
<td>Log % Underrepresented Minorities</td>
<td>0.03</td>
<td>0.00</td>
<td>0.03</td>
</tr>
<tr>
<td>SAT</td>
<td>0.39 ***</td>
<td>0.00</td>
<td>0.39 ***</td>
</tr>
<tr>
<td>Log Endowment per FTE</td>
<td>0.10</td>
<td>0.00</td>
<td>0.10</td>
</tr>
<tr>
<td>Log Total Enrollment</td>
<td>0.14 ***</td>
<td>0.00</td>
<td>0.14 ***</td>
</tr>
<tr>
<td>R-Squared - Latino Grad Rate</td>
<td>0.28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R-Squared - % of Aid to Needy Students</td>
<td>0.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td>n = 442</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Analysis of IPEDS and Peterson's, Inc. 2009-10 Data

* indicates a p value ≤ 0.05; ** indicates a p value ≤ 0.01; *** indicates a p value ≤ 0.001
# = error terms
Summary

After controlling for admit rate, SAT score, the percentage of underrepresented minorities, total enrollment, and endowment per FTE the analyses indicate that wealthier institutions and colleges and universities with higher incoming student SAT scores meet need at a higher level, while institutions that enroll more students meet a lower percentage of need. Too, more selective institutions—those that have a lower admit rate—provide more institutional aid to needy students. Nevertheless, after controlling for other variables, the percentage of need met is unrelated to overall, African American or Latino graduation rates. The percentage of institutional aid designated to support needy students was also unrelated to overall, African American and Latino student graduation rates after controlling for admit rate, SAT score, the percentage of underrepresented minorities, total enrollment, and endowment per FTE. Enrollment, endowment, and SAT scores were strong predictors of success when looking at overall, African American, and Latino graduation rates.

How institutional financial aid is utilized may be a function of the institution’s business plan, mission, or a combination of both. The second part of this study is required to determine how institutions make decisions regarding financial aid and its relationship to mission and other priorities. The four case studies that follow explore these relationships from the perspective of institutions that allocate financial aid in different ways and graduate underrepresented minority students at different levels. Table 17 provides an overview of the key statistics for each of the universities participating in the case study and Figure 9 illustrates where each institution resides relative to African
American graduation rate and the percentage of need met among other medium-size colleges and universities in the population examined.

Table 17. Descriptive Statistics: Case Study Institutions

<table>
<thead>
<tr>
<th></th>
<th>University A</th>
<th>University B</th>
<th>University C</th>
<th>University D</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Percentage of Need Met</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Source: Common Data Set</td>
<td>75%</td>
<td>65%</td>
<td>97%</td>
<td>77%</td>
</tr>
<tr>
<td><strong>Percentage of Aid to Needy Students</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Source: Common Data Set</td>
<td>88.2%</td>
<td>90%</td>
<td>97%</td>
<td>Didn’t report</td>
</tr>
<tr>
<td><strong>Graduation Rates</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td>57%</td>
<td>70%</td>
<td>83%</td>
<td>55%</td>
</tr>
<tr>
<td>African American</td>
<td>36%</td>
<td>61%</td>
<td>88%</td>
<td>33%</td>
</tr>
<tr>
<td>Latino</td>
<td>33%</td>
<td>70%</td>
<td>87%</td>
<td>44%</td>
</tr>
<tr>
<td>Source: IPEDS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>% Latino Students</strong></td>
<td>2%</td>
<td>12%</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>% African American Students</td>
<td>11%</td>
<td>5%</td>
<td>7%</td>
<td>5%</td>
</tr>
<tr>
<td><strong>Endowment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Source: IPEDS</td>
<td>$11,000 per FTE</td>
<td>$24,500 per FTE</td>
<td>$20,000 per FTE</td>
<td>$8800 per FTE</td>
</tr>
<tr>
<td><strong>Incoming SAT</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Source: IPEDS</td>
<td>1090</td>
<td>1250</td>
<td>1280</td>
<td>1220</td>
</tr>
<tr>
<td><strong>Total Enrollment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Source: IPEDS</td>
<td>6601</td>
<td>8750</td>
<td>6080</td>
<td>5611</td>
</tr>
<tr>
<td><strong>Total Budget</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Source: IPEDS</td>
<td>$250 million</td>
<td>$330 million</td>
<td>$250 million</td>
<td>$80 million</td>
</tr>
</tbody>
</table>
Figure 9. Placement of Case Study Universities: African American Graduation Rates and Percentage of Need Met
University A was chosen for participation in this research project because it graduated Latino and African American students at a rate lower than the mean of the colleges and universities being examined: 33% v. 49% (Latino students) and 36% v. 45% (African American students). University A met need at a slightly lower percentage (75%) than the mean (77%). Established in 1821 as a preparatory school for boys, University A has evolved from an all-male military academy to include a co-educational component for civilian men and women that, in the early 1970s, merged into one institution. In the mid-1970s, the institution acquired a law school. In the late 1980s, University A opened a third campus and in 2004 a fourth—both in locales apart from the main campus. A comprehensive doctorate-granting university, the institution presently serves approximately 7000 students awarding associate, bachelor, masters, and doctoral degrees. Under the present administration—which assumed leadership in 2002—the university has received national recognition for its civic engagement and public service programs.

Establishing Mission

The current President assumed leadership of University A with a pledge to establish a institution dedicated to civic engagement and diversity, and with a commitment to create an environment in which decisions were made strategically and inclusively. He joined an organization that had evolved over time through acquisition of other institutions and through academic program growth that was characterized as “entrepreneurial” and driven by individual faculty interest. In seeking to shape an institution driven by planning and comprehensive involvement of faculty and staff, the
President shifted the organization from one with “no evidence of a strategic plan” where the environment was “hierarchical” and decisions about institutional direction “were made at the top.” His first challenge was to help the organization structure itself around common image, goals, and mission. The President described the challenging of establishing a unified mission:

[University A] used to be a military school that became civilian. It merged with a law school in [State A] that was a start-up and needed the university to give it background. Many of our graduate programs—either the faculty decided on their own to leave other schools … or they were asked to leave. They had no longer fit the mission of other institutions and somehow they found a home at [University A]. We have schools that have been here, such as engineering, that have 150-year celebration coming up. Tomorrow, we’re going to approve a new school…So it’s an odd amalgam of pieces. (President)

The President of University A developed a planning process soon after arriving on campus that was intended to establish an institutional mission and to provide direction for issues around enrollment, academic programming, and finances. With this process, the administration sought to expand involvement and inclusion in decision-making and particularly emphasized faculty involvement. Every member of the leadership team indicated that decisions are currently made through consensus building based on shared values and beliefs formulated through the planning process and emphasized at various levels of the organization. The strategic plan under which the institution currently operates was inaugurated in 2004 after a two-year long planning process and is set to expire in 2015. Involvement of faculty leaders has played a role in both the development of the university’s plan as well as on-going implementation and revision of goals and objectives.

University A’s mission statement articulates the institution’s commitment to civic engagement and diversity, and the strategic plan’s goals lead off with a pledge to the
creation of a diverse university environment that prepares students to function in a pluralistic world. Other goals include integrating student-centered learning that merges academic excellence with curricula focused on societal needs; expanding and diversifying financial resources; optimizing enrollment; raising the profile of the institution; responding to the needs of the educational community in which the university resides and fostering civic and professional leadership among faculty and staff; and becoming “an employer of first choice” for faculty and staff. Although the strategic plan outlines multiple goals, interviewees made consistent reference to three goals as central to the mission—creating a diverse university community; focusing academic, co-curricular, and professional programs and activity on civic engagement; and increasing salaries to competitive levels to attract and retain strong faculty and staff. The President’s leadership in establishing a coherent mission and defining how the university will be influenced by its mission has shifted how University A makes and implements decisions.

Each interviewee commented that mission is widely recognized in the institution and integrated into planning, budgeting, enrollment and financial aid processes. However, the President, the Provost, and the CFO noted that the current acceptance of the mission and direction of the university’s strategic plan to embrace diversity and community outreach as key tenets was not the immediate reaction of the university community when initially engaged in the issues:

To give you an example of how we dealt with our serious issues of violence and a distressed school district—we're in the worst school district in [State A] for performance and it has been for 20 straight years. [We’re in] the most violent city in [State A]... I came into this very room on my very first day on the job July 1st of 2002 and here were two cardboard architectural drawings of how we were going to enclose our campus with eight-foot high wrought iron fences—not just along the perimeter as decorative or to keep people out below surface windows. But we were going to gate ourselves in ....I said from that moment on, "We're not
going to become closed. We won't be a citadel." That led to a great debate in conversation about what the mission of [University A] is. It took us about a year and a half to come to a conclusion on that ... That was a painful and important process that then led to a strategic plan that has 13 goals.

Although there was initial resistance to the President’s key goals of diversity and civic engagement, this has given way—over time—to general acceptance, according to the Provost. Interviewees credited the strategic plan for defining the university’s mission, positioning the institution nationally, and generating increased enrollment, and gave the President credit for managing a planning process that resulted in broad-based support on campus.

The university’s website outlines some of the accomplishments attributed to the establishment of a new mission and implementation of the strategic plan—accomplishments that rank the institution in the top 25 in the U.S. by the 2011 Newsweek/The Daily Beast for schools that engage in service; classify the university as a “community engagement institution” by the Carnegie Foundation for the Advancement of Teaching; and name the institution to the President’s Higher Education Community Service Honor Roll for multiple years between 2006 and 2010. Also, University A has been identified, along with 16 other colleges and universities, as an institution that has utilized strategic planning to create a successful university in a recent Association of Governing Boards (AGB) publication: Leading change: How boards and presidents build exceptional academic institutions.

Integrating Mission and Planning

It is evident from the interviews conducted and the documentation reviewed that University A’s planning process has resulted in the establishment of a clear direction for the institution and done so in a manner that has been inclusive of the university
community. It is also apparent that the central tenets of the university’s mission—
developing an academic environment connected to civic responsibility and creating a
diverse community reflective of a pluralistic society—have been generally adopted by the
institution’s various populations. In particular, interviewees stated that the institutional
mission continues to be central to decision-making around issues of academic planning,
the composition of the student body, diversity of the faculty and staff, and outreach to
community.

All members of the leadership team interviewed discussed the commitment to
diversity as integral to the mission of University A—describing the process that the
university undertook to increase diversity as multi-pronged. The institution sought to
reflect the environment in which it is situated from a perspective of race and ethnicity and
committed to increasing diversity in the faculty and staff as well as the student body:

Certainly the community that we’re in is very diverse, obviously. But the
university did not reflect that diversity in faculty and staff and really not in the
student body either. So we were very adamant, if you will that we needed to
reflect the diversity of the region. We were very thoughtful and deliberate in
making sure that was one of the most important priorities. I mean we have
thirteen goals in the strategic plan. Of course, they’re all important. But for us I
think diversity is one of the most important ones (Chief Advancement Officer).

The President reported that since the beginning of the strategic plan in 2004, the
number of minority professional staff has increased from 2% to 9% and the percentage of
minority faculty has risen from seven to 15%. Underrepresented minority student
enrollment has increased from 10% in 2004-05 to 13% in 2009-10 according to IPEDS
data (NCES, 2012). Institutional initiatives, including establishing an Office of
Multicultural Affairs, assigning an admissions staff person specifically assigned to recruit
minority students, creating new scholarship programs targeted to encourage high school
students from the diverse community in which the university resides and initiating an education program to prepare faculty to deal with diversity issues in the classroom, were established as part of the goal to increase enrollment and retention of students of color.

University A has a historic commitment to low-income students (as defined by Pell eligibility). According to the President, many of the students of color the institution has recruited are Pell-eligible; however, the university also has a large number of White students who qualify for Pell grants. He noted that the population of Pell grant recipients has increased in recent years to approximately 38% of the undergraduate student body.

We also have come to a conclusion reaffirmed over the years—even though you wouldn't specifically get it out of our mission statement—it's in between the lines—that we've had a long history of first generation Pell grant recipients and low-income families. We didn't want to walk away from that commitment—in fact we've increased the percentage of our Pell grant recipients (President).

The multiple goals of enhancing faculty and staff salaries, increasing diversity, supporting low-income students, and establishing the institution as a leader in civic engagement and community outreach have been advanced within a difficult economy following the recession of 2009. University A is tuition dependent with approximately 90% of its operating budget based on the revenue stream emanating from tuition and fees. Enrollment drives the institution’s business plan according to the CFO. The university depends, in part, on “high margin” programs such as graduate professional programs in which students pay full tuition and receive little or no financial aid to help fund programs that require institutional support in the form of financial aid, according to the CFO. In the undergraduate program, virtually all of the enrolled students receive some institutional aid. The CFO stated that the number of undergraduate students at University A who were capable of paying the total tuition price of $41,000 “could be counted on one hand.”
Managing enrollment and financial aid within the context of mission and the challenges of the economy has been a critical discussion in budget and strategic planning meetings at University A according to all interviewees.

Mission and Financial Aid Policy

The university was intentional about the commitment to diversity and incorporated the goal of a diverse community into planning, budgeting and enrollment/financial aid policy, according to the Provost and the CFO. However, this commitment is presently being tested by the financial realities of the university, primarily its considerable dependence on tuition as the main source of revenue and the potential need to shift the composition of the student body to ensure long-term viability. Financial aid policy that has been focused on recruiting and retaining a socio-economic and racially diverse student population is being reconsidered in light of other institutional needs.

Leadership interviewed spoke specifically about the clear challenge to manage the institution’s mission alongside the demands of “bringing in a class.” The trend in allocation of financial aid resources is toward enrolling and aiding more meritorious students, as defined by their academic records, and students with the ability to pay; (b) the current economic environment in the region and financial aid leveraging of the institution has shifted how enrollment, particularly enrollment of poor students, is managed; and (c) there is concern about long-term sustainability of the current model and apprehension about potential declining financial support from state and federal sources.

At University A there is a keen focus on achieving enrollment goals, widespread understanding of the import of tuition revenue and financial aid management among multiple constituencies and integration of enrollment and financial aid objectives with
institutional planning and mission goals. Interviewees reported that the President and
senior leadership engaged faculty and staff in discussion about enrollment and financial
aid at periodic meetings as well as at an annual Planning Day, and that multiple
constituencies, including faculty, have knowledge of the role of enrollment and financial
aid relative to the operating budget and institutional mission through these open sessions
and the work of the budgeting committee;

[The President] will go through [enrollment and financial aid data] at a very high
level at town halls. We have about three town halls per semester roughly. Also,
there are probably at least two or three faculty meetings per semester that [the
President] always talks at. …The same with the Provost. So we talk an awful lot
about net tuition revenue, especially with the group that I meet with, the Budget
and Planning Assessment Group. They can see where the discount rate’s going.
They can see what the effect is on a 1% increase [in the discount rate] in the
overall freshman rate—it’s about a quarter of a million dollars. So that’s a quarter
of a million dollars we don’t have for salaries and operations, and all the other
things people want in their budget (CFO).

Financial aid remains a top budget priority in an environment in which non-
personnel operating budgets have declined 12% in the last four-years in order to support
increasing financial aid costs and faculty and staff salaries. The Chief Advancement
Officer was one of a number of interviewees who reported on the wide-spread support for
financial aid as the top budgetary expenditure after salaries: “I think in the past five years,
every single year the number one item that they come out with [from the planning
process] is a consensus for financial aid for students.” She, along with the CFO, and Dean
of Enrollment, indicated that the institutional commitment to increase financial aid
funding is both the result of a commitment to meet increasing student need and a
necessity to recruit a class of students who are receiving similar or more competitive aid
packages from competitor institutions. However, as each of the interviewees noted, the
university’s limited resources effects the level of support the institution can provide to students.

Enrolling a class that is of sufficient size to provide resources to operate is the principal objective of University A’s enrollment process. Approximately 92% of the university’s undergraduate student population receives financial aid, and, as indicated previously, almost 40% are eligible for Pell grants. Presently, the university’s approach to enrollment and financial aid seeks to increase the number of students capable of bearing more of the cost of attending University A. The President analyzed the reality as follows, “We need the higher income families or we’re not going to be able to keep the model going.” University A is need-blind in its admissions decisions, but works to attract more affluent students by targeting markets considered more affluent and providing some merit scholarship funding for high achieving students of means.

University A uses financial aid leveraging to fulfill its enrollment and revenue projections. As indicated in Chapter 1, the financial aid leveraging process segments accepted students into a matrix that overlays the level of academic preparation with the level of need. Financial aid is assigned based on the students’ place in the matrix with an eye to achieving a high enrollment rate particularly for those students that the institution most desires.

Although some of the aid allocated at University A comes from endowed scholarship sources, a great majority is discounted tuition, according to the Director of Financial aid. The institution began employing financial aid leveraging in the 1999-2000 school year, per the CFO, who credits the practice with an increase in enrollment and revenue. As net tuition has increased, so too, has the discount rate of tuition at University
A—presently at 40% overall and 51% for incoming first year students. The institution, like many institutions of higher education (Quirk, 2005), has moved from using financial aid primarily to meet need to using financial aid to recruit a class. The Chief Financial Officer described the process:

We set what we would like to do for merit scholarships first. We will then …look at certain scholarships that we also offer to new students in our incoming class. We have an honor scholarship program. We’ll look at how many fall tuition scholarships we want to offer. We also look at our President Corps Service Program, which is tied to students coming in who have demonstrated a great deal of interest and commitment to community service.

At that point in time, we also make a determination of what we're going to do as far as need-based funding from the university. It's all tied into a matrix and we use certain parameters for both need and for academic criteria. And we'll establish need bands that we're going to meet within those ranges.

Although there is a formal process, integrated into the budget process, that determines percentage of the institution’s budget devoted to financial aid, the initial financial aid leveraging matrix is developed by the CFO and senior members of the enrollment management office in concert with an outside consultant. This group articulates general objectives for the class in terms of size, SAT levels, and types of students who were retained in prior years. Scenarios are developed and sent to the executive team who discuss them in the context of budget needs and projections. At this point in the process, the objective is to create a class that will fund the institution’s financial requirements:

Roughly 80% of our revenue comes from tuition. If you add in room and board—which really comes from enrollment, too—we're in the low-90s. So getting a class becomes the priority. We're not at the point where we can build profile . . . we're trying to get a class, period. Do we tweak a little bit with some of the extra scholarships—whether it be [for students who are] service-minded? Yes. . . . Outside our matrix, there are probably eight or nine different places where there's actually a little more money, but we’re talking $1,000-$2,000 . . . It [financial aid
practice] has certainly moved more toward merit than need…We hate to get too far away from that [need-based aid], especially when we look at the kinds of students and families who come to [University A]. (CFO)

The Director of Financial Aid and Director of Admissions stated that race was not explicitly a factor in University A’s financial aid leveraging model. Although there are some targeted scholarships for African American students, those scholarships fall outside of the model. They noted that the approach to achieving mission in terms of racial and ethnic diversity is through targeted recruitment of Latino and African American students, but diversity is not built into the financial aid model:

I don’t ever recall race coming up. When we’re talking about scholarship levels and percentage of need met, race has never once come up in any conversation. As we start looking at the SAT more and the SAT scores tend to correlate more with affluence than anything else. If they [minority students] are underrepresented there, will they now be more underrepresented in our classes? …To the extent we start moving up in more affluent families and we start seeing less minorities, then you could see us start to possibly focus aid on it. We haven’t had to do it quite honestly because we’ve always had a good pool of African American students. (Director of Financial Aid)

Although race is not built into the financial aid leveraging model, there is concern among the leadership interviewed that moving to a model that more actively targets students with the ability to pay the full cost of tuition or more academically accomplished students will have negative consequences on the enrollment of underrepresented minority students:

I find some of our priorities compete with each other. For instance, I know we're looking to increase our academic profile. Ideally, we'd like to lower our discount rate, but right there they compete against each other. The higher ability students, we want to give more merit scholarship money to. But then the students of color get woven into the picture …. It's hard to grow the profile when historically students of color score lower on SAT scores than White students…It would be awesome if we could increase profile, maintain student of color numbers, and lower discount rate all at the same time. I don't know a model out there that exists that can do all three of those at the same time unless you have a lot of affluent students of color. (Director of Financial Aid)
The process of annually establishing financial aid parameters at University A is more nuanced than a straight-forward business model; questions of mission are part of the conversation in determining overall strategy. As an example, the Director of Admissions reported that in 2011, the institution’s average incoming SAT score fell below 1000. Although, as the President reported, the administration and board had established that, “we're not going to be driven by the SAT or rankings” it was generally agreed that the incoming class in 2012, should have an average SAT above 1000. Consequently, the university changed its financial aid approach to recruit students with higher SAT scores, but not without a conversation about the potential impact that change would have on the mission goal of increased diversity:

The important point is that [racial diversity of student body] has been a major topic of discussion… Yes, we want to continue to try to hold the line with regard to academic profile of entering students, but how do we best do that without having a major negative impact with regard to matriculation of minority students. (Provost)

One of the first universities to use financial aid leveraging, University A implemented the process in the early 1980s, and the staff consider themselves adept in using the mechanism to achieve the multiple aims of reaching enrollment targets, meeting financial objectives, and realizing mission goals. However, their ability to successfully manage these various objectives has recently been challenged by an increase in student need and a challenging demographic and economic environment that is generating fewer students with the ability to pay the cost of tuition at private institutions.
Shifting Need-Based and Merit Aid

Given growing pressures on its enrollment and financial aid practice, there have been a number of tactical issues that University A has had to focus on including addressing the concept of need-based and merit aid. A number of the participants at University A commented on the distinction between “need-based” and “merit” aid at the institution arguing that it was a false distinction.

Although the university’s financial aid practice has shifted so that aid is used to attract and/or retain a particular type of student (meritorious, in a particular program, etc.) rather than solely as a mechanism to bridge a student’s financial need, the majority of recipients of financial aid packages are “needy.” However, the change in the practice of awarding financial aid is still concerning to the leadership at University A:

When I say less than 50% [of institutional financial aid is need based], for our students even those who receive merit are needy. So 98% or 97% of our students have need…I would like to say that all aid was strictly need based, “Gee, you need it, so we’re going to give you extra money to come to [University A].” … It’s more merit driven. So if Mary is a high need, high performing student, then we would shift it toward her more than Jim, who is a high need, low performing student. (President)

University A has moved away from using financial aid as a mechanism primarily to fund need to a practice that achieves institutional enrollment and financial objectives within the context of mission. While a large proportion of the financial aid budget supports student need, interviewees noted that that is reflective of increased tuition costs and fewer families capable of paying for private education.

Institutional conversations have turned to affordability, managing financial aid allocations, and, potentially, changing the composition of the student body to students with more ability to pay and/or who are more academically talented. Given that the
institution’s primary revenue source is tuition, the university’s leadership believes it must balance the recruitment of students with more financial means in order to support financial aid for needy students, which has the potential to change the composition of the student body:

Quite honestly, we’re trying to get to the point where we get a more affluent—relatively speaking student population. We’re not going to have people who make half a million dollars. We have some, but not many… We probably can’t sustain the 40% Pell eligible. We just can’t. We can’t meet their need. We don’t have the money. I wish we did, but we don’t (CFO).

University A’s leadership acknowledged that external pressure to increase student retention and graduation rates was also motivating a shift in recruitment and financial aid practices:

In recent years, where I’m disappointed, is we’ve gone from … 50 % of our institutional aid was going to need as recently as five years ago. I think that’s down to 30-40% now. So we’re following the same model that others are because of the pressures about graduation rates and about retention and everything else. We can make those numbers [retention and graduation] look a lot better if we have wealthier families involved so we’re moving in that direction and I’m not completely happy about it. (President)

According to the Director of Financial Aid, the enrollment management team is having a different set of discussions with accepted students—who may not have the financial capacity to afford a four-year education—than they have in the past. The enrollment process at the university had always been to recruit students for whom the university would be a good fit, provide them with as much aid as the institution could afford relative to their need, and wait for them to arrive on campus. Recruitment has always been need-blind, and although the university continues to be need-blind—enrolling students without regard for the level of financial support they will require—
staff are more and more counseling accepted poor students to look for other educational alternatives:

To offer a student several thousand dollars more, for example, in institutional funding if they're still going to owe a lot and they have a zero family contribution begins a separate conversation. "Is this really something that… you can commit to? Not only for this year, but for all four years, can you commit?" More and more we're seeing that families are going to owe quite a bit. And our ability to offer some additional funding becomes a conversation about, "Is this something that your family is willing to commit to for four years? (Director of Financial Aid)

Those who discussed the change in practice from encouraging all admitted students to enroll, to counseling poorer students away from the university were not pleased with the shift. The CFO, Director of Admissions, and Director of Financial Aid all stated that they believed that any student capable of meeting the entrance requirements should have the opportunity to attend University A and referenced the University’s mission of outreach to diverse students. But each acknowledged that poorer admitted students, many of whom were underrepresented minority students, brought with them a level of need that the university could not sustain. They noted that these were the students who were often unable to persist to graduation frequently stopping out because they did not have the financial resources to continue. The change in student body composition that is occurring at University A is being driven by both budgetary and retention considerations, according to the President, the CFO, and the enrollment management team.

Retention and Graduation of Latino and African American Students at University A

University A’s overall graduation rate as well as the graduation rates for Latino and African American students are considerably below the mean of the private nonprofit four-year colleges and universities examined in this research study. Retention and
graduation was an issue that the university had begun to address in a focused manner in academic year 2010/2011, according to the President. In that year, the university analyzed the issue in-depth, including taking a survey of underrepresented minority students who had exited the institution, and in 2011/2012 made student retention and graduation an institutional and budgetary priority.

Among the initiatives added to already in place summer pre-college and mentoring programs were an Office of Student Success and Retention and a program for tracking student success in which all faculty are being trained. The institution has looked at allocating additional financial aid to needy students and meeting more student need than it presently does, but “plugging financial aid in for needy students who have those issues—we don’t have the reserves or funds to do that.” (President) Some specific funding, however, was allocated to students identified by offices working to support minority student retention:

Once we have the [minority] student enrolled, I’ve been working closely with that director [Office of Student Success and Retention] who refers students to us who are performing well academically and who may be in need of some type of assistance—whether it’s academic advising or financial. And then we do look at them as they rise up through the classes….One area we’ve chosen to look at to improve is retention of those students and moving them through to graduation….We have challenge grants we give those students to try to help them financially. (Director of Financial Aid)

The question, “Do you believe additional funding for Latino and African American students would increase your graduation rates for this population?” was met with mixed responses. All indicated that they thought that additional financial aid would increase the retention and graduation rate, but cautioned that aid was not the only or even the determinate factor.
Well, I think to the degree that we continue to be able to invest greater resources in financial aid that is likely to benefit minority students, a very large percentage of whom are going to be students demonstrating need with regard to financial aid. So whatever we can do to reduce the cost of a [University A] education is going to have a positive impact on the overwhelming percentage of minority students.

The lack of persistence is obviously influenced by multiple factors—a very large one being academic success. It’s also impacted by finances and the inability of families to provide the needed funding. And when those financial pressures are combined with perhaps academic struggles, then you greatly magnify the probability that a student is not going to persist and graduate. (Provost)

An analysis of underrepresented minority student departure conducted by the Director of Financial Aid indicated that there were multiple reasons for early departure, and that financial considerations was one of many:

I took a list of students from 2010-2011 who were designated underrepresented minority students and looked at why they didn't come back. It wasn't one universal answer. We had students who were doing extremely well academically and just decided they wanted to go elsewhere. We had students who weren't doing well academically and left. We had students who left due to financial reasons, it would appear. We had students who, it looked like their family had the ability to pay, but weren't doing well academically.

The President argued that additional financial aid would impact on retention, but believed that the role of faculty and staff was equally, if not more, important, “I think it [additional financial aid] would have a positive impact. I don’t think it’s going to be a dramatic impact on minority populations. I think we need to have more faculty and more staff that look like our populations of students.”

Leadership at University A believed that financial aid had a role in retention of Latino and African American students, but were divided on how important aid was relative to other factors such as having a diverse faculty, academic support programs, and dedicated systems for tracking student progress. Leadership was also limited in its ability
to increase financial aid resources in support of low-income and minority students in
more than an incremental manner.

As University A’s leadership focuses on improving the retention and graduation
rates of its Latino and African American students, it does so in the context of its
commitment to a diverse student body and the financial reality of managing an operating
budget almost entirely on tuition. The university meets a relatively low percentage of
student need and is beginning to shape its student population to include fewer poor
students both for economic and retention reasons.

Although income and race/ethnicity are not one, at University A, according to the
President, the majority of underrepresented minority students are low-income. The
President is dedicated to serving low-income, minority students, but is also cognizant of
the challenges associated with retention and graduation of these student populations:

Someone will say, "Oh, [President X] you only graduate 31% of African Americans." Let's assume for a moment that 90% of those African Americans come from low-income, maybe even below poverty. And I would guess that our numbers are at least that 75% of our African American students come out of poverty. The national graduation rates are 7% for that group. We graduate them at 31%. So we graduate them five times the rate of the national [rate]—but there's no reward for doing that. ...There's no recognition and no one talks about it. So you wonder, 'What is the incentive nationally for anyone to take on the issue of helping high need, low-income kids go to a private institution?' …

One thing we do know statistically about underrepresented groups from higher need families is they do better in smaller classroom size. They're more likely to graduate from a school that has a 12:1 versus a 19:1 student to faculty ratio. They're more likely to get the personal attention to graduate. They're more likely to go into the sciences. So you can just say, "They should all just go to places where they can afford and go to the [state university] of the world." I don't think that's the solution. Some students just do better in our kind of environment. So why should they be turned away from that? … There is no national reward for serving the poor. (President)
At University A what the institution can provide in terms of financial support for low-income and Latino and African American students is limited by the constraints of its financial model. Given these constraints, the university is faced with limited choices in achieving the part of its mission committed to educating a diverse racial and socio-economic student body.

Future Enrollment and Financial Aid Practice at University A

Issues of affordability, access, and persistence of students from diverse socio-economic and racial/ethnic backgrounds are balanced against institutional viability as University A looks to the future at its financial aid practice. Interviewees reported that in an effort to increase affordability the Board of Trustees had had conversations about holding tuition increases flat or decreasing costs, and in recent years, University A has sought to keep tuition increases low, although still above the rate of inflation. “Our increase for the last couple of years has been 4%. And although sometimes that feels high given the current economy, they were the lowest percentage increases since 1978,” noted the CFO.

As the CFO and President stated, the increasing tuition discount rate is a concern to them and to the Board of Trustees. The rate, they indicate, is rising primarily because other competitor institutions are increasing their financial aid packages and additional discounting is required to attract and enroll students. As such, all those interviewed expected that the percentage of the operating budget devoted to financial aid would continue to increase as tuition and fees increased and as competitor institutions discounted tuition at higher levels. In addition to increased competition calling for the allocation of additional institutional aid in order recruit students, the leadership at
University A is anticipating a future in which support from federal and state sources declines, putting another burden on the university to bridge student need with institutional resources.

The CFO, Director of Financial Aid, Director of Admissions, and the President all commented on the unstable landscape of federal and state support for student financial aid. State tuition grants in the state in which the university is located provide awards for students to use at either private or public institutions. The state grant program, however, is in transition with eligibility for awards changing and fewer students qualifying for tuition support. Too, the elimination of year-round Pell grants has had a negative impact on student financial aid for some.

The impact of increased need on the part of students, increased competition in the marketplace requiring additional tuition discounting, and the decline in state and federal support, a number of those interviewed—the President, the CFO, and the Provost—indicated that they did not believe that the current financial model at University A and at other private nonprofit colleges and universities was sustainable:

Is the model sustainable? I’m also hearing that from my board—mostly driven by the national conversation. So is there a point where you’re at 80% discount rate? Does that matter as long as you’re making revenue and the students are performing? I don’t know that the discount rate really matters that much. I’m hearing that from presidents. I don’t think they’re alarmed. Most of them are only going to serve six to eight years as president. Those percentages might go up. It’s not going to be their problem to solve. It’s like the national deficit in that way.

(Provost)

The biggest long-term concern I have is, is this model sustainable over the next 10-15 years? How do we know when we’ve reached the limit of discounting? Are we prepared to even begin to consider what might flow from a contraction in enrolment and all that would mean for a tuition-driven institution like [University A]? (Provost)
As leadership at University A calls into question the sustainability of the financial aid model present at the institution and reflects on its own financial aid practice, it has called into question its ability to continue to address issues of inclusion, persistence, and graduation of socio-economic and racially/ethnically diverse students in the manner it has over the last five years. Although enrollment and financial aid practice is managed in the context of mission with a commitment to enrolling and funding a percentage of low-income and minority students at University A, the primary objective of the practice is institutional viability, and the trends outlined above challenge the university’s ability to continue to meet its mission goals of broad-based outreach. Too, given the university’s need to increase graduation rates and its inability to fund students with high need, it is changing its approach to recruitment and dissuading those with less resources who are unlikely to persist to graduation from enrolling. Due to both financial considerations and the need to increase retention, University A’s enrollment and financial aid practice is likely to shift to be less open to lower income and underrepresented minority students in the future.

Conclusion

The two missions described by Schein (2010) - espoused and enacted – have been closely aligned at University A. However, the challenges of the marketplace and the economy are testing the university’s ability to continue to integrate those missions closely. University A has created a mission—the heart of which is civic engagement, and support of a university community that is racially and socio-economically diverse—that is widely accepted at the institution and behind which financial resources have been placed. However, the university is dependent on tuition for its primary income stream,
serves a student body that has major need, and does so in a difficult economic environment where leadership is concerned about continued state and federal financial support for students. The long-term ability of this institution to continue to closely align its espoused and enacted mission is called into question by these constraints.

University A’s mission developed and nurtured through its current President has resulted in an environment in which shared values and mutually-agreed upon plans provide the institution with its direction. Until recently the university’s financial model, driven by enrollment and financial aid practice, fueled the university’s ability to accomplish key tenets of the mission—creating an institution engaged in civic engagement and developing a diverse university community. Guided by the institution’s mission and funded by the financial model, the university has positioned itself nationally as a standard for academic institutions engaging in civic engagement, generating recognition and student enrollment as a result. University A has also been able to assertively recruit minority students and hired faculty and staff of color. Turning now to the issue of increasing graduation rates for all students, including minority students, the university has invested critical, but limited resources in support of student attainment.

University A’s ability to continue to align its espoused and enacted mission is driven by factors somewhat beyond its control—including the economy and its place in the marketplace of higher education. Subtle pressures to shift the profile of the incoming class to students with higher SAT scores may compete with the university’s commitment to serve a racially and socio-economically diverse group of students. University A’s move to target more affluent students and designate financial aid to attract those students while attempting to hold the tuition discount rate constant may mean that the composition
of the university’s student body shifts away from the large percentage of low-income, first generation, students that it has historically enrolled.

Although increased retention and graduation of University A’s students, including Latino and African American students, has been the focus of the university in the recent past, the financial aid leveraging model and the university’s resources allow for little additional financial aid funding aimed at retention. While all participants believed that additional financial aid support had the capacity to increase graduation levels of Latino and African-American students, none believed that financial aid alone would contribute to increased student success. Indeed, the university’s research indicates underrepresented minority students left the institution for a variety of reasons—financial challenges only being one.

University A has begun to make choices in financial aid practice that reflect the constraints of its financial model and the competitive environment in which it operates—targeting enrollment of students with more ability to pay rather than low-income, first generation students; potentially limiting the number of Pell eligible students; counseling admitted students with large financial gaps to choose alternative institutions. In turn, the university upholds its mission objectives of supporting low-income and minority students with investments in retention programs and targeted, but limited scholarship support for these populations. What appears to be emerging at University A is that commitment to the mission of supporting low-income and underrepresented minority students will be narrower and increasingly a subset of financial aid practice rather than the objective of it.

To date, University A’s response to the external economic and demographic challenges described by the university’s leadership has been to maintain a focus on its
mission objectives and continue to serve a diverse student population by (a) managing the financial aid process to include need as a factor when developing criteria for financial aid leveraging, and (b) focusing retention and graduation efforts on programmatic support and limited scholarship funding for students in danger of dropping out.

The institution has not shifted its financial aid leveraging practice away from supporting students with need, but has begun to shape the composition of its student body by discouraging students with high need and less academic ability from enrolling. The university has not abandoned its current model, nor its mission of outreach, but is modifying enrollment and financial aid practice in ways that meet the institution’s financial capabilities and, potentially, increase retention and graduation rates, but may exclude high need students with less academic ability from the university. Given the economic and demographic challenges articulated by the university’s leadership, University A is limited in its ability to make choices with regard to its financial aid practice particularly as it relates to access, persistence, and retention of minority and low-income students.
CHAPTER 6
SEARCHING FOR A SUSTAINABLE BUSINESS MODEL

University B was chosen for participation in this research project as an institution that met student financial need below the median of colleges and universities in the dataset, but graduated underrepresented minority students at a rate above the average of the institutions in the population examined. University B reported that on average, 65% of student financial need was met in 2009—lower than the median of the population examined which was 80%.

Established in the mid-1800s, the urban university was founded by a Catholic priest to serve the primarily Irish and Italian populations that were immigrating to the city. According to written documentation published by the university and supported by comments made during interviews conducted for this case study the university continues to be committed to immigrant populations—now primarily Southeast Asian and Latin American—as well as to students of color and to first generation students. Presently, the university’s underrepresented minority population comprises 17% of the student body more than the mean percentage of Latino and African American students at colleges and universities in the data set of private, nonprofit colleges and universities assembled for this research.

A comprehensive doctorate-granting university, the institution awards bachelor, masters, and doctoral degrees. It was recently ranked as a tier one national university in the 2011 edition of U.S. News & World Report. Under the current President the university has received national recognition for its civic engagement and internationalization programs including being named to the President’s Higher Education Community Service
Honor Roll by the Corporation for National and Community Service. The university presently educates approximately 7,700 students annually at its main campus and at campuses in a number of other locales within the state.

Focusing on Mission

When the current President of University B, a priest, assumed leadership of the university more than 10 years ago, he found an institution with little focus on mission. One of the first actions he took was to lead a process that developed a new university vision, mission, and values statement and created the present long-range strategic plan. Interviews and a review of documents found that the President has imparted a strong sense of mission that is reflective of the institution’s unique characteristics and historic commitments to the city as well as those elements of mission consistent with Catholic higher education. In his speeches, letters to the university community, communiqués to the public, and interaction with his leadership team, the President of University B reinforces the established tenets of the Catholic educational tradition that include academic excellence, the pursuit of diversity and promotion of justice to create a just world (University B website).

The result of the President’s leadership and the strategic planning process he undertook is a comprehensive understanding of and commitment to the university’s mission – a mission that emphasizes Catholic education, academic excellence, active involvement in the institution’s urban location, diversity, and a global perspective. Those interviewed recounted that the university’s mission was advanced by faculty and staff from all areas of campus:

A big part of what makes it [mission] successful—people always say—is you have to have senior level sponsorship, and that the senior administration has to be
really serious about the mission. But I think it is maybe more important that it has actually been firmly rooted at the base. When our [accreditation] visiting team came to campus they said they had never been on any campus where the mission was not just understood but was enthusiastically articulated by everyone from students to gardeners, to senior leadership people, to the faculty. (Provost)

Ranked as one of the most diverse universities in the country for student ethnic diversity by *U.S. News and World Report*, with a Latino and African American student population of 17%, the university’s commitment to the part of its mission that supports a diverse university community is both historic and contemporary:

This was an Irish Catholic institution and an Italian American institution and then in the period of the ’70s and early ’80s, there was a tremendous influx of families coming from Southeast Asia, new immigrants, and we saw a steep increase in their children attending [University B]… Definitely [University B] always had a commitment to underrepresented students and a commitment to maintaining a student body that is socio and economically diverse. (Chief Advancement Officer)

Commitment to diversity at University B is multidimensional reflecting the institution’s long-standing dedication to the city in which it resides; the function of Catholic education to serve a broad range of students; and the belief that a student body composed of students from varied socio-economic, ethnic, and racial backgrounds enhances the learning experience.

One of the characteristics of the university is its diversity and that’s driven by conviction. And diversity [at University B] is very broadly understood—so we’re not just talking ethnic diversity. We’re 13 % international, we’re about 57 % students of color—that’s not all underrepresented [minority students], but includes Asian, etc. So there’s an educational imperative there—we want to get as many diverse perspectives and experiences as we can. (President)

Access and diversity really come together not as entirely overlapping, because you could have a racially diverse wealthy student body if you worked really hard at that. But as you know if you’re concerned with access among people who are not financially positioned to pay our kind of tuition, you’re going to be supporting a lot of people of color as well as poor White students… (Provost)
University B’s articulation of a mission that educates students to be conscious members of a global community and its focus on making education accessible to a diverse student body is observed to be widespread and broadly accepted at all levels of the organization as evidenced in its literature and discussions with senior leadership. Ongoing decisions about how that mission plays out in the creation of institutional priorities and allocation of financial resources seems relatively centralized around a group of senior leaders and trustees.

University B faces the same challenging environment that other institutions in this study described – low endowment, a high percentage of the operational budget funded by tuition dollars and students with higher need levels than students prior to the recession. However, what distinguishes University B is its percentage of “full-pay” students. Where University A, for example, described the number of full-pay students as “a handful,” University B counts a quarter of its undergraduate students as full pay students, primarily as a result of recruitment of international students who make up approximately 17% of the undergraduate class. This student body mix provides University B has some flexibility in its financial model to fund one of its key mission goals - support of a diverse socio-economic, racial, and ethnic student body. However, dependence on any one strategy, including enrolling a comparatively large percentage of full pay students, as will be seen, may not a sustainable approach.

Mission, Planning, and Decision-Making

University B is guided by a lengthy (10 year) strategic plan which provides a broad framework for general growth and direction. The budget process acts as the annual planning process, and day to day operations are managed by three internal bodies
consisting of academic deans, administrative vice and associate vice presidents, and the
President. Beyond the leadership team there appears to be targeted and informal rather
than comprehensive and formal mechanisms for planning. For example, when asked how
faculty and staff participate in planning processes, the President and Provost referred to a
newly formed task force to explore revenue generating options. They did not refer to any
standing planning committees responsible for strategic direction of the university..
Faculty and staff involvement in annual budget planning, too, was described as
perfunctory due, in part, to limited resources:

Somebody will tell you we do [have an internal budget committee]…we sit
around this table here with the VPs and that functions as the budget committee.
There’s not a lot of money left …. We’re not allocating new resources. If a new
program is starting and we need some seed money for that, [the Provost] makes a
compelling case for program X and we say “yay, it makes sense.” (CFO)

Operating under a very long-term strategic plan with few options for involvement
in annual or strategic planning, it appears that mission objectives are not discussed, tested
or sustained at all levels of the organization through planning as they are at University A.
The responsibility for merging mission and decision-making is with the senior leadership
guided by the President:

Recently, in the last 10 years, the mission has driven decision-making and has
been a very strong factor, perhaps the strongest factor… [The President] has
brought a mission focus that didn’t exist or if it did, it wasn’t real strong…It’s the
way he lives and imparts his beliefs with the rest of us. It’s not widely discussed.
It’s just done. It’s a constant undertone with everything that we do and it’s very
quiet, but consistent. (CFO)

Developing a successful financial model in an environment of declining state and
federal resources is recognized as the most challenging endeavor that the leadership is
presently undertaking. Doing so while holding tuition increases low and maintaining a
commitment to the institution’s mission of diversity and access consumes a great deal of the energy of the senior leaders at the institution.

Searching for a Long-Term Sustainable Business Model

Following the recession of 2008-09, the university experienced a one-year enrollment decline and saw student need levels rise. The Director of Financial Aid and the Director of Admissions described an environment in which families had less ability to pay for University B’s private education as a result of either job loss or erosion of equity in their homes. Another factor in the rise of student need levels at University B has been a decline in funding for state tuition grants that are provided directly to students attending either public or private colleges or universities in the state. The cumulative effect of these factors has motivated University B at the long-term viability of its present financial model.

The decrease in support from government—state and federal—the online providers, and the decreased demographics [of middle/upper income students]—tell us that students are coming from that segment of the population that has decreasing resources in terms of their capacities to meet the costs of private college education so this pattern of raising tuition each year is crazy. It’s a death spiral. That’s the big issue for us. And it should be the big issue for every university that’s got its eyes open.

We’re not in a crisis and this is not a storm, this is a permanent change in the landscape. It is never going to go back—so people talking about weathering the storm—that’s the wrong metaphor. This is not “Batten down the hatches and ride it out”—this is “Figure out a whole new strategy that is going to take you out the next 10 years (President).

All those interviewed at University B discussed the challenges to underendowed, private, nonprofit colleges and universities. The President was clear that the financial model of high tuition and high financial aid is not a choice for University B. He believed, as did the other senior leaders interviewed, that tuition costs were at a point that they could not be increased without the university “being priced out of the marketplace,” and
without ceasing to be an option for the low and middle income students that the institution had historically served.

New initiatives to “diversify” the university’s revenue streams have been undertaken including: investing in new facilities to enable the institution to increase undergraduate enrollment strategically; implementing new and expanded academic programs in growing markets such as health care and technology and rejecting potential academic programs that do not have a high margin of revenue (e.g. traditional Ph.D programs). The President and the Provost are encouraging the development of new online degrees, and the President has recently hired a new Chief Advancement Officer who is charged with expanding fundraising efforts, particularly in support of scholarship and endowment funds. The most dramatic change that the university has undertaken to enhance revenue streams is adopting a financial aid leveraging program.

Mission plays a role as University B seeks a financial model that is sustainable. As each of these initiatives are launched, the question of how new activities enhance or detract from the mission is part of the discussion, according to the President, the Dean of Enrollment, and the Provost—whether the new initiative is a new academic program or student enrollment mix. University B’s long-term strategic plan provides the general framework for growth and direction, however, some of the recent impetus for assessing the institution’s financial model and making needed adjustments to it is being generated from members of the Board of Trustees. Trustees are aware of the national debate on tuition increases and student debt and are concerned about shifting support from the state and federal government:

So a lot of the stimulus here has come from the Board of Trustees in terms of a
more rigorous accountability—financially—internally—pushing us hard to figure out how we’re going to—how a tuition-dependent university is going to thrive in an environment where people have less capacity to pay tuition. . . . The finance committee has [weighed in on financial aid]. The Board is anxious. The executive committee wants to spend some time talking about the whole student debt issue . . . We’ve kept them very well informed about this issue. But all of a sudden, it’s become a hot issue because of the attention in the media. (President)

[The finance committee is] very, very involved. They began discussion last time about the potential impact with the state budget and you know, they want updates on that as well as looking forward if we see reductions in any federal or state aid. What does that mean to us? How are we going to respond? What’s our strategy? (CFO)

Economic shifts over the last five years have challenged University B’s financial model and caused leadership at the university to review the institution’s ability to be viable in the long-term, a review that is being considered at the highest levels of the organization. The involvement of the Board of Trustees in issues that may have previously been considered operational - issues such as financial aid practice and enrollment strategy is clear at University B, and at the other institutions in this study.

Managing Financial Aid

Although University B reported in 2009 that the institution met need at a relatively low level (65%) compared to the mean of the population examined in this study (77%) both the President and the Dean of Enrollment speculated that the percentage of student need the institution would meet in 2012 would be lower than that reported for 2009. Both commented that need levels had risen among the student population at a level higher than the university could accommodate given the administration’s commitment to keep the tuition discount rate at a low level. The university awards approximately $65 million of its $330 million budget in financial aid annually—discounting tuition at 26% overall, 33% for the freshman class of fall 2012.
[The tuition discount level] is good and we want to keep it that way because we have a small endowment, and are 90 percent tuition dependent. We can’t afford to let it get higher or we’re going to be where these [other universities] are, at 40 percent …I don’t see how they do that. (President)

Leadership at University B recognizes that there are substantial gaps between the amount of aid awarded and the cost of the university’s tuition which is approximately $45,000.

We know that the gap—I think the gap now is at about $12,000 between what they [students] ask and what we’re able to give. And I think they end up with $10,000 on their plate that they have no way of addressing … So I think that’s our situation at this point and we know that that gap is getting bigger so we’re scrambling pretty fast to try to see what we can do to balance all those factors. (President)

All the members of the senior leadership team who were interviewed at University B asserted that financial aid had historically been used to fulfill the mission objective of recruiting and graduating a diverse student body. The university reported, and the President, Provost, and Director of Financial Aid stated, that 90% of the university’s institutional aid was allocated to students with demonstrated need. Each discussed the shift in financial aid practice to adopt a leveraging program with cautious optimism that the role of financial aid would continue to, primarily, fulfill mission objectives.

New Approach: Financial Aid Leveraging

What we’ve really tried to do is use financial aid to maintain the kind of diversity in the student body that is characteristic of this place and that includes first generation students, students of color, etc. In the last four years or so, we’ve been very focused on balancing that with the need to leverage net revenue … So we’re trying to keep the discount rate steady, we’re trying to leverage net revenue and maintain diversity which is a very complicated effort. …Thus far, we’re able to do that. We’re just keeping our fingers crossed that we’re going to continue to be able to do it. (President)
All of the institutions that participated in this research project use financial aid leveraging as part of their financial aid practice. Of the four participant universities, University B has used the practice the shortest amount of time and is still assessing how the practice relates to the institution’s ability to balance its mission objectives of enrolling and graduating a diverse student body with funding the university’s overall needs. With the implementation of financial aid leveraging at University B, managing financial aid has gone from an internal practice directed almost exclusively at meeting student need to a program that relies on outside consultants and strategically uses merit scholarships to recruit targeted populations and increase net tuition revenue. The CFO was instrumental in encouraging the change in tactics:

Well, [financial aid] was becoming a larger percentage of the budget, but it was also [recognized] that it could have a significant impact on the type of student and number of students and mix of students, etc. …There was tremendous resistance to shifting money from need. I didn’t have a strong position on it, but I thought it was something we should at least look at and sure enough, my hunch was accurate that we could achieve the goals we wanted and improve the bottom line. The initial few years of financial aid leveraging has seen positive results according to the CFO, President, and Provost: positive results including an annual increase of approximately $5 million in net tuition and decrease in the tuition discount rate, the same percentage of students of color in the incoming freshman class, and a class that is stronger academically. The reasons for the success of the financial leveraging program are not universally agreed upon, however. The Director of Financial Aid pointed to the probability that providing additional levels of merit awards resulted in enrollment of students with more ability to pay; the Dean of Enrollment noted that there has been an increase in transfer students who receive little to no financial aid and that has been the primary reason for increased net tuition. All recognize, however, that there
has been a change to the approach in meeting the “gap” between the student’s financial need and the costs of attending University B, increasing the gap for some students and closing the gap for others based on recommendations from the financial aid leveraging consultants. Similar to University A, University B is actively counseling students who are admitted, but for whom the gap between aid and tuition costs are large, not to enroll at the institution:

What we’re essentially doing with the packaging process is we’re making the students for whom we truly run up a significant gap think twice about making a commitment. …We [financial aid staff] sit down and we say, “This is what the burden would be for you for this year, but think about it in terms of at least another two years if you’re a transfer student and another three years if you’re a new freshman coming in. Is this realistic? …Is this appropriate? … It’s very hard for people to understand …it’s not like if I can’t afford the car this year, I’ll save for another 12 months and then see what happens. (Director of Financial Aid)

University B is adopting a financial aid leveraging approach in a measured manner, openly monitoring the impact, and discussing the possible outcomes of a financial aid practice that focuses on net revenue, utilizes some merit aid to attract students with a greater capacity to assume the costs of the tuition, and uses “gapping” as a mechanism to encourage or discourage certain students from enrolling. The President notes that the leadership team reviews enrollment data monthly analyzing trends in applications and deposits and that a small group of faculty and staff is closely examining the results of the first year of financial aid leveraging on various student populations. Other senior leaders talked about the ongoing conversations concerning financial aid practice, viability, and mission:

So I think it’s a learning opportunity for everyone to really think through what we are doing. Why are we doing what we’re doing? Why are we allocating the financial packages that we’re allocating? What are our priorities? And how do we represent those? And it’s not easy. It’s not as if there’s the simple, right answer. I think that it’s a conversation that won’t stop. And it’ll probably become even
more difficult in the face of what we’re all facing with more state [tuition grant] takeaways, which we’re looking at right now—a $4 million hole for us for next year if that happens. . . . We couldn’t fill it all. We might be able to do it the first year, but then what happens? (Provost)

We have limited resources as most schools do, perhaps more limited than some. We’ve got to strategically utilize our financial aid—a number of factors come into play. Recently the strongest factor has been net revenue. So how do we utilize financial aid to maximize net revenue? Unfortunately, that factor conflicts with some of the other desires, such as attract and retain whatever segment of the population you’re looking for, whether it refers to first generation students or other underrepresented students. Whatever it may be, how do we balance those things? That is an ongoing challenge and we don’t have specific targets as far as—are we going to maximize net revenue and just give merit aid to those meritorious students at the expense of the students who have much greater need and that won’t bring as much net to the table. (CFO)

Day to day decision-making around enrollment and financial aid practice at University B resides with the President and senior leadership who are both monitoring the results of financial aid leveraging and are in on-going conversation about how the mission of the university may be impacted by employing leveraging. As leadership looks at enrollment and financial aid at the institution, it is engaged in dialogue about not just financial aid allocations and student body mix, but also about alternative revenue streams including new academic programs and delivery systems. Enrollment and financial aid practice at University B is integrated with (a) the university’s mission and (b) the larger financial model that includes overall growth and institutional direction.

All interviewees were pleased that financial aid leveraging had not negatively impacted on overall mission goals, but the Provost, the Dean of Enrollment, and the President exhibited caution and expressed the need to track shifts in student body composition that might arise from the new practice. Given the multiple economic pressures on University B, how the institution manages the use of financial aid to achieve its comprehensive goals while remaining viable will require continued focus on the
institution’s mission and dialogue among senior leadership that honestly addresses potential conflicts to that mission.

Retention of Latino and African American Students at University B

Mission remains, but there is debate about whether it can be sustained long-term. As noted previously, the graduation rates of Latino and African American students at University B are substantially above the median of the private, nonprofit four-year degree granting colleges and universities in the United States. All of those interviewed identified a number of factors they believed contributed to the higher retention and graduation rate: (a) a critical mass of students of color; (b) substantial number of faculty and staff of color; (c) supportive academic learning environment and strong support services; and (d) active student organizations promoting issues of importance to Latino and African American students.

All interviewed discussed new initiatives that had been launched to enhance retention and graduation rates of underrepresented minority students, and each commented that increasing these rates was a top goal of the university. Recently adopted retention efforts identified included implementation of an early warning tracking system to “catch anyone who’s falling through the cracks,” and centralizing advising and support services under a newly hired Vice Provost. A number of those interviewed indicated surprise that the graduation and retention rates were above average compared to other nonprofit, private institutions, and acknowledged that the university’s focus on retention efforts was a relatively new effort.

When asked if they thought that meeting student need at a higher level would impact retention and graduation rates—particularly for Latino and African American
students—senior leaders at University B were divided in their responses. The majority believed that retention and graduation would increase with additional financial aid resources, but argued that other initiatives were equally if not more important to strong rates of persistence. Financial aid for retention is considered in terms of funds for interventions or adjustments to compensate for increases in tuition rates, but not to bridge extensive financial need. Some senior leaders, specifically those who work directly with students who leave prior to graduation or students who need funding in addition to their financial aid packages, indicated that additional aid would help to retain students. The President, however, indicated that he did not think about aid in relation to persistence and graduation:

Financial aid, I honestly I never think of it in those terms [retention]. It think of it almost exclusively in terms of access. We do however increase the financial aid each year as the tuition increases. There’s some kind of proportionate increase on the financial end. … We didn’t used to do that when I was at [another university]. That’s not the case here and I don’t know that every university does that. (President)

Yes, definitely, [I believe more financial aid would assist with retention] because I ask staff to exit interview people as often as possible. And we all know that you may not necessarily get every truthful or accurate answer about why someone is leaving the university, but they almost always said it was financial or personal—family circumstances or something like that. What we have is an emergency fund that we’ve set aside. It used to have multiple pockets [funds from the sponsoring religious order, deans, President]… We would find ways. It wasn’t a financial aid package. These tended to be more interventions when we would find out that a student was in distress. Now we’re trying to organize that a little bit more effectively. (Provost)

For certain students—absolutely. For certain students—if you look at the pattern of who has taken a semester off or who in fact is chugging along at 12 units as opposed to 16 because either their work schedule or their schedule at home and what their family needs is making demands on them, being able to lift that kind of thing would certainly make a difference …..Then you’ve got the group who are truly over their head. I mean, they didn’t have the resources when they started and it just gets worse as they go along and there’s no way they’re going to finish here without a significant stop out at the very least. (Director of Financial Aid)
There is a recent shift in financial aid practice at University B that includes increased gapping for low-income students with less academic preparation and has the potential of decreasing opportunities for underrepresented minority students at the university. As national data indicate that students of color more often come from families of limited means (CPC, 2012) and enter postsecondary education with less academic preparation, gapping may make it more difficult for low-income and underrepresented minority students to persist.

Leadership is closely monitoring the practice of distributing financial aid in the context of the university’s mission; however, increased gapping for low-income, less prepared students who chose to enroll at University B has the potential to make it more difficult for students to make successful progress toward completion. Increased gapping might result in students increasing hours of work to pay for tuition costs and/or stopping out to raise additional funds for their education.

University B is new to financial aid leveraging, having only enrolled one class under the practice at the time the interviews for this case study were conducted in spring 2012. Institutional leadership is pleased with the initial results, particularly the increased net revenue generated and the fact that the increased revenue was secured without compromising the university’s commitment to diversity and access for low-income, first generation students. Still, some of the leadership interviewed have concerns about the university’s long-term ability to finance its operations and maintain its mission at the same level it has in the past. There is also trepidation about future sustainability in terms of the current model for financing private, nonprofit institutions. Specifically, those that draw their students from middle and lower income populations face challenges to provide
high quality education while maintaining costs and providing sufficient financial support to recruit and graduate students at a competitive rate.

Leaders at University B recognize that they make decisions about enrollment and financial aid practice in the context of a broader conversation on the efficacy of the present financial model in higher education. The CFO, the Provost, the President, and the Dean of Enrollment all commented on the challenges of managing enrollment and financial aid in an environment of declining state and federal aid and with little sense of what is the long-term sustainability for institutions like University B:

The two factors that go into play …are federal and state aid… If that shifts, you know, all bets are off. The other is how successful we are in fundraising. Can we improve that significantly or even keep pace with the growing demand? And then, what types of students we’re recruiting. (CFO)

I think it’s a national policy issue. All this business of everybody running around—the sky is falling—higher education is in crisis. That’s right, it is in crisis because the federal government and the state have stopped supporting higher education… The problem is that we’re all trying to solve this ourselves now. And the dominant discourse is the market discourse. Find efficiencies—develop a new business model—more efficiently deliver learning. And we’ve allowed that market ideology to corrupt what really should be a basic human right in my view: to get a quality education. So what are people left with? Nothing. The state system is now going to be out of reach for them. And the privates are being looked to bail out the state and the feds. (Provost)

Senior leaders have identified national, state, and local dynamics contributing to the challenges of guiding their institution. The university’s administration, led by the President, is committed to a racially and socio-economically diverse university community in an environment in which state and federal funding for higher education is eroding and/or in jeopardy and in which future students are projected to come from families of limited economic means. Senior leaders at University B anticipate continuing to struggle with how to achieve these multiple and potentially conflicting goals.
Conclusion

University B is mission-focused—a result of its particular history and purpose as a Catholic university that has traditionally served immigrant populations. Both its espoused mission and its enacted mission support the goals of Catholic higher education—upholding academic excellence and critical inquiry in a diverse community of students, faculty, and staff and instilling in students a commitment to leadership through service and promotion of justice to fashion a humane world. Speeches, websites, and publications speak openly and consistently of the university’s mission. Leaders interviewed communicated a comprehensive understanding of the institution’s mission discussing how the mission played out in particular academic and operational areas as well as at the level of university decision-making level.

Being a university that is dependent on tuition for more than 90% of its operating budget challenges university leadership to support mission in the context of substantial external pressures and internal limitations, all interviewees noted. Recent change in financial aid practice at University B to employ aid leveraging has been adopted with considerable attention to maintaining the university’s mission of racial and socio-economic diversity, according to the President, CFO, and Provost, and results from the first year implementation left senior leadership cautiously optimistic that the shift in financial aid practice can both offer additional revenue resources and continue to support a diverse student population.

All interviewed were concerned that the current model is sustainable only if: (a) support from the federal and state governments does not decline drastically; (b) the institution can aggressively develop market-sensitive academic programs and delivery
systems to offset the costs of the traditional undergraduate program; and (c) the university can continue to recruit student populations with capacity to pay full tuition costs to subsidize those who cannot.

University B’s leadership considers its record of graduating Latino and African American students at a comparatively high level to be the result of the critical mass of students and faculty of color at the university and the consequence of a supportive academic environment. It has implemented new initiatives to increase the persistence and graduation rates of all students, with a focus on low-income, first generation students as well as students of color. Financial aid, beyond the initial aid package, is not used to support retention except in emergency cases. The change in financial aid practice that increases gapping for some students may impact negatively on retention of low-income Latino and African American students if those students have large “gaps” in financial support that require them to work more or stop out with greater frequency and slow their progress to degree. The university will need to monitor the new financial aid approach with an eye to retention and graduation as well as enrollment to ensure that its mission of providing a high quality education to a diverse student population is not compromised.

University B’s mission and leadership have resulted in an environment in which the institution’s mission is the context in which decisions are made by an informed set of senior leaders. The external realities of demographics and a challenging economy compel the institution to make choices about its future within a limited framework. Identifying a sustainable business model that is consistent with the university’s historic purpose and present-day vocation has resulted in a reaffirmation of the university’s understanding of its work and purpose, but has also begun discussions about what is required to remain
viable—what is the scope of the mission given the realities of the environment in which the institution is located.
CHAPTER 7

MEETING FULL NEED: CAN THIS COMMITMENT BE MAINTAINED?

University C was chosen for participation in this research project as an institution that met student financial need above the median of the population examined for this research project – a subset of private, non-profit four colleges and universities that reported financial aid practices through the Common Data Set. The university also graduates underrepresented minority students at a rate above the average of the private, nonprofit four-year colleges and universities in the United States.

University C has made a commitment to meet a high level of student aid. In fact, the institution advertises that it meets the full need of its enrolled students. The institution has successfully utilized financial aid to recruit, and enroll students of color and low-income students, and has been successful in graduating its students at a high rate—including its Latino and African American students. Changes in strategic aims, however, along with economic pressures are threatening this commitment and may shift the university’s approach from one that meets all student need to a more strategic distribution of its resources in support of financial aid similar to the other institutions in this research study.

Established in the mid-1800s and located in an urban area, University C was founded as an all-male college by a Catholic religious order. According to the university’s website, the university’s development has been guided by a focus on higher education, which the university defines as intellectually challenging, centered in the liberal arts, and committed to meaningful service and leadership. Historically, the university’s population was fairly uniform as most of the students were White students.
from upper middle and upper class families. Under the leadership of the current
President, who has been in the position for slightly less than a decade, University C
sought to both increase the representation of students of color and low-income students
on campus and to meet need at a high level to enable students from these backgrounds to
enroll and attend the university:

When we talked about his [the President’s] vision and some of the goals,
objectives as it relates to the undergraduate population, a lot of them focused
around issues of diversity, and, in particular, diversifying the student body… in
those discussions we talked about [how] there is a race-ethnicity piece of this, but
there is a socioeconomic piece [as well]. [University C] already had been meeting
north of 90 percent of need anyway in its aid policies on average… the goal, the
hope was that we’d see … a [University C] education be accessible for students
who have the academic where with all to be successful here and for whom it’s a
good fit, regardless of their social economic status and background….We’ve seen
good results. (Dean of Enrollment)

Efforts to increase socio-economic and racial diversity at University C have been
successful, according to the Dean of Enrollment. Data from the 2009-2010 IPEDS report
indicate that the university’s underrepresented minority population made up 11% of the
student body at that time. However, the Dean of Enrollment indicated that minority
student enrollment has increased since that report and that more than 20% of the fall 2012
incoming undergraduate class were students of color. He noted that 20% of the students
in the fall 2012 class were first generation students up from an estimated 12% 5 years
prior when the practice of meeting full student need was implemented. The number of
students eligible for Pell grants has more than doubled during that same five year period
—increasing from approximately 7% to 15%, he reported.

The university is highly dependent on tuition to fund the operations of the
institution, generating more than 90% of its $250 million budget from student tuition and
fees, according to the Chief Financial Officer (CFO). About 40% of undergraduate students pay the full price of the institution’s tuition, which is over $50,000. As a consequence of the high percentage of full pay students, the university’s discount rate, at 35%, is low compared to the national average of 40% for private, nonprofit institutions (GAO, 2012) even though it meets full need of its enrolled students. It should be noted that University C defines need according to an institutional methodology rather than the methodology of the federal government and works with a service provided by the College Board to determine the need of their students:

We use institutional methodology to determine need…The institutional methodology ignores the federal process and it’s a more economically sound approach to defining income and defining assets. . . . It [expected family contribution] is generally higher [than the federal methodology] … because it includes all sources of income in addition to just regular savings and investments and those sort of standard assets. It does include an assessment of home equity. . . .you can set a minimum student contribution. You can set a minimum parent contribution or both. . . .Institutional methodology can yield a lower contribution than the federal methodology, but in probably 70-75% of the cases . . . it’s going to yield a higher family contribution. (Director of Financial Aid)

According to the Dean of Enrollment, University C’s focus on meeting the need of its student body, as defined by the institutional methodology, is a direct result of the commitment to recruiting students from more diverse socio-economic backgrounds. As stated in the university’s strategic planning documents, planning processes over the last decade have identified several core values—three of which are held up as the values that form the institution’s identity. Fostering a diverse university community and educating students to positively interact in a multicultural world are two of the three principal core values articulated. The third core value asserts the university’s commitment to a Catholic education in the tradition of the religious order that established the university.
Best in Class: Mission Redefined

University C is presently operating under a five-year strategic plan that is set to expire in the near future. Under that plan, the university has adopted the goal of becoming the best university in its peer group establishing a number of metrics to define when/if it achieves this distinction—metrics that compare the university’s selectivity, financial viability, and reputation with its peers. The goal of being “best in class” is put in the context of the institution’s core values, of achieving a diverse university community, preparing students for a multi-cultural world, and doing so with a commitment to Catholic education.

The university’s commitment to diversity is an educational as well as social commitment. Leadership believes that a learning community in which there are faculty, staff, and students from different socio-economic, racial, and cultural backgrounds provides a critical component of a high quality education:

I think that no matter how you articulate the mission of an institution of higher education, there always has to be the dimension of excellence and of quality. There’s no substitute for that. And the excellence of [the] educational environment is diminished when the population becomes more homogeneous. "When your admissions policies are overly need sensitive and price sensitive that you develop a student body that is not as robust and therefore not as excellent, the experience of the students is less robust. … I said I want to be about excellence at every turn and challenge. And I say that [University C] is not agnostic about questions of character… I think that means learning to live and lead in a diverse world. (President)

Enhanced diversity for us raises the quality of education for all students and we’re keenly aware of that and we’ve worked hard in our [academic] division and in partnership with others to help the community see diversity not as something we do so we can represent better the United States or something we do out of a sense of obligation or justice or opportunity for given individuals, but rather something that must be in place for an appropriately high quality experience, and when we didn’t have that here before I saw it as sort of a downhill pattern. (Provost)
Senior leaders interviewed at University C described an environment in which the university’s mission and core values are “deeply embedded into the operation of the university” (CFO); “drenched in everything we do” (Executive Vice President); “articulated very well…folds into decision making—into things like curricular decisions, into conversations” (Provost). Every member of the leadership team interviewed spoke extensively of the experience of mission at University C and discussed how mission drives planning, budgeting and implementation as evidenced by how the university’s enrollment, financial aid, and hiring processes have supported the creation of a more diverse learning environment. However, in the years since the recession of 2008-09, student need has increased at the university and the demands of becoming the best university in its peer group have University C’s administration rethinking the institution’s capacity to continue funding the financial aid component of the mission initiatives at the level it has for the last several years. Institutional leadership had very recently begun to engage in discussion about the institution’s capacity to fully fund student need and encourage enrollment of low-income and underrepresented minority students when I conducted the interviews for this case study in summer 2012.

Planning and Governing at University C

According to the Executive Vice President (EVP), University C has historically been committed to strategic planning and institutional priority setting; the consequence of which is widespread understanding of and commitment to initiatives in the present plan. Budget planning is aligned with strategic planning and, correspondingly, the university’s mission and objectives:

As we develop the budget … we look at those strategic initiatives and those new initiatives that support the strategic plan. And I stress that the priority of funding
new initiatives should be driven on its support to students and its support to [the] strategic plan. (CFO)

As the institution works to integrate mission and goals it relies on a robust and inclusive planning process and system of governance. According to the EVP, University C has only a few major governance bodies, one of which is an overarching committee whose responsibility it is to oversee the strategic plan. Under this main body is a committee that specifically builds the annual budget. The overarching committee is led by the Provost, and the budget committee is chaired by the CFO. According to the Executive Vice President, the composition of these bodies is fairly equally divided between senior administrators and faculty leaders as well as a number of undergraduate and graduate students. The combination of broad involvement and comprehensive processes results in wide-ranging knowledge of key institutional financial and planning issues:

There’s wide discussion and there would be reports throughout the year at the [overarching committee] related to budgetary matters—faculty compensation goals, progress toward faculty compensation, financial aid reports, admissions reports, housing, . . . revenue and cost, human resources, in terms of employee compensation aside from faculty compensation—those kinds of issues. …So they’re very familiar with balance sheets and budgetary [issues]. We’re, I think, very transparent. …I think the budget committee would probably meet 10 to 11 times a year and the [overarching committee] would meet around that much. (Executive Vice President)

The committees that guide strategic planning and budgeting at University C are broad-based and have authority for authentic decision making. According to the EVP and the CFO, the budget committee recommends a budget to the overarching committee—a budget that includes proposed tuition increases and salary increases. The overarching committee reviews and approves the budget and makes a recommendation to the President. The President’s Cabinet is involved only in an advisory capacity to the
President and as members of the planning and budgeting committee. It is, ultimately, the committees with their comprehensive representation who create planning and budget proposals for the President’s review. The President brings the committee’s budget forth, with input from him, to the Board of Trustees.

The board of trustees of University C is integrally involved in the institution’s planning and budgeting processes. Similarly, to University A and University B, trustees have increasingly requested information around financial aid issues—including updates on modifications of state government funding and changes in the institution’s tuition discount rate, according to the CFO and the President. Reflective of the Board’s interest in enrollment and financial aid as the key driver of the operational budget a newly established enrollment management and communication committee was added to the Board’s committee structure. As noted by the EVP, “enrollment is such a big driver here; they’re going to spend more time on that.” According to those interviewed, the full board of trustees as well as the finance and enrollment management and communication committees of the board receive regular reports on both enrollment and financial aid strategies. Every member of the leadership team interviewed stated that the discount rate is a major concern of members of the Board of Trustees at the present time and that the university’s current approach to meeting student need is under review by senior administration and trustees alike.

Meeting Full Need—Changing Direction?

All of the senior administrators interviewed for this case study were proud of the fact that the institution has met student need at a high level and believe that this financial aid approach has resulted in increased economic and racial/ethnic diversity. All those
interviewed stated that the university’s mission was well-served by the financial aid policy that had been implemented over the previous five years, but each also noted that the recession of 2008-09 and resultant difficult economy has made the policy of meeting need at a high level a difficult one for the university to sustain.

I think—for us—our challenge is that we have a relatively small endowment for the type of institution we are, and for the competition we operate in, so we’re not offsetting financial aid with endowment dollars—it’s really tuition dollars. And that has made it increasingly tough despite the fact that we have an abnormally high percentage of full payers … So that is what has allowed us to be generous with our need-base status. But that full paid population is becoming increasingly difficult to identify and track with everything that’s going on in the economy.

Everybody’s—in terms of the student that applies for aid—need is going up. Average family incomes aren’t going up even with very minimal tuition cost increases, which we’ve been trying to do the last few years. They’re out pacing family income—so need is going up, so the demand [for aid] is greater. (Dean of Enrollment)

In order to manage the operating budget in an atmosphere of limited tuition increases and a reduction in an annual state allocation made directly to the university, and to fulfill the university’s commitment to meeting full student need, the institution has engaged in cost reductions by freezing or reducing non-personnel operating budgets in each of the previous five years (fiscal year 2008-09 through 2012-13). During this time period, raises for faculty and staff have increased modestly (2-3%) or not at all. The university’s economic constraints have been felt most acutely, according to the President, Provost, and CFO interviewed, in the areas of faculty hires, faculty development, and capital improvement. Some planned faculty positions were not filled, faculty compensation increased at a lesser rate than the university faculty compensation plan called for, and needed renovation of buildings has been delayed.
A combination of an increase in the rate of the tuition discount, five years of flat or reduced non-personnel operating budgets, and lack of ability to move forward with initiatives thought to be important to the mission of achieving prominence among peer institutions has brought University C to a point where it is reconsidering its financial aid policy. The Provost, CFO, and Dean of Enrollment noted that the university’s core mission elements were competing with each other—that the goal to bring University C to a level where it is considered the “best in class” among its peers is in competition with meeting full need to help create a socio-economic and racially diverse environment.

The Dean of Enrollment reported that the enrollment yield—the ratio between offers of acceptance and students enrolled—had declined in recent years overall, but increased among low-income students. He and the Director of Financial Aid are concerned about the dynamics of that trend as yield rate is an accepted indicator of quality and selectivity. According to the Director of Financial Aid, “Our yield rate on admission offers – acceptances - has declined precipitously. We’re down to 14% probably. When it’s all said and done this year might be another point lower—13%.” Both the Dean of Enrollment and the Director of Admissions discussed a trend that they indicated was increasing in which students without demonstrated need expected financial aid support in order to enroll. University C provides a very limited amount of merit aid to students without demonstrated need:

So for us what we see is oftentimes students that we don’t award merit [aid] to will get merit from another institution—even though we’re more selective. . . . They say, “I’m getting $10,000 here, why aren’t you giving me anything?” And so our big challenge—and whether it’s for the full payers or just students in general—is how do we elevate the reputation of this institution to the point where students—the full payers who have the ability to pay—will have the desire and the willingness to pay our premium. (Dean of Enrollment)
The expectations are unrealistic. Every family thinks their kid deserves a scholarship now. All these things that are emerging or have been emerging over the years are related to cost. The cost is just too high for any family—even the most [wealthy]. I have been referring to it this year as the full payers are rebelling. At some level they always knew that they were paying for other kids, because they were paying full cost…. They’re not willing to do that anymore (Director of Financial Aid)

However, the difference in yield rate between high need students and low need students is substantial. The Director of Financial Aid reported that the yield rate on students with a high level of need was the highest of the students in the applicant pool—approximating 40%. “We’re giving some of these students $30,000, $35,000, $37,000 grants…If you’re awarding that student a $35,000 grant and you’ve got 10 students; you’re up to $350,000. It becomes a budget issue more than anything.”

The current financial aid policy, although contributing meaningfully to the diversification of the university and enhancement of the academic quality of the institution that has resulted from that diversification, presently challenges the institution’s ability to recruit and enroll students capable of paying all or a considerable portion of the tuition costs that fund the operations of the university. The policy also tests the university’s ability to achieve its goal of being first among its peers—as one of the key measures employed in U.S. News and World Report rankings to determine selectivity is the yield between accepted and enrolled student.

University C’s practice of focusing its institutional aid on students with demonstrated need may have had the effect of reducing its yield rate in recent years, and potentially its selectivity in the eyes of the world. The university uses the majority of its institutional aid dollars in support of needy students. It has only a small pool of scholarship dollars that it awards to students who are very academically talented. The
university has not, to date, utilized institutional aid to encourage students who are neither highly talented nor needy to enroll. The Dean of Enrollment and the Director of Financial aid believe that the university has lost applied students to competitor institutions that offered merit aid when University C did not.

Despite the concerns about fiscal viability and institutional competitiveness, each of the senior leaders interviewed was reluctant to move away from the current policy of meeting full student need and concerned about the potential impact on the recruitment, enrollment, and retention of students of color and students from low and middle income families. The President projected that the following would occur with a move away from meeting full need:

I think that two things will happen. First of all—that our [African American, Latino, Asian, Native American] population will shrink, and students who do come will be less high need—more lower need. Therefore, [they’ll be] from socioeconomic backgrounds that …position them for success with the university. So some of the students who now come who are first generation, for example … I think we’ll see fewer of them. And they are—I think—at greater risk both academically and culturally. Part of our success is in meeting need [and] in making them feel acclimated and acclimating them to the culture and to the academics. (President)

For the last five years University C has engaged in a comprehensive initiative of meeting full student need. This initiative, an outreach of mission, was led by the university’s President and the Dean of Enrollment. Meeting full need was possible because of the institution’s financial model that depends on a high percentage of full pay students to underwrite those students who are unable to pay. The present strategic priority – of being considered “best in class” among its peers- coupled with shifting economic realities that have seen an increase in student need and an unwillingness of families with the capacity to pay the full cost of tuition to enroll without some financial
support, is threatening the ability of the university to continue to provide substantial support to students with need.

University C is at a critical juncture in its history. The university aspires to be the top institution of its type and must increase its reputation to do so —reputation that is judged largely by selectivity and measured in part by yield rate. The institution is dependent on tuition to underwrite its operations and has situated itself in the marketplace to draw a high percentage of students whose families have the capacity to pay the total cost of its tuition and for whom the institution is their top choice. Maintaining that percentage of full or nearly full paying students enables the university to fulfill its current commitment to funding a high percentage of need and to underwrite programmatic and capital initiatives that enhance the educational experience. Too, the current balance of full pay students preserves a level of tuition discounting that the institution’s leadership—including its Board of Trustees—deems fiscally responsible.

However, increasing selectivity by increasing yield rate will require a different approach to financial aid in the current economy and at the level of tuition that the university is presently charging. Although highly selective, University C has not reached the status of institution that is able to yield students at high levels no matter the tuition costs. The university must balance its desire for a diverse socio-economic and racial student body with its commitment to be the first in its class and with a need to enroll students from upper income families to fund university operations. The university continues to be committed to providing access and support for low-income and underrepresented minority students, but will, most likely, be looking at alternative approaches to achieve that commitment.
Senior leaders interviewed acknowledged the difficult choices the university faces in the near term as it evaluates the financial aid policy of the past five years and considers changes to that policy going forward. All interviewed indicated that changes to the financial aid policy would be reflective of both the university’s mission and its historic approach to making decisions. Decisions would be made, the President said, in the context of the university’s next strategic plan in which financial aid would be a key focus.

Innovating in a Traditional Environment

Senior leaders interviewed for this case study indicated that they were looking at a number of new initiatives to increase financial resources in addition to weighing potential new approaches to financial aid. According to those interviewed, building additional revenue streams will allow the university flexibility in its decision-making around issues of financial aid policy and positioning of the institution.

Everybody is saying, “Oh, we’re tuition driven.” Probably 99% of the colleges and universities in this country are tuition driven—unless you’re fortunate to be one of those elite institutions. We’re not any different than the majority of institutions, but the question is … how do you look for other sources of revenue to help augment or help support this additional growth? (CFO)

Interviewees identified several areas to be explored in what they referred to as “a new business model”: (a) targeted fundraising aimed at securing endowed scholarship funds; (b) potential new enrollment pathways for undergraduates and graduates; and (c) “doing less with less.” According to the CFO and the President, looking for new sources of revenue at University C will require both expanding the focus on traditional revenue streams—such as fundraising—and considering new ways of doing business. The university’s successful financial model relying on the effective recruitment of a high number of full pay students has enabled the institution to meet its academic and financial
aid needs without considering new delivery systems, enrollment strategies, and program
development that the other institutions in this study have been exploring for some time.
University C sees itself as a traditional, highly selective liberal arts institution with
professional programs in education and business. Those interviewed noted that some of
the initiatives under consideration might require the university to think differently about
the organization.

University C is in the quiet phase of a capital campaign. In preparation for the
campaign, volunteers and staff worked together to identify critical initiatives. Leadership
determined that scholarship and endowment should encompass a large portion of the
raised funds in this effort diverging from prior fundraising efforts that centered on capital
and programmatic improvements. During planning for the campaign, the impact of
endowed scholarship funds was noted:

... the chair of the advancement committee [of the Board of Trustees] called me
up and said..., “I know how tuition driven we are and I know what a game
changer financial aid is .... I don’t think $20 million is enough.” ...I called [the
Dean of Enrollment] and I said, “What’s the magic number?” He basically said
for us to change the discount rate one percentage point we needed to raise $30
million in endowment. (Chief Advancement Officer)

All interviewed supported the idea of integrating fundraising goals more closely
with the day-to-day operating needs of the organization and commented that that
integration had been lacking in prior fundraising initiatives.

Developing new revenue streams for University C, it was articulated by the CFO
and the EVP, may require modification to the student population that the university
presently targets. Although many institutions rely on having a percent of their students as
transfer students—as those students receive considerably less financial aid than incoming
first year students—University C does not. In fact, the CFO noted that the number of new
transfer students arriving in Fall 2012 was minimal and that these students transfer from
other similar institutions—particularly Catholic colleges and universities—rather than
community colleges as the university has developed no articulation agreements with
community colleges. Changing the institution’s perspective on transfer students may be a
challenge, however, he noted, “We’re looking for transfer student opportunities. And
we’ve been pretty snobby in that area with regards to transfer students. We’re finally
relaxing a little bit and we are recruiting up to 65 new students this year that are
transfers.”

All interviewed noted that the undergraduate student population was probably at
capacity, but that there was room for growth in the graduate student population. Some
stated that strategic planning was required to target those programs that had the most
potential and could generate the most “margin.” The Provost reported that consistency
with the university’s mission and the strategic plan, as well as availability of resources
and the ability of the institution to fully implement the program/position were all
components of a matrix he had tested with his deans and would be implementing it
formerly in academic year 2012-13.

Almost all interviewed noted that the university had seen extensive growth in
academic programs and personnel over the prior two decades, and, the President put forth
the idea that “less could be done with less.” The President and Provost noted that there
had been little reallocation of resources when new programs were developed and stated
that most of the new growth had been in addition to existing programs. The Provost
indicated that the university’s would be assessing the efficacy of certain existing
programs and, potentially, reallocating existing resources to other initiatives—including the financial aid budget.

It’s not just doing more with less, but it’s really doing less with less, I mean do we need to do everything that we’ve been doing? The period of my two immediate predecessors has been one of enormous growth and adding, adding, adding. Is there a point where—and we were talking about this yesterday—the Provost said, “We have some terrific programs that have come in that we have a little endowment money for this or some money for that.” And you go, “There are nine people [enrolled]. And is it that we need to refigure? And do all of our graduate programs make sense in terms of their models? What do we do to enhance revenue opportunities?” (President)

It is evident that mission is foremost in decision-making at University C. It is also clear that the two primary components of the university’s mission—creating a university community that is racially, ethnically, and economically diverse and becoming the leader among its peer institutions—has the potential to be in conflict, given the challenges of the current economy, the high tuition cost of the university, and its present place in the marketplace. The institution has benefited from the financial model of a large percentage of its students paying full tuition— a model that leadership believes is not sustainable in the long-term. The university is actively seeking alternate sources of revenue and ways of “doing business.” Whether those alternate revenue streams and new approaches to the university’s traditional values and processes will be successful and/or sufficient to sustain its commitment to the dual components of its mission is yet to be seen.

Persistence and Graduation at University C

Although the graduation rates of Latino and African American students at University C—reported in IPEDS in 2009—were above the median of the data set at 87% and 88%, respectively, administrators at the university believe that: (a) graduation rates should be above the 90th percentile for the institution to be considered the top in its peer
group, and (b) recent retention and graduation rates have declined since implementing the financial aid policy of meeting full need. The President discussed his concerns:

So I may be naïve, but my guess is that one of the things that we saw really before we began to feel the effects of meeting full need was that the minority students who were here were fairly well to do … Now, I think that we do see greater socio-economic diversity. And I think that with some of the underrepresented groups [there were] academic challenges and not really knowing where to go and how to address them. That really kind of discouraged them greatly. And that’s where we lost ground in terms of graduation rate and retention.

Many of the leaders interviewed commented that they believe that the university’s approach to meeting full need has encouraged graduation and retention of all students—including Latino and African American students. According to those interviewed, the financial aid practice at University C: (a) affords students the opportunity to focus on their academic studies without working long hours; (b) allows for adjustments to be made to the student’s financial aid package if the personal or family contribution cannot be met; (c) adjusts financial aid to keep pace with increases in tuition costs; and (d) is a financial aid package that would be difficult to duplicate if the student wanted to transfer and thus encourages the student to persist at the university. The president commented that the university had made strides in creating support systems:

We did an outreach—on reunion weekend—we did a special reception for [African American] alumni. And what I could tell them was that it’s not a bed of roses for the students of color who are at [University C], but they do like it and enjoy it….But the structures are in place for them to figure out what to do—where to get support. (President)

However, the President and the Director of Financial aid noted that the environment at University C has historically been challenging for students of color. The president commented that although underrepresented minority students are pleased with
the academic experience at University C, the environment continues to be one that is not ideal for Latino and African American students.

I think of one alumnus in particular … And she came to see me and she told me that she’s very grateful for the education she received at [University C]. She thought it was excellent, but that she hated every minute of it. And she felt as an African American person that she was isolated—that it was a hostile environment…. I’ve had that repeated any number of times.

All those interviewed indicated that they believed University C’s financial aid policy of meeting full need important to achieve the high persistence and graduation rates of underrepresented minority students at the institution. However, none of those interviewed asserted that current financial aid practice alone was responsible for strong performance in this area. Systems have been put in place to support students of color and low-income students at University C—systems that leadership suggests have been effective and systems that the university is committed to retaining in the long term, and students are generally well-prepared academically when admitted.

As the university evaluates its capacity to continue to meet full financial need for students and considers alternative practice, the potential impact of a change in the policy on persistence and graduation will need to be weighed. Should the university move away from funding full student need and embrace a different methodology for awarding institutional aid, it will need to monitor closely changes in retention and graduation rates of low-income and Latino and African American students to ensure that such shifts do not negatively impact on underrepresented minority student persistence.

It is early in the decision-making phase to be able to predict how University C will manage a transition in its financial aid policy away from full need—whether the institution will gap all students or manage those students with the highest need out of the
enrollment process in order to meet need at a high level for others – are potential options.

Although the university has choices to make, its alternatives are not vast given its financial model and institutional mission.

University C has achieved what the President and his Cabinet set out to do five years ago when they implemented the financial aid policy of meeting full student need, even defined as conservatively as it is at the university. The institution increased its student racial, ethnic, and socio-economic diversity and created a multi-cultural environment that has, according to the leadership, enhanced the educational experience of the institution’s students. Faced with external economic challenges, the university has been forced to rethink its financial aid practice. Within the context of the experience of University C, some of those interviewed commented on the trials to funding higher education in terms of national priorities and changing demographics:

I just feel that we are destined to become a second class nation unless we change the way that we think about higher education. And I mean, I don’t know what the situation is today, because obviously all of the stuff that’s going on in Europe, but we have a program [with a university in Europe] and the students that go there are heavily, heavily subsidized. They’re maybe paying $1,000 or $1,500 or maybe it’s $5,000, but it’s much, much less than our students. But those kind of commitments it seems to me recognize that higher education is not simply a personal good. It’s a social good. It’s a good thing for the country…And so as long as you keep thinking that well, there’s really no social investment. There are minimal social investments, and it’s really for your personal good, then we’re not going to invest in it. And it’s going to be the consumer who either has to have inferior education or no tertiary education. (President)

Senior leaders at University C are faced with critical decisions as they work to protect the strides that they have made in educating a diverse student population in a challenging economic environment. Leadership recognizes that it will need to assess
future plans for its financial aid policy in light of these dynamics and in light of the university’s goal to move up in national reputation.

Conclusion

While there is broad support for the components of the university’s mission—a diverse learning environment and the aspiration to be the best university in its peer group—there is also recognition that economic challenges may make the balancing of these components, at least in terms of how they are currently being managed through meeting full financial need, unfeasible. University C’s culture and leadership encourage decisions to be made collaboratively as evidenced in the major planning and budgeting processes that exist at the university and involve large numbers of faculty, senior administrators, and undergraduate and graduate students.

University C’s leadership, particularly the President and the Dean of Enrollment management have led the institution to create a financial aid policy that meets student need at a high level and, in so doing, has achieved a diverse racial, socio-economic, and ethnic university community that successfully graduates underrepresented minority students at a high level. As senior leaders spoke of how decisions would be made around evaluation of and potential changes to the university’s financial aid policy, each indicated that many administrators and faculty would be involved, and that the university community would grapple with the issues in the context of its mission and its financial model as is its practice.
CHAPTER 8
RETHINKING MISSION

University D was chosen for participation in this research project as an institution that met student financial need near the median of the populations examined, a subset of private, non-profit four colleges and universities that reported financial aid practices through the Common Data Set. The university graduated Latino and African American students at a rate below the average of private, nonprofit four-year colleges and universities in the United States.

Sponsored by a Roman Catholic religious order whose mission it is to educate poor and working-class students, University D is one of a number of such sponsored universities in the United States. One hundred years old, University D is a multi-campus university with two main campuses and a number of satellite locations. One of the institution’s two primary campuses is its traditional liberal arts campus, which houses approximately 1,400 residential students and is located in a rural environment. The university’s other major campus is located in a city about 150 miles from the residential campus. There, bachelor’s degree completion programs and master’s and doctoral degrees are offered for more than 4,000 students. The university also offers academic programs in other cities in the state in which it resides and in cities in surrounding states. It provides degrees at two international sites, one in the Caribbean and one in Africa.

University D’s budget is $80 million and its endowment is $45 million. According to participants interviewed as part of this case study, the university budgets conservatively; some described the climate as “frugal.” That fiscal conservatism served University D well during the economic recession of 2008-2009, when the university
experienced a decline in enrollment and a reduction in its endowment by almost 25%. The university froze salaries for one year and moved forward with selective building projects, but there was no reduction in work force or other measures taken during the recession years. Institutional frugality, some said, has resulted in a lack of imaginative response to institutional needs. One example cited was building initiatives. The university is currently in the process of building a residence hall; however, other building projects—most notably a planned science center—have not been undertaken. The CFO and Provost commented that there was frustration on campus about this and that some faculty and staff believed that the lack of such a facility is limiting the institution’s ability to compete with other institutions recruiting for the same population of students.

University D has one of the lowest tuition rates of any of the private institutions in the state in which it resides. For both the traditional liberal arts program at its rural campus and the professional programs on its urban campus, the institution has held tuition costs low in a commitment to accessibility and affordability. The ability to raise tuition is now hampered not only by the university’s philosophy, according to the President, but also by an economic environment in which tuition increases are generally being kept low.

The student population at University D has shifted in recent years. Similar to the student populations of other universities in this study, the affluence of University D’s student body has declined since the recession of 2008-09:

We went from having less than 19% of our students be Pell eligible to 24% [and] to 34% this year…And that’s up from 2009, [when] we had much more affluent populations of families that could help pay for our institution…So we’re seeing that we’re having larger and larger needs of families. (Director of Financial Aid)
Presently, approximately 94% of the undergraduate student body—both students in the traditional undergraduate program on the residential campus and those in degree completion programs at the urban campus—receive financial aid. It was reported that students who paid the full cost of tuition at the rural campus were “between one and two percent,” while those who paid the full cost of tuition at the urban campus were approximately 95%. University D’s business model is similar to University A’s model as both universities have created “high margin” graduate and degree completion programs and the funding from those programs underwrites the traditional undergraduate college—including providing support for financial aid. University D’s tuition discount rate was approximately 42% overall and about 50% for incoming students for Fall 2012, the highest among the four universities in this study. Managing issues of enrollment, financial aid, and diversity at the two campuses in a manner that is consistent with the university’s mission of providing high quality education to the poor and working class is critical to the university’s leadership.

Mission at the Crossroads

The role of mission in the life of University D is integrally linked to the mission of the founding religious order: to educate the poor and working class. Each administrator interviewed discussed the mission at some length, and all commented that mission and decision-making at the institution were fundamentally connected. One administrator described the mission as being held “sacred” and “as a guidepost for the things we do”; another noted that “the mission piece is huge,” and yet another stated that the university is “focused” on the tradition and commitment of the founding order.
However, interpretation of how the university’s mission should be realized relative to enrollment and financial aid practice is not agreed upon by all members of the senior leadership team. Two themes emerged in the interviews: (a) the university’s ability to continue to meet its stated mission the same way it has historically—by holding tuition costs comparatively low while meeting need at the level it has—and (b) whether providing access to education at the university to poor and working-class students without fully meeting need is a practice that should be continued. Similar to the other universities in this study, the university’s mission of recruiting poor and working-class students has been challenged recently. The university is currently attempting to determine how to meet its mission obligations in a fiscal environment that has negatively impacted on its endowment and altered the socioeconomic composition of the student body. Balancing the mission of both the university and the founding religious order—of outreach to the poor and working class—with the resources required to underwrite a high quality education is central to this President:

I have to find the money that makes it possible for the working class and the poor to have access and the support that they need to succeed. That’s very difficult—and both of those are at the crux, it seems to me, of the transition that we’re in right now: that without those two [access and support] we would no longer be who we are as an institution. (President)

According to the Dean of Enrollment, University D saw a decline in enrollment in 2009 that has since been corrected. However, as the quote from the Director of Financial Aid above indicates, the students who have been recruited in the last few years are poorer and have more financial need. Balancing the mission of outreach to poor and working-class families without meeting full need is a concern to administrators at University D:

Sometimes our mission—in trying to help everyone—we end up accepting students that aren’t able to be truly successful and they end up incurring these
debts that they can’t pay. So, while [admissions officers] are out there and truly trying to recruit these students and really want them here, we don’t always have the means of funding them completely through four years or five years, if that’s what it ends up taking them. So sometimes I feel we get [low-income students] here…, but it’s just beyond what they’re able to afford— (Director of Financial Aid)

The [religious order’s commitment] is education for all, and how do you do that? From my position it’s extremely hard, because I may have a student who came and thought they could afford it and can’t. We have to talk to the student and ask them to leave or not show up for next semester because they can’t pay their bill … We also have to develop policies that students have to abide by; sometimes that means a student can’t return because they can’t afford it. We make a lot of exceptions and work with students. I always say to them, “If I’m just getting $25 a month I know you’re really making an effort,” and we’ll work with them. If there’s no way they can do it at all, then I have to say, “You can’t come back.” (Chief Financial Officer)

In response to the question of how the mission of University D will be met in the future, the President has engaged the university in a strategic planning process, embarked on a new approach to financial aid leveraging, built the endowment back to pre-recession levels, and implemented a scholarship program targeted to underrepresented minority students. These initiatives may alter the university’s current course from one of broad-based outreach to the poor and working class to one that is more limited, but perhaps more comprehensive, for example that fewer poor and minority students might be admitted but they would be more fully supported financially and programmatically.

Leadership and Planning at University D

Leadership at University D has undergone a number of transitions over the last decade. The current President has been in the position for less than five years. He follows a short-term President (less than two years) who left amid controversy. That President was preceded by a President who had served for more than 21 years. The current President, who had not held a cabinet-level academic position prior to his present
appointment, is a member of the religious community that sponsors the university. His primary experience in higher education prior to his appointment as President was as a trustee of several universities. He acknowledges his limited background in overseeing a university, but believes that coming from the outside allows him to question long-established processes and activities—an advantage, he asserts, given the present rapid pace of change in higher education. He is clear that any changes made to the organization through the institution’s strategic plan or by administrative fiat must be done in the context of the university’s mission and the mission of the founding religious order.

The President talks openly about the challenges he faces with an institution that has not reviewed its operating approach for more than a decade, is highly tuition-dependent, and has limited resources from endowment and fundraising. Under the direction of the President who led the university for more than two decades and departed around 2004, University D established its urban campus, creating two very different educational and business models under one university structure that have existed simultaneously but separately. The President characterizes the urban campus as “a completely different school” from the college located on the rural campus. This difference is reflected in the organizational structure. There are two different academic vice presidents at the university; one oversees the urban campus and the other leads academic affairs at the residential college. Recruitment for the two campuses is entirely separate, with program directors at the urban campus managing this function and, at the residential college, an enrollment-management office directing admissions. Although overseen by one Vice President, separate marketing and external relations offices support the outreach efforts of each campus. The President splits his time between the two
campuses, driving 140 miles each way weekly. During his tenure of less than five years, the President has recruited senior leadership. He has hired a number of new team members, including the Dean of Enrollment, the Provost for the college, and the Chief Advancement Officer, all of whom had been in their positions for less than two years when they were interviewed for this case study in 2012.

The combination of transition in presidential leadership and no strategic plan has resulted in University D’s working off a financial model that was created almost 30 years ago—one that, until recently, enabled the university to meet its mission obligations of outreach to the poor and working class. Recognizing the entrepreneurial nature of the university’s urban campus when it was established and its role in generating resources for the institution, the President noted that a review of its current efficacy was important for the university’s future, “[It] was tremendously successful—in many ways provided significant revenue…But, I mean, now you’re 26-28 years out and the competition and the model—a lot of people are following that model.”

The amalgamation of: (a) a more competitive environment in which to recruit both traditional and nontraditional students, (b) the university’s approach of providing accessibility and affordability through comparatively low tuition pricing, (3) the shift to a more needy student population, and (d) a low endowment with minimal fundraising has had the collective impact of severely limiting University D’s options to develop and grow the university and to provide financial aid resources to its student population. University leadership acknowledges that effectively managing the university going forward, including reviewing the present approach to financial aid may require philosophical and
structural changes to the organization to enable it to be more competitive in its multiple marketplaces.

The university’s last strategic plan ended in 2002, and it has since operated without one. A year-long planning process was being completed when I was on campus to conduct interviews for this case study in April 2012. At that time, based on the conversations I had with university leadership, the planning, although inclusive, appeared disjointed—reflecting, perhaps, the nature of the organization itself at this time in its history. The process was described by a number of those interviewed as comprehensive and purposefully far-reaching, involving faculty and staff from both of the principal campuses. The need to include many—given the long time that the institution had gone without a plan—was acknowledged by the President and other senior leaders. The President lauded the inclusiveness of the planning process, which involved more than 900 faculty, staff, students, alumni, and friends, but he and other administrators interviewed expressed apprehension about a lack of attention to external threats, including increasingly competitive marketplaces for both traditional and nontraditional students and a lack of projections for future enrollment and endowment.

Interviewees reported that the planning process was an opportunity to engage the university community in high-level discussions of the university’s mission, historic approach to student outreach and financial aid, and institutional viability, but that little concrete analysis of enrollment and financial aid patterns was included in the process:

We went into one of our meetings—and we’ve been meeting a lot—and there’s no mention about what our enrollment numbers were going to be for the future or even endowment. So we’re able to raise that and I think we have to put a number out there and then we have to model it. But I mean, what I hear all the time is, “Well, this is just where we’re at.” (Chief Fundraising Officer)
We’ve gone up dollar-wise [in allocations of financial aid]; we probably doubled the actual dollars being used. Percentage-wise, we’ve probably gone from 34 to 42[\%] over the last five to six years [in tuition discounting]… So that’s a concern to us and something that our board talks about, the President and cabinet talk about. We’ve been talking a lot about it in our strategic planning, about how do we continue this every time [we raise] tuition? Of course, the need becomes greater, so the amount you need to fund is higher; that contributes to it. We know it’s not going to go down very easily. The other thing that contributes …to it is competition, because students and parents are often involved in looking around.

(Chief Financial Officer)

The President also indicated that the planning process, while comprehensively involving members of the university community and engaging the community in broad discussion of critical issues, had not, as of late April 2012, generated a document with the enrollment or financial-aid projections that he felt were necessary for a plan that would guide the university through the next five years. He indicated that prior to submission of the plan to the Board of Trustees, he and his cabinet would have to address those issues:

Being respectful of everything [completed in the planning process], but also turning [the plan] into something that’s going to move us forward. So that’s actually where we’re banging around now. I mean, it’s really saying, “What does the composition of the student body have to look like? What are the metrics of what that’s going to look like? And what kind of financial aid has to be part of that?” And so that’s exactly where we are right now—trying to sift through that. And it’s complex.

The plan, approved by the Board of Trustees of University D in May 2012 and disseminated to the public on the university’s website, reaffirms the institution’s commitment to its mission and identity by making mission one of the three key themes that make up the plan. The other two themes address growth and innovation and management of resources in support of institutional stability. The published plan gives a nod to the university community’s discussion of financial aid support for students, specifically highlighting the importance of managing student financial aid and the
discount rate in the context of managing institutional resources generally. The objective
to “sustain a commitment to student affordability and accessibility” is found under the
goal of optimizing university resources in the institutional-stability theme rather than
under the mission theme, signaling, perhaps, a shift in the university’s thinking about
mission and financial aid.

Enrollment plays heavily in the final plan, with a series of objectives that commit
to increasing admission in programs on both campuses and identifying potential new
academic programs in which to enroll new students. The introduction of the plan
indicates, however, that identification and attainment of new enrollment targets will be
required for the plan to successfully move the university forward. In a follow-up
conversation, the Dean of Enrollment indicated that the development of enrollment
targets was not included in the strategic plan as the President had hoped.

University D’s planning process—inclusive, but devoid of specific plans for
managing the key issues at the university—in some ways mirrors the current culture of
the university: hierarchical in nature, with much decision-making made at the level of the
President and a few key vice presidents, but collegial in terms of universal commitment
to the mission of the institution and the founding order. There is broad-based discussion
of and commitment to the general precepts of the institution’s mission, but the university
has not had a formalized mechanism for ongoing planning that could involve the broader
university community in decision-making regarding mission and financial aid. In this
time of economic downturn and increasingly competitive marketplaces, the dearth of
planning and the relatively recent transitions—including hiring a President with limited
experience in higher education—has left University D less prepared than the other
Diversity and Retention

The IPEDS data from 2009 indicated that approximately 7% of University D’s student population was underrepresented minority students. Senior leaders interviewed noted that the population of the rural campus had historically been far less diverse than the student body at the urban campus, as the urban campus drew students from a multicultural environment. The Dean of Enrollment discussed a recent trend upward in underrepresented minority recruitment, to 13% of the incoming freshman class for the college on the rural campus in 2011 and 2012 and credited, in part, a minority scholarship program created by the President for the increase. Establishing a more diverse university community is a goal that was supported by all of the leadership interviewed for this study. However, interviewees identified a number of challenges to recruiting and retaining Latino and African American students: the location of the campus, a faculty that is not diverse and has little experience educating students from multicultural backgrounds, and a financial aid program that does not meet full need:

I do see that that is a big issue for minority students—not having financial resources. And some of it, students are coming in not understanding all the expectations or what finances are involved in going to college. So they get here and they realize [that] …they can’t afford to take out another $10,000 every year in loans or they don’t have anyone to help cosign a loan. So part of it is, I feel, a lot [of] —some unpreparedness, financially—going to college and not understanding expectations and everything that’s involved in college costs. So I do see college expenses … being an issue with persistence of minority students. (Dean of Enrollment)

The university has undertaken a number of new initiatives to make the college campus more accommodating to a diverse student population including hiring faculty and
administrators of color, establishing a program to educate faculty in culture competence, and initiating a targeted scholarship program for underrepresented minority students.

Specifically, the Provost has hired new international faculty and two deans who are persons of color, and she is working to develop an ambiance that is culturally sensitive to students from diverse racial and socioeconomic backgrounds:

I believe that the area that we are remiss in—and maybe it’s because I’ve been so long at an HSI [Hispanic Serving Institution] that I find this to be quite alarming—is the lack of cultural competence in the faculty. And so it’s one of the areas that I’ve asked for some workshops in the fall. Because I think that there are just—it isn’t because there’s not goodwill on the part of the faculty, and that the faculty don’t really love their students, but it’s that sometimes they just don’t even know what they’re saying and how it would impact a student, because of the lack of cultural competence in terms of the faculty and staff. And I think that that’s a critical piece [for minority student retention]. (Provost)

The scholarship program initiated by the president targets Latino and African American students who have graduated from high schools in the Cristo Rey system or high schools sponsored by the religious community associated with University D. These high schools serve poor, urban students, most of whom are Latino or African American.

The president’s scholarship program provides full support for tuition and other needs:

When we did the [scholarship program]—it’s a full scholarship, but the scholarship that we give is more than the full scholarship, because it was clear when we were putting it together [that we had to ask], …“How do we bring these young people in here and make sure that they’re not unable to get home for vacations, unable to socialize, unable to have books, unable to have clothes that don’t embarrass them?” (President)

In addition to receiving substantial financial resources, students enrolled in the scholarship program set up by the president receive strong academic support services. The program currently has approximately 20 students and is in its third year of operation. To date it has seen little attrition; it was reported that one student withdrew due to health
issues and another because of a family issue. The program was initiated by the President as part of the university’s centennial celebration, and the costs of the program are underwritten by donor funds raised by a member of the sponsoring religious order. The President of University D was looking for a way to meet the institution’s mission of outreach to the poor and working class in a manner that would support students’ chances of succeeding, but he was also piloting a model with the capacity to change the university’s approach to financial aid. He noted, “It was reaching, but it was containing at the same time. But then the other part is, you know, we’re trying to work out how the working class and the poor find access and support.”

The university does not meet full need, and some administrators believe that the “gapping”—particularly of low-income minority students—has had a negative impact on student retention and graduation of that population. The scholarship program established by the president program—targeting small numbers of low-income African American and Latino students and providing them with scholarship funding in excess of full tuition, along with extensive support services—may be one way that the university achieves its mission of accessibility to people from all racial, ethnic, and socio-economic backgrounds in the future.

University D is actively working to create a more diverse student body while, at the same time, attempting to determine how best to retain and graduate all students at a higher rate. Retention and graduation of all students is a major concern on the part of university leadership and a focus of senior leadership and the strategic plan. The Provost recently revised the institution’s approach to academic student support services by bringing advising, tutoring, academic skills, disabilities, the writing center, and career
services together in one center and creating a new position—Dean of Student Success—to oversee academic student support services:

Our graduation rates are low, and it’s something this President is working on. We just hired a new active VP this year; she considers persistence and, certainly, retention as something we are all talking a lot about. We’re building a new area called “Success for Students” instead of the old “Advising.” It’s really going to be changing. But I think our overall [graduation rate] was around 50[%,] so it’s not anything we’re very proud of. It is something we know we need to work on more. Some of the graduation rates have been because of financial [issues], and that’s tough for us. (Chief Financial Officer)

On the question of what is the role of financial aid in persistence and graduation of minority students, there was a clear divide between academic and financial administrators. The Provost acknowledged that financial aid might play a role in student persistence, but believed that the retention of Latino and African American students was tied more to student support services than to financial aid:

It can’t only be financial aid. It really has to be about services. The support of all students, whether they’re minority students or whether they are majority students, it’s got to be the services that we’re providing for them to be successful. …So by having a Dean of Student Success sitting with the academic dean—we can do is begin to coordinate … the things that are happening.

The President concurred, reporting that the university had a history of creating a supportive environment in which faculty and students develop strong relationships. He pointed to NSSE (National Survey of Student Engagement) data that indicated that University D was “top in the state” for its supportive campus environment and for positive relationships between faculty and students. He noted, too, the recognition that University D had received for successfully encouraging African American and Latino students to go on to graduate school in STEM (science, technology, engineering, and mathematics) disciplines:
December 2010 - I was surprised when [Magazine X] published the list of 10 places where women and 10 places where minorities—Black or Latino—are succeeding in more significant numbers, and they had us in the minority [group] as number one. And I said, “We don’t have that many minorities.” But I think what they were saying is for STEM studies—if a minority kid studies here, they are X percent more likely [to succeed]” … but I think it’s about relationships.

The Dean of Enrollment, Chief Financial Officer, and Director of Financial Aid all spoke hopefully of the initiatives being put in place by the Provost, but indicated that funding students at a level that leaves “gaps” in student need has had a negative impact on Latino and African American student persistence in the past. The Director of Financial Aid remarked:

> We lose a lot of students after that first year because of their balances. They have no way of paying those. I’m not sure if there’s a language barrier between the student [who] can speak English well and the families that can’t. So when they get this award letter and it says that we’re giving them $28,000—but we have a $34,000 billed cost—…some of them may think that they can do it. They don’t realize they have to buy books on top of that. They actually have to work to earn about $1,500 of that award. They’re all of a sudden realizing they owe $6,000 and have no way of coming up with those funds.

Pressure to increase retention and graduation rates has the potential to alter the current profile of University D’s student population, both academically and financially. The Dean of Enrollment reported that a committee formed to make recommendations to improve the graduation rate is working with admissions “to ensure we’re working on strategies to recruit students that are going to graduate.” She notes:

> Persistence and graduation rates are a concern in general here at [University D]. I think understanding our academic profile … is a key into the whole picture. We do have a lower average ACT and GPA than some of our competitors because we bring in some students—through the PASS program [student support program], for example— … I think there’s a question of us looking at the students that are admitted into PASS and sometimes in the past … maybe we’ve taken a risk, a little bit too much of a risk on some students. So maybe having a little bit higher requirements for that program [would help].
University D’s mission of providing education to the poor and working class is evident in the institution’s enrollment practices. Students with academic profiles that competitor institutions would consider “at risk” have been recruited and enrolled, with varied results. The institution has had some notable success in graduating Latino and African American students who go on to graduate work in STEM fields, but its overall graduation rates for underrepresented minorities are considerably below the median for other private, nonprofit, four-year colleges in the United States. As it works to both improve campus diversity and boost graduation rates in an environment in which the university must increase its financial stability, University D will need to address whether it can continue its historic outreach in the same manner it has in the past. Its uneven success does not provide clear guidance, and its leadership appears divided on the role of financial aid support in retaining and graduating students.

Access and Affordability at University D

University D’s approach to access and affordability has been to (a) maintain tuition at comparatively low levels for private institutions in its competitor group, (b) meet need at the average of the private institutions reporting on need met, and (c) focus institutional aid primarily on support of needy students. The university’s practice of outreach to a population of poor and working-class students has taxed its resources, particularly since the recession of 2008-2009, when there was a shift in the student population toward students of higher need.

It is in this environment that the university is examining its financial aid practice and making decisions about how it will utilize institutional aid to assure financial stability.
and further the university’s mission. Selected university leaders and the Board of

Trustees have monitored financial aid practice for some time, notes the CFO:

Yes, per-student [net tuition] has been increasing, and overall net [tuition] has slightly—very slowly, but it is continuing to go up. …One thing is, the [prior] President [who served for two decades] developed a chart with me and my financial analyst many years ago—probably 15 years ago. We started using a net tuition chart and we started using it with our faculty to let them know what was happening at the time, because that’s really when all the financial aid dollars started increasing significantly. We first educated internally, and then as the board started asking more questions we started producing this chart. (Chief Financial Officer)

University D provides some limited merit awards to students without demonstrated need, but institutional aid to meet student need has figured prominently in the institution’s financial aid practice to date. The Dean of Enrollment reported that almost all of the university’s aid budget is directed to students of need. Although the university meets students need at a substantial level, it does not meet full need and gaps students.

Some schools meet 100% of need—but they evaluate the student’s need before the admission decision is made. We’re need-blind, so we don’t meet 100% of need. … We do have a high percentage of meeting a student’s financial need, but there are other schools out there that are 100% need-based. Since we try to be open to all, we try to spread the financial resources to the best ability that we have. And so we do gap students. (Dean of Enrollment)

Conversely, not offering more merit awards to students without demonstrated need has, potentially, affected the enrollment of students with more able to pay:

The affluent today expect to get acknowledgement and scholarships…so it’s not just saying, “Well, you don’t all need it.”…Yeah, you don’t need it, but you still [expect it]. …So how do [we] start looking at some of those profiles and try to figure out—…and that’s where I’m weighing, in trying to say, “Don’t get crazy going one way or another.” This isn’t just about, “Let’s pursue the GPAs or let’s pursue the ACTs,” … And yet, if we don’t have an academically attractive profile, then access doesn’t necessarily mean anything to the people that you’re trying to make a place for in terms of affordability. (President)
University leadership is not of one mind about the best approach to financial aid practice at University D. The President, the Provost and Chief Financial Officer, as well as members of the Board of Trustees are concerned with the accelerating tuition discount rate, particularly given the institution’s tuition dependence and comparatively low tuition rates. Other administrative leaders believe that the tuition discount rate will continue to rise, and as long as net tuition increases, even slowly, there is little reason for apprehension.

The President and his senior administration are strongly and recently focused on enrollment and financial aid practices in an active manner. The university is reconsidering how best to leverage financial aid consistent with both the university’s mission and the need for institutional stability, and has hired a new financial aid consulting firm to assist in its financial aid practices. Decisions about the direction of financial aid practice are now being made at the top of the organization’s structure. Leadership has been involved in both choosing the financial aid consultants and in determining the matrix for financial aid leveraging, providing guidance on the general direction of the university’s financial aid practice and overseeing its implementation:

On a weekly basis we have a meeting with our financial-aid consultant to review where we’re at with financial aid spending and where we’re at with students in our cell matrix. The Vice President of the College attends those, along with the Vice President of Finance, along with myself, the Director of Admissions, and Director of Financial Aid. So having the two Vice Presidents attend those weekly meetings, to me—it shows that there’s top support for…not just to support how we use financial aid resources to support students, but it’s also ensuring that we keep financial aid in check a little bit to make sure that—because there is a concern to have a healthy discount rate while increasing the tuition revenue. (Dean of Enrollment)

Although there are different opinions and levels of concern among senior leaders about the university’s tuition discount rate, the administrators interviewed agreed that the
percentage of the budget devoted to financial aid meant that other institutional priorities were often deferred or managed in a less than ideal manner:

Now when we’re putting a lot of money toward financial aid in the way that we’re doing, and as I’m sitting in budget meetings thinking about next year, it means we’re not bringing in a lot of new positions. It means that our staff is very lean….In 2008, there were a number of positions that through attrition were lost, that were not put back into the budgets yet. So they’re still considered new positions, they’re not considered a replacement. So we’re still gradually beginning to get back up to what I would call full strength. (Provost)

If the funds are going there [financial aid] it means they can’t go into education, academic [programs], technology, and into the things that are going to make us stronger from the academic side. That’s something that’s very, very difficult for us. I’m sure if we compared our salaries with some of the other schools that are more heavily endowed we’re going to be lower. We don’t have the facilities that many of them are able to have. We’ve been talking about a new science building here for probably six or seven years. We’ve been trying to do things in a conservative way, and that leads to not having the same kind of facilities that a [competitor university] has. So that is difficult for us and something we’re always concerned about. (Chief Financial Officer)

The President noted that the question before the university as it reviews financial aid practice is: “What does the composition of the student body have to look like?”

However, this one question requires the university to make decisions about financial aid and enrollment practices, specifically whether to: (a) recruit more students with ability to pay and fewer poor and working-class students, even though the university’s mission is explicit in this regard; (b) shift institutional aid from primarily need-based support to include more merit awards in order to recruit wealthier students; (c) meet need at a higher level and gap students at a lower level and—potentially—increase retention and graduation rates, particularly for Latino and African American students; (d) focus outreach to low-income minority students through the scholarship program established by the president, thus limiting outreach but ensuring a comprehensive level of support.

These intertwined decisions, fundamental to the future of the university, are ones that
University D will need to address as it evolves a financial aid and enrollment policy that reflects the university’s historic mission, present place in the marketplace, and expectations for long-term viability.

University D is working to overcome a decade in which the institution survived, but did not thrive. Leadership shifted during this time, and a lack of strategic planning meant that the university was guided by a financial model that had been successful for 30 years, but was being emulated and challenged by other higher education institutions in the region. Add to these realities poor fundraising, a low endowment, and the worst economic crisis since the Great Depression, and it is understandable that university leaders are concerned about how the institution can and should best move forward. When asked about general concerns about the institution’s financial aid policy in particular or the funding of higher education in general, a number of themes emerged: the ability of University D to fund high levels of aid and continue to offer high quality education, whether the present model was sustainable for most private institutions, and the role that state and federal funding would play in the future:

I think right now, because higher education is so much in Obama’s discussions, we don’t have to worry in the short term [about federal funding]. I do worry about the federal level in the long-term and certainly the state level. …We’ve not seen that change at all [state tuition grant]…I want to say the state grant alone is over $1 million, so that’s a lot of money for us and for our students. It certainly could change accessibility for [students] if they did not have that, and then would we be able to make it up again from our budget? (Chief Financial Officer)

Conclusion

Although it does not appear that University D has a substantive culture of planning, including planning for enrollment and financial aid, the President is encouraging his newly formed team to move in that direction, and recently engaged the
university community in a planning process with limited success. It is possible that as senior leadership works together for a longer period, it will evolve into a stronger team, but at present there is little evidence that the institution has strong planning processes coordinating financial and mission objectives as seen in Universities A and C in this study. Nor is there a coordinated management team, as evidenced at University B capable of addressing the complex question of how to balance institutional mission and the university’s financial model. I observed, however, a strong institution-wide commitment to the mission of enrollment, retention, and graduation of low-income and middle income students that has historically been tied both to the university and the religious order that sponsors the university. A commitment to enroll, retain, and graduate underrepresented minority students has been made under the leadership of the current president at University D.

Espoused and enacted mission are closely aligned at University D. Reviewed documents, from the university’s website to the recent strategic plan, powerfully articulate the commitment of the institution to the service of poor and working-class students; all of those interviewed spoke extensively of the mission; and the underlying assumptions apparent in the university’s plan for its future show a commitment to that mission. The university, led by a President devoted to the mission of both the university and its sponsoring religious order, is grappling with how to affirm that mission in the face of a difficult economy, changing student population, competition in the marketplace, and the national attainment agenda. He has neither the advantage of an integrated planning process nor a senior leadership team that has worked together to address the issue of
strategically balancing mission in the midst of changing and challenging economic and market dynamics.

Increasing graduation rates of all students— including underrepresented minority students—is a focus of University D’s new Provost, and there is hope and expectation on campus that the initiatives she has launched will be successful. However, there is not widespread agreement on the role of financial aid in persistence, particularly of low-income, minority students. The university has created a new program that has the potential to be the model for how the institution moves forward in recruiting and enrolling this student population: (a) recruiting fewer students with high need, but providing more comprehensive financial and support resources with the expectation that this approach will result in better persistence and higher graduation rates; and (b) funding student support through donations rather than institutional aid.

University D seeks to address its clear mission mandate of outreach to low and middle income families and increased diversity while achieving long-term financial stability. There is broad commitment to the mission of the university and the founding order at University D. Although it is unlikely that the past practice of broad outreach to poor and working-class students will continue in the same manner that it has, it is clear that leadership at the institution will work to retain the university’s core commitment to populations of students traditionally underrepresented in higher education managing within a small set of choices that the institution has to both achieve mission and remain viable.
CHAPTER 9
VARIED CIRCUMSTANCES: COMMON CHALLENGES

The quantitative analyses provided a framework for the qualitative examination of financial aid practices at four selected private, non-profit, four-year colleges and universities. The interviews at these institutions offered an opportunity to delve into how institutions make decisions around financial aid, the role of mission in making decisions, and the processes for establishing priorities and direction particularly around the issues of meeting need and allocating institutional resources to students with demonstrated need. Although the institutions varied by geography, available resources, and success in graduating minority students there were many similarities with regard to challenges faced and how the universities made decisions around enrollment and financial aid practice.

The four selected case study universities varied both in the percentage of student need that they met and in the graduation rates of Latino and African American students. Figure 9 illustrates where these four universities were situated relative to other medium-size private, nonprofit colleges and universities in terms of graduation rates of underrepresented minority students and the percentage of need that the institutions were meeting. One institution met full need, another met need at approximately 65%, and two others were close to the mean at 75% and 77%. Two graduated African American and Latino students above the median and two graduated these student populations below the median. Three of the four universities in this research project had long histories of educating nontraditional student populations – either immigrant, adult, or low-income. The fourth—University C—was a traditional liberal arts institution from its founding.
However, for all four of the institutions, founding histories and/or connections to religious orders with social justice orientations influenced how the universities approached financial aid practice. The topic of enrollment and financial aid policy and how that policy intersected with institutional mission was central to long-term planning and day-to-day operations of each of the participant universities. Each of the four presidents spoke of the need to maintain an institutional commitment to diversity and access for low-income students, and each articulated how that commitment was becoming increasingly difficult to uphold in a changing economic environment.

Mission and Tuition Dependence

The four institutions studied are tuition dependent—all reported that more than 80% of their operating budgets were funded with tuition, fees, and auxiliary expenses affiliated with enrollment (e.g. housing and book store). Funds from endowment, fundraising, and research grants played a limited role at these four universities and contributed only a small percentage of funding to the institutions’ operating budgets. University B and University C have a sizeable percentage of “full pay” undergraduate students—25% and 40% respectively. University A and University D reported that between 1% and 5% of their traditional undergraduate student bodies pay the full cost of tuition. The business model for University B and University C, with substantial percentages of full pay students, differs from the business model at Universities A and D that do not have that revenue stream. Universities A and D, with fewer full-pay undergraduate students, are particularly dependent on market-sensitive graduate and degree completion programs that are “high margin”—they produce substantial revenue relative to their cost to operate—to fund university operations.
The considerable dependence on tuition at these universities was a driver for decision-making around issues of mission and financial aid. Leadership at each of the universities spoke broadly of their limitations in advancing the missions of their institutions because of dependence on student tuition and the necessity of striking a balance between institutional viability and upholding the mission of inclusion of underrepresented populations.

All four of the universities in this research study employed financial aid leveraging — predictive modeling used to determine the effective distribution of financial aid the objective of which is to meet institutional enrollment priorities and generate net revenue. Two institutions — University A and University C — had sophisticated enrollment management offices that had been using financial aid leveraging for many years, University B enrolled its first class using financial aid leveraging in fall 2012, and University D was in transition to a new enrollment management firm. In every case, top leadership was involved in creating the parameters around which financial aid would be distributed within the framework of the leveraging matrix. In each instance meeting student need was considered a priority—and the model was created with room to recruit and fund low-income students rather than exclusively enrolling students without need who had the ability to pay. Leadership at University B and University C reported that they had a substantial percentage of students in their recruitment pool capable of paying all or most of the universities’ tuition costs, but managed their leveraging process to include low-income and underrepresented minority students. University A and University D had a recruitment pool that was considerably poorer according to the
Director of Financial Aid and the Dean of Enrollment (respectively), but they also had students in the pool who had more capability to pay the cost of tuition.

None of these institutions wanted to move away from recruiting and supporting low-income and minority students, but all indicated that they felt pressure from their boards to maintain financial aid allocations at the present level or to lower the level of aid disbursed. All of the universities noted that their financial aid allocations had risen substantially in the prior decade, and especially after the recession of 2008-2009.

Operating in a Post-Recession Environment

Interviewees at all of the universities studied noted that beginning in 2009 and continuing through 2012 they had seen both dramatic increases in appeals for additional financial aid from enrolled students and fewer prospective students with the capability to pay all or most of the tuition costs. Financial aid directors at all of the universities studied described an environment in which appeals for financial aid beyond initially awarded aid packages were commonplace in the years since the recent recession. They asserted that the rise in financial aid appeals was the result of loss of employment of parents and loss of equity in homes and businesses. Representatives at each of the universities studied pointed to a weak economy as one of the principal reasons for the increase in financial need among students. The experience of these institutions reflects the recession and post-recession economy of the United States characterized by a high rate of job loss, a slow rate of recovery, and considerable loss of equity and personal wealth.

This study suggests that the recession of 2008-2009 has affected the financing of higher education in the demand for more financial support for students. The “Great
Recession” has impacted the economy more deeply than any recent previous recession (Farber, 2011). Job loss in the 2008-2009 recession was high and widespread: 16% in 2008 compared to 13% in the last economic downturn in the 1980s. Recovery has been slower than previous recessions as evidenced by both the percentage of full-time employees laid off during the 2008 recession who have returned to work and the loss of earnings among the re-employed. Only 37.6 percent of full-time employees who lost jobs between 2007 and 2009 were employed full-time in January 2011 and earnings were more negatively impacted in the recession of 2008-2009 than in prior recessions. Those who lost full-time employment in the most recent recession and were re-employed earned, on average, 21.8 percent under what they had been in their previous employment, a decline more substantial than any in a prior recession (2011, p. 3).

Between 2007 and 2010, average inflation-adjusted income declined for all income groups in the United States with the exception of those in the top 20%, for which income rose by 7%. African American and Latino families were particularly affected: as of 2011 median income for these populations was less than 60% of White median incomes (College Board Advocacy and Policy Center, 2012b). The value of homes—the most substantial asset for most Americans—has declined with net home equity down 40%—approximately $5 trillion from 2005 as of January 2013 (Federal Reserve System, 2013)

The loss of employment and real net worth resulting from the recession of 2008-2009 and post-recession economy has created an economic environment in which fewer families have the capability to pay all or most of the cost of tuition at private colleges and universities, and more enrolled students have greater financial need. All four of the
institutions researched described dramatic increases in the number of their students who were Pell eligible. The experience of these universities mirrors that of the country. While the growth of undergraduates increased on average 2% annually over the last decade, 3% in the latter half of the decade, the growth of students who received Pell grants was 4% annually and 13% over the second half of the decade. Approximately 37% of the undergraduates in the United States received a Pell grant in 2011-12 up from 24% in 2006-07 (College Board Advocacy and Policy Center, 2012).

Similarly, the erosion of state support of higher education is real for both public and private, nonprofit institutions. Between 1999 and 2009 there was, on average, a 23% decline in the dollars allocated to private institutions by states (either directly or through student tuition grants) (GAO, 2012). All of the universities in this study were in states that had a tuition grant program that allowed the student to take his or her grant to any in-state university. One of those universities felt that funding for the state grant program was secure and did not worry about funding the costs of that program if the state allocation should be reduced or eliminated. The other universities had seen changes in the level of support students received from state tuition grants or shifts in who was eligible to receive funding since the recent recession. These universities were planning for a time when state resources for low-income students would be eliminated, and the resultant unmet financial need would have to be met in another manner.

Although increases in tuition and fees over the last decade have slowed compared to prior decades, they continue to rise at both public and private nonprofit institutions. The average annual increase of inflation-adjusted tuition and fees at private, non-profit, four-year institutions was 2.4% in the years between 2003 and 2013 down from an
annual rate of 3.0% between 1993 and 2003 (College Board Advocacy and Policy Center, 2012b). However, between 2006-07 and 2011-12, net tuition prices—the average price paid by the student and his/her family after discounting for grants and aid—declined or remained static—despite increases in tuition. In 2012-13; however, grants and aid, for the first time since 2006-07 did not keep pace with rising tuition costs and the average net tuition price increased by almost $800 for private nonprofit colleges and universities (p.20). The rise in net tuition prices in 2012-2013—in an environment in which institutions are maintaining tuition increases at levels lower than previous decades and enrolling students with more need—suggests that private, nonprofit, colleges and universities may be unable to meet increased need with grant and aid funding and that the “gap” between financial aid and tuition costs may be increasing. As the “true” price of private, nonprofit, colleges and universities rises, access for low-income students is likely to decrease at these institutions.

All of the four university presidents interviewed for this dissertation termed the post-recession environment in which they found themselves “the new normal.” The new normal is characterized not only by a student population with less wealth, but by eroding state support and expectations of reduced federal support for higher education and by lower tuition increases. It is characterized also by parents who—in the terminology of one interviewee—were “in revolt” at the high cost of tuition and the lack of financial support for the student with little or no financial need.

The presidents described an environment in which they were offering financial support to students who they would not have previously provided with aid awards in order to compete against other colleges and universities for students. Different from prior
trends that allocated merit awards to the “best and the brightest” regardless of financial need in order to increase SAT scores and institutional rankings, this new trend is motivated by the financial necessity to enroll students from families with the capability of funding the majority of tuition costs. Providing “discounts” to admitted students who don’t have demonstrated need allows universities to capture the majority of tuition and encourages student enrollment in an environment where other institutions are also offering those discounts.

Colleges and universities, particularly private colleges and universities that are highly dependent on tuition revenues to fund their institutions, are operating in an environment of compressed resources and increased market pressures that have become more constrained after the recession of 2008-2009. This environment has made it much more difficult for colleges and universities to fund mission objectives of supporting low-income and underrepresented minority students.

Mission at the Margins

The presidents interviewed were eager to discuss the issues surrounding enrollment and financial aid policy, both at their institutions and nationally. They talked about the challenges of maintaining a mission of outreach and access and at the same time providing sufficient funding to institutional operations to preserve educational quality and the “value” of the university in the marketplace. All four presidents were concerned with the future of federal financial aid, and three expressed concern about the future of the state tuition grant program in their states.

None believed that their institutions had the capacity to provide the additional necessary financial resources to students should state and/or federal aid be lost or lowered
substantially. All questioned the long-term sustainability of the present financial model, and short of exponentially increasing fundraising none could see how the current approach was viable in the long-term. They noted that the financial model of generating high net tuition from high margin programs and/or full pay students in order to underwrite mission objectives of outreach to low-income and underrepresented minorities was not tenable, because of several factors: (a) there were fewer families capable of paying the full cost of private education; (b) competition in the marketplace required financial support for students who previously would not have been allotted financial aid; and (c) low tuition increases meant less net tuition. In short, each described an environment of severe economic compression that impacts on their ability to continue to fund mission objectives of outreach and support for low-income and underrepresented minority students.

The joint pressure of the national agenda of student attainment and the inability of most institutions to meet full need has given rise to programs that strategically target a small percentage of low-income students of color and provide them with substantial financial and academic support resources. Presidents at two of the universities—A and D—had implemented targeted scholarship programs providing comprehensive financial and academic support for small numbers of low-income, minority students. The motivation for establishing these programs was twofold: (a) the presidents indicated that they believed that creating scholarship funds with substantial financial support—at levels higher than the universities had been awarding on average—was necessary to effectively retain and graduate low-income, minority students, and (b) limiting the total number of students participating in these scholarship programs was a way to meet mission
objectives in a fiscally constrained environment. These scholarship programs are expected to contain costs by limiting the number of students who would require the universities to meet full need and to underwrite a targeted group of students with complete funding and student support services to encourage their success. Looking for ways to stay true to mission, manage limited resources, and increase student retention and graduation rates, it is likely that higher education leaders will increasingly adopt approaches such as the ones undertaken by these institutions. This response has the potential to increase graduation rates for a smaller number of students, but it also has the potential to limit funding and access for other students.

Enrollment officers at the participating institutions were forthright about the challenges of their positions and of the difficulty of achieving the revenue goals of their universities in a competitive market and difficult economy. All were supportive of their universities’ mission of outreach and access, but also cognizant of the need to assure that their institutions would be viable in the long term. Enrollment and financial aid officers interviewed at all of the institutions discussed a trend they were seeing that students who were low-income and not high achieving were either being denied admittance or were being offered a level of financial aid that would discourage attendance. At three of the four universities, enrollment management staff had begun to actively counsel these types of students from attending. At the fourth university, the institution had begun to deny acceptance to some very high need students in order to be able to meet need of the broader student population.

The central role of enrollment and financial aid policy and practice to the operation of these universities is conveyed to and understood broadly by their university
communities according to the leadership who participated in this research study. Each of
the universities had re-allocated resources to provide additional funds for financial aid: in
some cases foregoing annual salary increases, in others deferring maintenance, and in
others delaying hiring of faculty and staff. At all of the institutions, financial aid had
become the second highest expenditure after salaries and benefits, and in each case the
Board of Trustees had indicated that rising tuition discount rates would need to level out
or decline.

The Role of Planning and Decision-Making

Each of the universities visited had different approaches to planning and a
different process for decision-making; however, enrollment management and financial
aid practice has clearly taken center stage in terms of institutional priorities and is
engaged at the highest levels of these institutions. At all four institutions the role of the
president in establishing and maintaining a focus on mission was critical. At Universities
A and B the presidents have set an institutional agenda around a mission that they both
helped create and oversee high level discussion and planning around enrollment and
financial aid practice. At University C, the President established the program to meet full
need, and he is likely to have influence in the planning process that will make decisions
about the university’s policy going forward. At University D, the President has a new
management team and a fresh strategic plan after a decade of uneven leadership.

At all of the institutions researched in the qualitative phase of this research study
the campus community is regularly kept informed about enrollment progress and
financial aid allocations. In one case, the President holds regular town hall meetings to
update the faculty and staff; in another case the President has taken the opportunity at key
university events to discuss the challenges of balancing the budget and upholding mission: at another, a campus-wide budget committee that meets numerous times a semester reviews broad-based enrollment and financial aid data; and at the fourth institution faculty and staff were engaged in discussion about enrollment and financial aid as part of a recent strategic plan.

At Universities A, B, and D—insitutions that did not meet full need—the CFOs and Directors of Financial Aid indicated that frequently students with large “gaps” between financial aid and tuition left the university because they were unable to sustain the cost of attendance. In the case of University C, where need is being met at a high level, and the institution is graduating underrepresented minority students at a very high level, all interviewed were confident that meeting need at high levels had a positive relationship to persistence and graduation.

Leadership at University C acknowledged that the major factor associated with high graduation rates was the academic preparedness of incoming students but pointed to the fact that other institutions with like incoming SAT scores had lower levels of minority student persistence. The Dean of Enrollment and the Director of Financial Aid believed that meeting full need meant that students were able to work at a job less or not have one at all, focus on their studies, and persist and graduate. If accurate, the perceptions of the Dean of Enrollment and Director of Financial Aid at University C would correspond to past research that indicated that a student’s finances could negatively relate to integration into campus life, and financial support could ameliorate that situation (Cabrera, Nora, & Castaneda, 1993; Cabrera et al., 1992; Cabrera et al., 1990).
Admittedly, the observations of the CFOs, Directors of Financial Aid, and Deans of Enrollment in this study are local and their experiences are anecdotal. However, as the college going population has become more needy—evidenced by the increase in the percentage of Pell eligible students enrolled (37% in 2011 compared to 24% in 2006)—the role of meeting need warrants further inquiry—perhaps among institutions that are similar in their ability to offer financial support.

Retention of Latino and African American Students

The retention and graduation of Latino and African American students is an issue that is important to the leadership of the universities that participated in this study. The missions of each of the institutions support both access and attainment for these student populations. Too, the Presidents at these institutions are aware of the national attainment debate and concerned that their universities should be successful in this regard. All four of the institutions that participated in the case studies had inaugurated measures to increase recruitment and graduation of underrepresented minority students over the year prior to the research study. All had implemented targeted academic support programs for students of color, each had initiated tracking and early warning systems, and all had worked to expand their minority student population. Three of the four universities had increased the number of faculty and administrators of color in the prior decade.

Each of the four institutions was committed to creating a diverse environment in which minority students felt comfortable and part of the university community.

University B with an underrepresented minority population of 17% had been recognized by *U.S. News and World Report* as one of the most diverse campuses in the country.

Leadership at University B who were interviewed for this study believed that the
diversity of the campus community—diversity of students, faculty, and staff—was one of the principal reasons that the institution had graduation rates above the mean of the private colleges and universities examined. The Provost and the President talked about the “critical mass” of minority students at the institution referencing how the size of the diverse student population provided supportive social systems for these students. They also noted that students of color had the advantage of role models and mentors in the faculty and staff of color. They, along with the Dean of Enrollment and the Director of Financial Aid, believed that the diverse and accepting environment was the principal reason for strong retention and graduation rates among underrepresented minorities. If accurate, the experience of University B would be consistent with past research that indicated that minority students persist in environments with community and social support systems and at institutions where students’ cultural and racial identities are supported (Guiffrida, 2006).

The two universities that graduated African American and Latino students at a low level — University A and University D - attributed the low graduation rate to admitting students who were underprepared and not having strong retention programs in place. At University A academic preparedness might be the primary cause of the difference between high and low graduation rates for underrepresented minorities since University A’s average incoming SAT score at the 75th percentile is 1090. However, that was not the case with University D. With an incoming SAT score at the 75th percentile of 1120, University D’s SAT score was similar to University B (1150) and University C (1180) — institutions that graduated minority students above the mean of the institutions in the study. The leadership at University D cited the additional factor of a rural
environment in which the university resided could be considered isolated for students of color that could contribute to minority student attrition.

Senior leaders interviewed as part of this research project had strongly divergent views on the relationship between financial aid and graduation of underrepresented minority students. Academic leaders – Provosts and Presidents – believed that academic support programs and strong learning communities were integral to the success of academically underprepared Latino and African American students and that a diverse faculty and student body was important for the success of all minority students. One of the Presidents indicated he believed that additional support for minority students might increase retention and graduation rates, two said that they had not thought about financial aid with regard to retention, only with regard to access, and the fourth noted that the university was already meeting full need.

Nevertheless, one of the Presidents who said that he had not thought about aid and retention had established a scholarship program for low-income, underrepresented minority students that provided financial resources beyond full need. He explained that it would be difficult for students from low-income, minority families to come to school at University D and not have books, housing, and funds for entertainment. He commented that providing support beyond full tuition costs encouraged low-income students to study without taking on the financial burden of loans or having to work long hours to pay for school. Although he had not explicitly considered meeting need at a high level as a mechanism for increasing persistence and graduation for minority and low-income students, the program that he designed provided resources beyond full need so that students would have the funding necessary to concentrate on their studies and not worry
about paying for the cost of their education. Even though he did not see a direct connection between financial aid and retention, he asserted that low-income, minority students required comprehensive funding in order to participate fully in the academic and social life of the university. Financial resources in this scholarship program, he believed, would support retention and graduation by encouraging integration into the university.

Generally, those personnel who dealt directly with students with financial need believed that that financial aid was important in the retention and graduation of Latino and African American students. All four Chief Financial Officers and two of the four Directors of Financial Aid stated that in their view additional aid would increase retention. This discussion centered on the “gap” between student aid and family ability to pay. First generation students, they stated, often do not have a complete grasp on the total cost of a college education. Many students believe they can fund the gap, and when they can’t, they leave often after incurring high levels of debt. On the question of the impact of financial aid on retention, the answers varied from certainty that meeting need at a high level increases retention and graduation (from the institution that meets full need) to believing that additional aid would be helpful, but not the determinant factor in student persistence (from the other three institutions).

Understanding the factors that encourage graduation of low-income and underrepresented minority students is complicated by the diversity of institutional characteristics of the universities that participated in these case studies and the variety of institutional financial aid practices. The quantitative analyses support prior findings that academic preparation as exhibited by SAT scores has the most positive relationship to student persistence and graduation. However, the case studies illustrate how individual
institutions with similar institutional characteristics and student bodies with roughly similar levels of academic preparedness can vary in their performance in retaining and graduating low-income and minority students.

Summary

Although there is pressure on the universities that participated in this study to shift away from recruiting, enrolling, and graduating low-income and underrepresented minority students due to the financial constraints, senior leadership is working to continue to support their mission goals in some manner. These case studies identify several critical points where mission goals are articulated relative to the institution’s enrollment and financial aid objectives: (a) on the ground - as the financial aid leveraging matrix is established and the university projects how much of its institutional aid budgeted can be allocated to students of need; (b) as part of strategic and annual planning processes—as governing bodies and senior leadership balance external economic and demographic trends with internal needs in the context of the university’s mission and determine what the student body should look like from a socio-economic, racial, and ethnic perspective; (c) at the level of Board of Trustee and presidential leadership—as leaders coordinate the university’s long-term goals and viability in the context of mission.

At each of the four universities studied the President led efforts to support the institution’s mission of aiding low-income and underrepresented minority students while balancing the university’s financial needs. At each institution, the President was involved in setting the agenda for the university’s financial aid practice and educating the university community on enrollment and financial aid management throughout the ranks—from the trustees to the faculty and staff. Presidential leadership in each instance
maintained focus on institutional mission and encouraged decision-making to ensure continued support for underrepresented populations either through initiation of targeted scholarship programs for these student populations and/or sustaining levels of financial aid to ensure access.

However, at each of the four universities that participated in the case studies it was revealed that as a consequence of institutional financial capability and pressure to retain and graduate underrepresented minority and low-income students the universities would be or already were initiating practices that would discourage or limit low-income students from enrolling at the institutions. Three of the universities studied indicated that they were actively counseling admitted high-need students out of attendance and into alternative, more affordable institutions—generally community colleges. The fourth institution in the study had moved to a “need-aware” admissions approach of denying admittance to some students based on the financial need of the student. According to these representatives, the shift in enrollment and financial aid practice was initiated, in large part, due to an economy that had changed dramatically with the recession of 2008-2009 and has not recovered substantially since that recession. All of the representatives interviewed indicated discomfort with changes in enrollment and financial aid practice that limited access, but argued that for the good of the viability of the university the change in policy was required.

Institutional representatives at each of the four universities in the case studies articulated the belief that the current business model for private, nonprofit colleges and universities is “broken” and that the funding sources—state and federal support and families with the ability to pay all or the majority of tuition costs—have already declined
or are expected to diminish substantially in the future. The business model that has allowed these institutions to underwrite outreach to low-income and underrepresented minority students, they believe, is no longer viable and the leadership is struggling to maintain the same level of mission focus in a new economic environment with additional financial challenges.
Persistence research has indicated that financial aid in general (Perna, 1997) and institutional aid in particular (Gansemmer-Topf and Schuh, 2005; Price and Davis, 2006) can have positive effects on student retention. Using quantitative methods this study examined the potential relationship between institutional financial aid practice—both the percentage of need met and the percentage of institutional aid allocated to needy students—and student graduation rates, looking particularly at the relationship between aid and Latino and African American student persistence and attainment. Using qualitative analysis, four case studies sought to identify commonalities and differences in decision-making relative to support of low-income and minority students in the context of institutional mission among institutions. The four universities, similar in size, selectivity, and assets, but different in terms of graduation rates and the level of student need met, were examined through case studies. The quantitative analysis indicated that neither the level of student financial need met nor the percentage of institutional aid allocated to needy students was related to student graduation rates. The case studies, however, revealed that in the experience of leadership at these universities financial aid practice affected—to varying degrees—student persistence of low-income and underrepresented minority students.

Exploring the differences in the results of the quantitative and qualitative analyses offers insight into the challenges that private, nonprofit colleges and universities face in supporting outreach to low-income and underrepresented minority students through the allocation of institutional resources; it also provides an opportunity to look at the shift in
financial aid practice following the U.S. recession of 2008-2009. The advent of a “new normal” identified by leadership interviewed for this study is anticipated to have profound effects on how private, nonprofit colleges and universities determine and implement financial aid policy in the future. The mission of enrolling and financially supporting low-income and minority students is changing in ways that may potentially provide increased financial and academic support for targeted, limited numbers of students from these populations but will overall restrict access to private colleges and universities for students traditionally underrepresented in four-year post-secondary institutions. The new normal identified in this research study implies a conflict at both the institutional and policy levels between a commitment to access and completion and new, increased financial challenges that may impede the ability of colleges and universities to uphold that commitment.

Factors Influencing Retention and Graduation: Selectivity and Wealth—Yes; Financial Aid Practices—Possibly

The quantitative analysis in this study supports earlier persistence research that indicated that selectivity is a key predictor of graduation (Astin, 1993; Baum, Ma, & Payea, 2010; Marcus, 1989; Oseguera 2005-2006; Pascarella & Terenzini, 2005). In the analyses completed for this dissertation selectivity was positively related to graduation rates of the general student population and of Latino and African American students. The path analysis found, too, that endowment per FTE had a direct positive relationship to graduation rates. The positive role of endowment in the overall, African American and Latino graduation rates is possibly a function of the selectivity of the institution, as institutions with high endowments are often more selective, and more selective
institutions enroll more academically prepared students, who graduate at higher rates (Oseguera & Rhee, 2009).

Path analysis identified several variables as related to the percentage of student financial need met by the private, nonprofit, four-year colleges and universities included in the analysis: endowment per FTE, SAT scores and total enrollment. Path analyses revealed that the richer and more selective the college or university, the higher the percentage of student need met, and descriptive statistics (Table 3) illustrate that the wealthier and more selective the college or university the lower the percentage of underrepresented minority students enrolled.

Path analysis also indicated that admit rate was negatively related to the level of institutional aid allocated to needy students—the more selective a college or university, the more institutional aid allocated to students with demonstrated need. In short, the poorer and less selective the college or university in the analysis, the higher the percentage of Latino and African American students enrolled and the lower the percentage of student need being met; the less selective the institution, the lower the percentage of institutional aid allocated to needy students. Adding less selective colleges and universities to the sample would likely increase the variance of institutional aid allocated to students with need. Had there been greater variation in the percentage of aid awarded to needy students the research might have found a significant relationship to student graduation rates.

On the whole wealthier, more selective institutions had fewer Latino and African American students and presumably more resources to devote to aid and programmatic support, and smaller institutions were better able to meet need. But these favorable
characteristics (wealthy, selective institutions) are not the typical situation for Latino and African American students. There are greater percentages of Latino and African American students at colleges and universities with less wealth and which meet less need. It is likely that this disparity and these results would be even greater if we examined the whole universe of private colleges and universities, the institutions included in this analysis were institutions that were more highly endowed and more selective and enrolled fewer underrepresented minority students than those colleges and universities that did not report their financial aid practice. It follows that more Latino and African American families are shouldering a larger percentage of the cost of private education. Moreover, the qualitative research in this study indicates that the trend is to meet less student need in the future, which will further burden Latino, African American, and low-income students and possibly encourage these students to find alternatives to four-year colleges and universities such as community colleges.

Although wealth and selectivity are predictors of graduation among the general, Latino, and African American populations represented in the analysis, the quantitative research indicated that financial aid practice was not a predictor of graduation rates among the private, nonprofit colleges and universities included in the analysis. Path analysis showed that neither the percentage of student need met nor the percentage of aid allocated to needy students was a meaningful predictor of student graduation rates: overall, African American, or Latino. The perception; however, of the vast majority of the leadership interviewed in the qualitative analysis was that financial aid played a positive role in student persistence and graduation. Across the board, interviewees indicated that, although not the primary determinate of student persistence for Latino,
African American, and low-income students, financial aid contributed positively to graduation rates along with other forces including academic preparation, student support services, and a culturally sensitive environment that included a diverse faculty and staff.

Reconciling Findings from the Quantitative and Qualitative Analysis

The contradiction between the findings of the quantitative and qualitative research can possibly be attributed to several factors: timing; the different methodologies employed in the study; and little variance in financial aid practice across the institutions in the analyses. However, whatever the source of the difference in the results of the quantitative and qualitative research, it is clear if the institutions in the case study are an indication that the role of financial aid in encouraging persistence and completion—and in assuring access for underrepresented populations—is shifting. The financial challenges that private, nonprofit colleges and universities presently face are unlikely to abate, according to leaders interviewed for this study. These current and projected financial challenges are expected to narrow the ability of institutions to use their financial resources to improve, and even to maintain, access for low-income and underrepresented minority students potentially constricting and altering institutional missions and negatively impacting the larger public agenda of expanding access and increasing completion.

Data from the quantitative research was drawn from 2009-10 IPEDS information and reflects financial aid practice in a largely pre-recession environment. Total need met in 2009-10 reflected financial aid packages and the level of financial need of both students who had entered college prior to 2008-09 and those who entered during and immediately after the recession. If the experience of the four institutions studied for this
dissertation is consistent among other colleges and universities, financial aid practice changed substantially in the post-recession years as higher education institutions faced an environment in which students had higher levels of financial need, fewer students were capable of paying all or most of the cost of tuition, and some states reduced support of state-funded student tuition grants and financial aid programs.

Administrators at the universities that participated in the case studies were reporting exclusively on the post-recession years when describing both their financial aid practices and the experiences of students leaving prior to graduation for financial reasons. The qualitative research revealed that, at the universities studied, the level of need met was projected to be less in 2011-12 than the level of need met reported in the 2009-2010 IPEDS. According to administrators at the institutions in the case study analysis, in 2011-12 families of enrolled students were needier; fewer students capable and/or willing to pay the full cost of tuition; and, although attempts had been made to contain tuition cost increases, tuition had continued to rise at rates above the consumer price index.

Financial aid directors at three of the case study institutions—those that did not meet full need—noted that the result of these trends was the creation of larger “gaps” between tuition and student financial aid packages. If the trend to greater gapping found at the universities in the case study analysis is consistent among private, nonprofit colleges and universities, it is possible that students and their families have been unable to manage the larger gaps of unmet financial need in the post-recession environment. There is a potential that a “tipping point” was reached post-recession where financial need that could not be met by means other than student financial aid (e.g. student work)
and that the university leaders interviewed were reporting the experience of a student body under increased pressure to find funds to persist at their universities.

Similarly, the institutions included in the 2009-2010 data set used for the quantitative analysis researched were meeting need at a fairly high level prior to the recession. As shown in Table 18 about 81% of the data set of private, nonprofit, four-year colleges that reported meeting need were meeting in excess of two-thirds of student need and less than 5% were meeting under 50% of need.

Table 18: Distribution of Percentage of Need Met at Private, Nonprofit, Four-Year Colleges and Universities in the Analysis

<table>
<thead>
<tr>
<th>Categories of Need Met</th>
<th>Number of Institutions</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 10%</td>
<td>3</td>
<td>.05%</td>
</tr>
<tr>
<td>10%-25%</td>
<td>6</td>
<td>1.0%</td>
</tr>
<tr>
<td>26%-50%</td>
<td>23</td>
<td>3.7%</td>
</tr>
<tr>
<td>51%-66%</td>
<td>88</td>
<td>14.1%</td>
</tr>
<tr>
<td>More than 66%</td>
<td>502</td>
<td>80.7%</td>
</tr>
<tr>
<td>Total</td>
<td>622</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Source: IPEDS and Petersons, Inc. 2009-2010 Data Set

Thus, one of the potential reasons for the incongruity between the quantitative and qualitative research in this study is the possibility that the level of need met prior to the recession provided sufficient resources for students to remain in school and graduate and that other factors—particularly endowment, enrollment, and SAT scores—took on a greater role in the model. A quantitative study looking at the relationship between need met and graduation rates with post-recession data might find that need met has a relationship to persistence and graduation rates, as the qualitative research suggested it does.

As the variance in the percentage of student need met was limited among the colleges and universities studied in the quantitative portion of this dissertation, so too,
was the variance in the percentage of institutional aid allocated to needy students. Descriptive statistics on the allocation of institutional aid indicated that, on average, the colleges and universities that reported on their practices—approximately 50% of the private, nonprofit four-year institutions in the U.S—directed almost 87% of their institutional aid to students of need. This allocation of institutional aid was consistent regardless of the wealth of the college or university as measured by endowment per FTE, varying only slightly—between 79% and 84%—across institutions with different endowment levels. The vast majority of institutional funds allocated by the institutions reporting for academic year 2009-10 and assembled for this research project underwrote the education of students with demonstrated need. The results of the research conducted for this dissertation are consistent with recent research that reported that four-year, private, nonprofit colleges and universities used between 72% and 92% of their institutional financial aid dollars to fund needy students in 2011-12 (College Board Advocacy and Policy Center, 2012b).

The population examined in this quantitative research project is limited as it is overrepresented with private, nonprofit, four-year colleges and universities that graduated students at a higher level and had a smaller percentage of underrepresented minority students than the non-reporting institutions, as detailed in Table 12. Data were self-reported and it is possible that there are differences in what and how the institutions examined reported. Data from the Common Data Set, however, are the data used for U.S. News and World Report college rankings and considered by that source to be a sufficiently accurate representation of institutional activity upon which to base published rankings. Also the data on institutional aid to needy students reported in the Common
Data Set which are the basis for the quantitative research in this study are consistent with research reported on by the College Board. The quantitative data used for this research illustrates a trend in financial aid practice of private, nonprofit colleges and universities in the United States in allocating the vast majority of their institutionally funded financial aid to support needy students and is, most probably, representative of the practices of private nonprofit institutions.

The relative lack of variance in financial aid practice among the universities reporting may be a factor when analyzing the difference between the qualitative and quantitative results of this study. The level of need met and the percentage of institutional aid allocated to needy students may, in fact, play a role in the retention and graduation of students in general and underrepresented minority students in particular, but the effect of these financial aid practices may not be apparent given the limited differences in practice among the universities analyzed. A quantitative study examining colleges and universities with a broader range of distribution of need met and/or percentage of aid allocated to needy students may result in quantitative findings that are more consistent with the qualitative results.

There is the potential, also, that as enrollment and financial aid practice is explored at the individual institutional level through qualitative analysis the nuanced interplay between the multiple variables that affect retention and graduation of students is seen more clearly. The qualitative analysis offers an opportunity to explore the multiple forces that affect student persistence in a different manner and at a different level than the quantitative analysis does. Path analysis indicates that the average incoming SAT scores have a significant positive relationship to overall, Latino, and African American
graduation rates. Student need is met at a higher level at more selective institutions. It is possible that we don’t see a relationship between need met and graduation rates in the quantitative analysis and we do in the qualitative research because selectivity and the level of need that an institution meets are so closely intertwined as to be difficult to separate in the aggregate of the sample population, but evident at the individual institutional level.

There is also the possibility that the experiences of the leadership at the four institutions studied in the qualitative analysis do not reflect the reality of the total population of the private, nonprofit, four-year colleges and universities researched in the quantitative analysis. Of the 27 interviewees from the four universities, only two stated that they did not believe that meeting more student financial need would positively contribute to student graduation, but the 25 interviewees who believed that financial aid had a role—in varying degrees—in student attainment were speaking from their understanding and observations of the trends in student need at their institutions. It is possible that the trends and observations of the leadership of the four institutions included in the qualitative analysis do not reflect the trends in the universe of private, nonprofit, four-year colleges and universities. Given the consistency of experience at the four different institutions, I consider this possibility less likely a cause of the disjunction between the qualitative and quantitative research in this dissertation. Rather, the difference between the two analyses is more likely a result of the timing of the data included in the analyses, the limited variation among institutions in the quantitative analyses, and/or a reflection of the more nuanced interplay among financial support for students, characteristics of the student body, and wealth of institution that are challenging.
to disentangle in the aggregate, but seen more clearly at the individual college and university level.

The “New Normal”

What is clear from this research is that there is a “new normal” in enrollment and financial aid practice among private, nonprofit institutions that has the potential to negatively affect access for low-income and minority populations. The new normal evidenced in this study indicates that private, nonprofit institutions are increasingly utilizing financial aid practice to recruit students with more capacity to pay and discouraging students with high financial need who are not academically at the top of their class from enrolling. Low-income students with the academic ability to be admitted to the institutions researched but not considered high achieving were, in some cases, counseled out of attending by university staff; provided with financial aid packages that had large “gaps” between aid and tuition costs; or were not granted admittance. At the same time while more affluent students with similar academic backgrounds were actively recruited and, increasingly, offered financial support that would previously not have been made available to them. There is a strong probability that this new normal will result in a decrease in low-income students at private four-year colleges and universities going forward and possibly further stratify college attendance and completion by race and class.

The majority of private, nonprofit, colleges and universities in this country are funded through tuition revenue. Dependence on student tuition dollars to underwrite institutional operations increased dramatically between 1999 and 2009 and by 2009-2010 net tuition revenue accounted for 40% of all revenue at private, nonprofit colleges and universities. At the same time, the average rate at which private institutions discounted
tuition increased to 40%. Funding from tuition has become both the main source of operational revenue and the principal means to support student financial aid at these institutions (GAO, 2012).

The common perception among the leadership at the four universities studied is that the current model for funding higher education is broken and cannot be sustained in the long-term. Administrators at the four universities reported that there had been dramatic increases in the percentage of the operating budget apportioned to financial aid in recent years—due primarily to greater student financial need. Leaders at three of the universities described decreases in tuition grants allocated to students by the state and reported the need to find additional institutional resources to bridge the loss of those funds. Interviewees at all of the universities conveyed apprehension that financial support for students from the federal government, already limited in their view, would diminish in the future. Leadership at all of the institutions reviewed for the case studies recounted pressure to provide some financial aid/tuition discounting to students without demonstrated need—not to recruit the “best and the brightest”—but rather to admit and enroll students with the capacity to pay the majority of tuition costs and thus produce revenue.

A combination of increased student need, diminishing and/or limited support from state and federal sources, and a highly competitive marketplace in which even those families with no demonstrated need are increasingly unwilling to pay the full cost of private post-secondary education has challenged the existing financial model. This model, according to leaders interviewed for this study has, through a combination of endowment funds, state and federal support, and tuition-generated financial resources,
enabled private, nonprofit colleges and universities to balance their institutional priorities and fulfill their missions—including outreach to low-income and underrepresented minority students. Should the perception that the current financial model is broken be widely accepted among private, nonprofit colleges and universities one potential consequence will be to fix this “broken” paradigm with a “functional” model by shifting away from mission-centered priorities such as recruiting and enrolling students traditionally underrepresented at four-year colleges and universities to students with more ability to assume the costs of higher education.

How decisions were made about enrollment and financial aid planning differed among the four institutions researched in the case studies, but at each university the President strongly supported the university’s historic mission and led his institution in balancing multiple financial demands to continue to support low-income and underrepresented minority students. As institutions face increasing economic and market pressure, leadership from Presidents and other senior leaders will be necessary to frame the conversations and the processes around which these important decisions are made.

Leadership, however, has limited ability to uphold and advance institutional mission around access and attainment for underrepresented populations if, as asserted by the presidents interviewed for the case studies, the current financial model is truly “broken.”

For organizations driven by mission, and by definition all nonprofit colleges and universities are bound by mission, the use of financial resources affirms institutional priorities and commitment—priorities such as what the student body will look like, how the institution will engage with the community, and what types of research it will undertake. How an institution disperses its resources signals its mission and values. If the
experience of the four universities in the case studies—that the current financial model is 
no longer sustainable—is reflective of private, nonprofit higher education in general there 
is strong potential that institutions will begin to reshape their missions relative to access 
and attainment for low-income and underrepresented students. They are likely to re-
allocate resources away from support of these populations and re-define mission to 
support more limited numbers of students with more comprehensive resources.

Future Research and Policy Implications

One of the limitations of this research project is that the quantitative data secured 
was from a subset of private, nonprofit, four-year colleges and universities, thus, the 
included institutions are not representative of private, nonprofit, four-year institutions 
nationally. Exploring the relationship between financial aid and student graduation rates 
at other types of colleges and universities and with a more representative sample of 
private, nonprofit, four-year institutions would offer the opportunity to further develop 
and test the relationship between measures of financial aid and graduation rates. Too, the 
quantitative data reflects financial aid policy in a pre-recession environment. Data 
gathered in a post-recession environment is likely to reflect a shift in the level of need 
met due to both needier student populations and increased aid allocated to students 
without need. A post-recession study reviewing need met and graduation rates might find 
a relationship between these two variables that is more consistent with the experience of 
leaders interviewed in the qualitative study.

This study suggests that the role of the President in managing mission objectives of 
the university in the context of multiple other demands is critical. Exploring presidential 
decision-making around shifting financial models in the context of organizational culture
would provide further insight into how institutions make decisions that require a balance of fiscal stability and mission.

The quantitative research in this study indicated that need met and institutional aid awarded to needy students did not have a relationship to graduation rates—overall, African American, or Latino. Yet, the qualitative research revealed that the majority of university leaders interviewed for the study believed that financial aid has some effect on the retention and attainment of underrepresented minorities and low-income students—along with academic preparation, student support services, and a culturally supportive environment. Specifically, leadership pointed to the challenge of students with large “gaps” between financial aid and tuition to manage their studies and fund the gap. Researching the specific experiences of students who are managing substantial “gaps” would attempt to uncover commonalities among students and might help determine whether there is a particular “tipping” point at which financial aid is a positive factor for retention and graduation of low-income and underrepresented minority populations and at what point and in what circumstances a “gap” is too large for students to persist to graduation.

Conclusion

These possibilities for future research should not distract us from the fact that Presidents and senior leadership are moving toward restricting access in order to respond to both budgetary pressures and calls for greater success in retaining and graduating students. These responses represent an understandable if regrettable reaction to the present situation in which much of higher education finds itself. Challenged by the post-recession economy, a highly competitive marketplace that requires the use of tuition
discounting for even those families with the capacity to pay full tuition costs, and eroding federal and state support for higher education, Presidents, Trustees, and senior administrators are making decisions about who will have access to private, nonprofit colleges and universities. If more case studies were done in the current environment, there is a probability that, for institutions that are highly tuition dependent (and the vast majority of postsecondary colleges and universities are) the findings would have been similar. There is little expectation from the leaders interviewed for this study that the pressures facing these institutions will lessen in the future; the consensus is that the current situation is the “new normal.”

But beyond illustrating the challenges facing colleges and universities separately, the case studies suggest some larger issues in higher education policy in the United States. President Obama and his administration have set a goal of leading the world in degree attainment. Policy makers and government officials alike assert the significance of higher education to the nation’s economic development and its importance in creating financial security for its citizens. There is agreement that as a nation we need to educate more students at a higher level, and to accomplish the attainment goals set forth, educating more poor and minority students is necessary. At the same time, the federal government seems unable to do more to assist with the financial pressures described in the case studies, and state governments are providing fewer and fewer resources per student to institutions of higher education, both public and private. Colleges and universities such as the ones in these case studies have missions committed to diversity and access, but the trend appears to be moving away from offering access, or at the very least re-defining it in a substantial manner.
If the financial model is truly broken, the measured alternatives suggested in the case studies—more on-line education, additional high margin programs, added numbers of foreign students—are unlikely to mend it sufficiently to allow institutions to be both viable in the long-term and mission-centered. In fact, there seems to be little in the way of proposals for change that would fix it the current model. What is needed is closer attention to and understanding of the factors—financial and others—that will support access and increase retention and graduation in this “new normal” environment. What is required are policies at all levels—institutional, state, federal—that will begin to repair the existing model or create a new one that promotes broad access and achievement as a matter of equity and national priority.
APPENDIX A: Interview Protocol, Questions for the President

1. Could you describe for me briefly, what you believe to be the centrality of the mission of the University?

2. How, do you think, that mission drives decision-making at the university? In terms of academic priorities? In terms of financial aid decision making?

3. Can you talk a little about the commitment to meeting full-need and how that impacts on Loyola Maryland? I know that there is a potential for change to that practice. How do you plan to continue to meet the institution’s mission in the context of changing dynamics?

4. Do you anticipate the percentage of your institution’s budget devoted to institutional financial aid staying the same/increasing/declining over the next 5 years? Can you talk about how an increasing proportion of the budget devoted to institutional aid impacts on other areas of the institution? What are the trade-offs, if any, to increasing this commitment?

5. Is financial aid policy something that is discussed among senior leadership? In what context? Can you describe how that process occurs, and some of the dynamics that are involved? How integrated is financial aid policy into annual financial planning?

6. Are there informal decision-makers or an informal decision-making process apart from/in addition to the formal one? Could you talk a little about that – who is involved and how decisions are made.

7. Do you involve committees of the Board of Trustees or the Board as a whole as you set financial aid policy? If not, do they have a role at any point (i.e. approve the budget)?

8. I’m looking at the potential relationship between financial aid policy - that is how institutions meet need and devote their institutional resources to financial aid and graduation rates of Latino and African American students. According to 2009 IPEDs data your graduation rates for Latino students and African American students is high.

   a. Is graduation of minority students a high priority at your institution?
   b. Why do you think you’re graduating minority students at the rates that you are? What are the circumstances that contribute to those graduations figures?
   c. How does your financial aid policy support your institution’s efforts to graduate minority students?
   d. Do you believe that increased financial resources dedicated to supporting minority students would enhance graduation rates? Why or why not?

9. What, if any, concerns do you have about your University’s financial aid policy? Do you have thoughts that you would like to share about the trend in institutional financial aid support in higher education as a whole?
APPENDIX B: Interview Protocol, Questions for the Provost

1. Could you describe for me briefly, what you believe to be the centrality of the mission of the University?

2. How, do you think, that mission drives decision-making at the university? In terms of academic priorities? In terms of financial aid decision making?

3. Reviewing the data on your institution, it appears that (as of 2009-10) you meet need at about xxx and that approximately xxx% of your institutional aid goes to needy students. How would you characterize your financial aid policy (e.g. primarily supports needy students, some funds for meritorious students).

4. Is financial aid policy something that is discussed among senior leadership? In what context? Can you describe how that process occurs, and some of the dynamics that are involved? How integrated is financial aid policy into annual financial planning?

5. Could you describe the role that academic affairs has in determining financial aid policy at the university (i.e. percent of the budget that is devoted to financial aid; priorities for financial aid). Do the faculty play any role? If so, in what manner? (e.g. Tuition/Pricing Committee; Budget Committee) Is financial aid policy an issue that the Academic Affairs Committee of the Board of Trustees takes up? If so, in what manner? What kind of data is reviewed in this process?

6. Are there informal decision-makers or an informal decision-making process apart from/in addition to the formal one? Could you talk a little about that – who is involved and how decisions are made.

7. Do you involve committees of the Board of Trustees or the Board as a whole as you set financial aid policy? If not, do they have a role at any point (i.e. approve the budget)?

8. I’m looking at the potential relationship between financial aid policy - that is how institutions meet need and devote their institutional resources to financial aid and graduation rates of Latino and African American students. According to 2009-10 IPEDs data your graduation rates for Latino students is xxx and xxx% for African American students.
   a. How do you feel about those rates? How do you understand it?
   b. Is graduation of minority students a high priority at your institution?
   c. Why do you think you’re graduating minority students at the rates that you are? What are the circumstances that contribute to those graduations figures?
   d. How does your financial aid policy support your institution’s efforts to graduate minority students?
   e. Do you believe that increased financial resources dedicated to supporting minority students would enhance graduation rates? Why or why not?
9. Do you anticipate the percentage of your institution’s budget devoted to institutional financial aid staying the same/increasing/declining over the next 5 years? Can you talk about how an increasing proportion of the budget devoted to institutional aid impacts on other areas of the institution? What are the trade-offs, if any, to increasing this commitment?

10. What, if any, concerns do you have about your University’s financial aid policy? Do you have thoughts that you would like to share about the trend in institutional financial aid support in higher education as a whole?
APPENDIX C: Interview Protocol, Questions for Chief Financial Officer

1. Could you describe for me briefly, what you believe to be the centrality of the mission of the University?

2. How, do you think, that mission drives decision-making at the university? How does the university’s mission influence financial aid decision making?

3. Reviewing the data on your institution, it appears that (as of 2009-10) you meet need at about xxx% and that approximately xxx% of your institutional aid goes to needy students. How would you characterize your financial aid policy (e.g. primarily supports needy students, some funds for meritorious students).

4. Would you describe for me your role in establishing how financial aid policy is set? What kind of data is reviewed in this process?

5. Is financial aid policy something that is discussed among senior leadership? In what context? Can you describe how that process occurs, and some of the dynamics that are involved? How integrated is financial aid policy into annual financial planning? How is it integrated into strategic planning? What kind of data is reviewed in this process?

6. Are other areas of the institution (e.g. academic affairs, faculty, advancement) involved as financial aid policy/practice is being established? If so, in what manner? (e.g. Tuition/Pricing Committee; Budget Committee? How do you manage financial aid practice in regards to the overall budgeting of the university?

7. Are there informal decision-makers or an informal decision-making process apart from/in addition to the formal one? Could you talk a little about that – who is involved and how decisions are made?

8. How involved is the Board of Trustees in establishing financial aid policy? Can you describe for me the issues that are most important to the Trustees. Are any of the committees of the Board of Trustees involved in decision-making around financial aid? How does the Finance/Budget Committee get involved with financial aid practice? How is the full Board of Trustees involved with establishing and/or monitoring financial aid practice?

9. I’m looking at the potential relationship between financial aid policy - that is how institutions meet need and devote their institutional resources to financial aid and graduation rates of Latino and African American students. According to 2009-10 IPEDs data your graduation rates for Latino students is xxx% and xxx% for African American students.

   a. How do you feel about those rates? How do you understand it?
   b. Is graduation of minority students a high priority at your institution?
   c. Why do you think you’re graduating minority students at the rates that you are? What are the circumstances that contribute to those graduations figures?
   d. How does your financial aid policy support your institution’s efforts to graduate minority students?
   e. Do you believe that increased financial resources dedicated to supporting minority students would enhance graduation rates? Why or why not?
10. Do you anticipate the percentage of your institution’s budget devoted to institutional financial aid staying the same/increasing/declining over the next 5 years? Can you talk about how an increasing proportion of the budget devoted to institutional aid impacts on other areas of the institution? What are the trade-offs, if any, to increasing this commitment?

11. What, if any, concerns do you have about your University’s financial aid policy? Do you have thoughts that you would like to share about the trend in institutional financial aid support in higher education as a whole?
APPENDIX D: Interview Protocol, Questions for Dean of Enrollment

1. Could you describe for me briefly, what you believe to be the centrality of the mission of the University?

2. How, do you think, that mission drives decision-making at the university? How does the university’s mission influence financial aid decision making?

3. Reviewing the data on your institution, it appears that (as of 2009-10) you meet need at about xxx% and that approximately xxx% of your institutional aid goes to needy students. How would you characterize your financial aid policy (e.g. primarily supports needy students, some funds for meritorious students).

4. Would you describe for me your role in establishing how financial aid policy is set? What kind of data is reviewed in this process? How does financial aid interact with the university’s enrollment practice?

5. Is financial aid policy something that is discussed among senior leadership? In what context? Can you describe how that process occurs, and some of the dynamics that are involved? How integrated is financial aid policy into annual financial planning? How is it integrated into strategic planning? What kind of data is reviewed in this process?

6. Are other areas of the institution (e.g. academic affairs, faculty, advancement) involved as financial aid policy/practice is being established? If so, in what manner? (e.g. Tuition/Pricing Committee; Budget Committee? How do you manage financial aid practice in regards to the overall budgeting of the university?

7. Are there informal decision-makers or an informal decision-making process apart from/in addition to the formal one? Could you talk a little about that – who is involved and how decisions are made?

8. Is there a Board of Trustees committee that works on enrollment management issues? If so, could you describe that committee’s involvement in financial aid policy. How involved is the Board of Trustees in establishing financial aid policy? Are there any other of the committees of the Board of Trustees involved in decision-making around financial aid? How does the Finance/Budget Committee get involved with financial aid practice? How is the full Board of Trustees involved with establishing and/or monitoring financial aid practice?

9. I’m looking at the potential relationship between financial aid policy - that is how institutions meet need and devote their institutional resources to financial aid and graduation rates of Latino and African American students. According to 2009-10 IPEDs data your graduation rates for Latino students is xxx% and xxx% for African American students.
   a. How do you feel about those rates? How do you understand it?
   b. Is graduation of minority students a high priority at your institution?
   c. Why do you think you’re graduating minority students at the rates that you are? What are the circumstances that contribute to those graduations figures?
   d. How does your financial aid policy support your institution’s efforts to graduate minority students?
e. Do you believe that increased financial resources dedicated to supporting minority students would enhance graduation rates? Why or why not?

10. Do you anticipate the percentage of your institution’s budget devoted to institutional financial aid staying the same/increasing/declining over the next 5 years? Can you talk about how an increasing proportion of the budget devoted to institutional aid impacts on other areas of the institution? What are the trade-offs, if any, to increasing this commitment?

11. What, if any, concerns do you have about your University’s financial aid policy? Do you have thoughts that you would like to share about the trend in institutional financial aid support in higher education as a whole?
APPENDIX E: Interview Protocol, Questions for the Vice President of Advancement

1. Could you describe for me briefly, what you believe to be the centrality of the mission of the University?

2. How, do you think, that mission drives decision-making at the university? In terms of fundraising priorities? In terms of financial aid decision making?

3. How does fundraising relate to the financial aid need of the university? Are you in a campaign now or are you planning to be? If so, will scholarship goals be a part of that initiative? Can you talk about scholarship needs in the context of other fundraising initiatives?

4. Reviewing the data on your institution, it appears that (as of 2009-10) you meet need at about XX% and that approximately XX% of your institutional aid goes to needy students. How would you characterize your financial aid policy (e.g. primarily supports needy students, some funds for meritorious students)?

5. Is financial aid policy something that is discussed among senior leadership? In what context? How integrated is financial aid policy into annual financial planning? Strategic planning? Fundraising planning?

6. Does the institution involve committees of the Board of Trustees or the Board as a whole as it sets financial aid policy? If not, do they have a role at any point (i.e. approve the budget)?

7. Are there informal decision-makers or an informal decision-making process apart from/in addition to the formal one? Could you talk a little about that – who is involved and how decisions are made?

8. I’m looking at the potential relationship between financial aid policy - that is how institutions meet need and devote their institutional resources to financial aid and graduation rates of Latino and African American students. According to 2009-10 IPEDs data your graduation rates for Latino students is XX and XX% for African American students.
   a. How do you feel about those rates? How do you understand it?
   b. Is graduation of minority students a high priority at your institution?
   c. Why do you think you’re graduating minority students at the rates that you are? What are the circumstances that contribute to those graduations figures?
   d. How does your financial aid policy support your institution’s efforts to graduate minority students?
   e. Do you believe that increased financial resources dedicated to supporting minority students would enhance graduation rates? Why or why not?

9. Do you anticipate the percentage of your institution’s budget devoted to institutional financial aid staying the same/increasing/declining over the next 5 years? Can you talk about how an increasing proportion of the budget devoted to institutional aid impacts on other areas of the institution? What impact does it have on fundraising priorities?
10. What, if any, concerns do you have about your University’s financial aid policy? Do you have thoughts that you would like to share about the trend in institutional financial aid support in higher education as a whole?
APPENDIX F: Interview Protocol, Questions for Director of Financial Aid

1. Could you describe for me briefly, what you believe to be the centrality of the mission of the University?

2. How, do you think, that mission drives decision-making at the university? How does the university’s mission influence financial aid decision making?

3. Reviewing the data on your institution, it appears that (as of 2009-10) you meet need at about xxx% and that approximately xxx% of your institutional aid goes to needy students. How would you characterize your financial aid policy (e.g. primarily supports needy students, some funds for meritorious students).

4. Would you describe for me how financial aid policy is set (i.e. parameters developed) and your role as director of financial aid in setting policy/practice? What kind of data is reviewed in this process?

5. Is financial aid policy something that is discussed among senior leadership? In what context? Can you describe how that process occurs, and some of the dynamics that are involved? How integrated is financial aid policy into annual financial planning? How is it integrated into strategic planning? What kind of data is reviewed in this process?

6. Are other areas of the institution (e.g. academic affairs, faculty, advancement) involved as financial aid policy/practice is being established? If so, in what manner? (e.g. Tuition/Pricing Committee; Budget Committee?

7. Are there informal decision-makers or an informal decision-making process apart from/in addition to the formal one? Could you talk a little about that – who is involved and how decisions are made?

8. Do you use a firm to help establish financial aid packages? If so, what kind of parameters do you give them as they go about their work? How does the institution’s mission play into the financial aid planning discussions that you have with your consultants?

9. I’m looking at the potential relationship between financial aid policy - that is how institutions meet need and devote their institutional resources to financial aid and graduation rates of Latino and African American students. According to 2009-10 IPEDs data your graduation rates for Latino students is xxx% and xxx% for African American students.

   a. How do you feel about those rates? How do you understand it?
   b. Is graduation of minority students a high priority at your institution?
   c. Why do you think you’re graduating minority students at the rates that you are? What are the circumstances that contribute to those graduations figures?
   d. How does your financial aid policy support your institution’s efforts to graduate minority students?
   e. Do you believe that increased financial resources dedicated to supporting minority students would enhance graduation rates? Why or why not?
10. Do you anticipate the percentage of your institution’s budget devoted to institutional financial aid staying the same/increasing/declining over the next 5 years? Can you talk about how an increasing proportion of the budget devoted to institutional aid impacts on other areas of the institution? What are the trade-offs, if any, to increasing this commitment?

11. What, if any, concerns do you have about your University’s financial aid policy? Do you have thoughts that you would like to share about the trend in institutional financial aid support in higher education as a whole?


Carnevale, A. (2010). *Postsecondary education and training as we know it is not enough: Why we need to leaven postsecondary strategy with more attention to employment policy, social policy, and career and technical education in high school*. Washington, D.C.: The Center on Education and the Workforce, Georgetown University.


