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THE EVALUATION OF TRANSFER APPLICANTS

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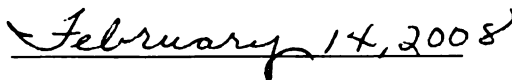
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**A NATIONAL STUDY OF INSTITUTIONAL POLICIES FOR  
THE EVALUATION OF TRANSFER APPLICANTS**

**By**

**Andrew Loren Flagel**

**A DISSERTATION**

**Submitted to  
Michigan State University  
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## ABSTRACT

### A NATIONAL STUDY OF INSTITUTIONAL POLICIES FOR THE EVALUATION OF TRANSFER APPLICANTS

By

Andrew Loren Flagel

This study surveyed chief enrollment officers at four-year institutions regarding policies for the evaluation of transfer applicants as a new component of the National Association for College Admissions Counseling (NACAC) Admissions Trends Survey. Regression analysis was conducted to determine which institutional characteristics had a bearing on whether, and to what degree, admission factors are in use for the evaluation of transfer applicants.

Applicant's grade point average from their prior post-secondary institution was the most important factor, regardless of institutional characteristics. The results indicate that institutions that are smaller, private, and that have more competitive admissions are likely to utilize a variety of evaluation factors. The results strongly suggest that many institutions have very little complexity in their transfer process, and that more complex policies are likely based on models developed for freshman evaluation. This suggests that policy makers and institutional leaders should examine transfer applicant evaluation policies. In addition, prospective transfer students are provided with insight as to how institutions are likely to evaluate their applications for admission.

This research is dedicated first to my wife and son for tolerating all the time this took from them. The results are dedicated to students who transfer into baccalaureate institutions, who are often viewed as filler for open spaces by enrollment managers, as less qualified by faculty members, and as less important by institutional leaders. You are in the majority – it is time for attitudes to change.

## ACKNOWLEDGEMENTS

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## TABLE OF CONTENTS

|   |    |
|---|----|
| LIST OF TABLES .....  | ix |
| CHAPTER I: THE PROBLEM STATEMENT.....                         | 1  |
| Introduction .....  | 1  |
| Problem statement.....  | 3  |
| Research questions.....                                       | 6  |
| Underlying assumptions .....                                  | 7  |
| Overview of methodology.....                                  | 8  |
| Definition of terms .....                                     | 10 |
| Significance of the study .....                               | 13 |
| CHAPTER II: LITERATURE REVIEW .....                           | 17 |
| Overview .....  | 17 |
| Enrollment trends and demographic data.....                   | 17 |
| Purposes and goals of the admission process .....             | 20 |
| Admission methods.....  | 25 |
| Admission evaluation criteria .....                           | 31 |
| Academic record .....   | 32 |
| Standardized tests .....                                      | 36 |
| Nonacademic criteria.....                                     | 44 |
| Articulation as an admission process .....                    | 51 |
| Transfer student admission, enrollment, and performance ..... | 55 |
| Literature review limitations .....                           | 61 |
| CHAPTER III: METHODOLOGY .....                                | 67 |
| Introduction .....  | 67 |
| Survey method.....  | 69 |
| Research design and Data Collection.....                      | 70 |
| Sampling .....  | 71 |
| Data Collection Tool .....                                    | 71 |
| Stratification.....   | 72 |
| Confidentiality.....  | 73 |
| Analysis.....   | 74 |
| Issues of validity and reliability.....                       | 75 |
| Methods of validity.....                                      | 75 |
| Methods of reliability .....                                  | 76 |
| Generalizability of data.....                                 | 76 |
| Delimitations .....   | 77 |

|  |     |
|--|-----|
| CHAPTER IV: RESEARCH FINDINGS .....                        | 79  |
| Institutional Control .....                                | 84  |
| Freshman Admission Rate .....                              | 90  |
| Transfer Admission Rate .....                              | 99  |
| Total Enrollment .....                                     | 107 |
| Freshman Class Size .....                                  | 116 |
| Transfer Class Size .....                                  | 125 |
| Results of Regression Analysis .....                       | 134 |
| Grade Point Average at Post-Secondary Institution .....    | 135 |
| High School Grade Point Average .....                      | 135 |
| Scores on Standardized Tests .....                         | 136 |
| Quality of Prior Post-Secondary Institution .....          | 137 |
| Quality of High School .....                               | 137 |
| Essay or Writing Sample .....                              | 138 |
| Work or Extracurricular Activities .....                   | 138 |
| Recommendations .....                                      | 139 |
| Ability to Pay .....                                       | 139 |
| Race/Ethnicity .....                                       | 140 |
| Interest in Attending .....                                | 140 |
| Alumni Relations .....                                     | 141 |
| Interview .....  | 141 |
| Received a GED .....                                       | 141 |
| Received an Associate Degree .....                         | 142 |
| Attended a Community College .....                         | 142 |
| Attended a Highly Competitive Four-Year College .....      | 142 |
| More than 60 Hours of Transferable Credit .....            | 143 |
| Visited the Campus .....                                   | 143 |
| Frequently Contacted the Admissions Office .....           | 144 |
| Over 25 Years Old .....                                    | 144 |
| Academic or Professional Focus .....                       | 144 |
| Plans to Enroll Full-Time .....                            | 145 |
| Plans to Enroll Part-Time .....                            | 145 |
| Open Response Section .....                                | 146 |
| CHAPTER V: SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS ..... | 148 |
| Introduction .....   | 148 |
| Methodology .....  | 149 |
| Overview of Findings .....                                 | 149 |
| Findings Contrary to Hypothesis .....                      | 155 |
| Limitations .....  | 157 |
| Implications for Practice .....                            | 158 |
| Implications for Future Research .....                     | 163 |

APPENDIX A: SURVEY QUESTIONS ..... 165

APPENDIX B: LETTERS TO SUBJECTS ..... 179

APPENDIX C: SUPPLEMENTARY TABLES ..... 182

REFERENCES..... 196

## LIST OF TABLES

|          |  |     |
|----------|--|-----|
| Table A  | Admissions Processes.....  | 27  |
| Table 1  | Frequency of Responses on Scaled Items.....  | 80  |
| Table 2  | Frequency of Indicator of Top Factor.....  | 81  |
| Table 3  | Frequency of Indicator of Second Factor .....  | 81  |
| Table 4  | Frequency of Indicator of Third Factor .....   | 82  |
| Table 5  | Frequency of Responses on Additional Factors.....                                      | 83  |
| Table 6  | Distribution of Respondents by Institutional Control .....                             | 85  |
| Table 7  | Frequency of Response on Scaled Items by Institutional Control .....                   | 86  |
| Table 8  | Associations on Scaled Responses by Institutional Control.....                         | 183 |
| Table 9  | Frequency of Indicator of First Factor by Institutional Control.....                   | 87  |
| Table 10 | Frequency of Indicator of Second Factor by Institutional Control .....                 | 87  |
| Table 11 | Frequency of Indicator of Third Factor by Institutional Control .....                  | 88  |
| Table 12 | Associations for Top Three Factors by Institutional Control .....                      | 184 |
| Table 13 | Frequency of Responses on Additional Factors by .....<br>Institutional Control         | 89  |
| Table 14 | Associations for Additional Factors by Institutional Control.....                      | 184 |
| Table 15 | Distribution of Responses on Competitiveness Scale for.....<br>Freshman Admission Rate | 91  |
| Table 16 | Frequency of Response on Scaled Items by Freshman Admit Rate.....                      | 92  |
| Table 17 | Associations on Scaled Responses by Freshman Admit Rate .....                          | 185 |
| Table 18 | Frequency of Indicator of First Factor by Freshman Admit Rate .....                    | 94  |
| Table 19 | Frequency of Indicator of Second Factor by Freshman Admit Rate.....                    | 95  |
| Table 20 | Frequency of Indicator of Third Factor by Freshman Admit Rate .....                    | 96  |



|          |  |     |
|----------|--|-----|
| Table 21 | Associations for Top Three Factors by Freshman Admit Rate.....                 | 186 |
| Table 22 | Frequency of Responses on Additional Factors by Freshman Admit Rate.....       | 98  |
| Table 23 | Associations for Additional Factors by Freshman Admit Rate .....               | 186 |
| Table 24 | Competitiveness Scale by Transfer Admission Rate.....                          | 100 |
| Table 25 | Frequency of Response on Scaled Items by Transfer Admit Rate.....              | 101 |
| Table 26 | Associations on Scaled Responses by Transfer Admit Rate .....                  | 187 |
| Table 27 | Frequency of Indicator of First Factor by Transfer Admit Rate .....            | 102 |
| Table 28 | Frequency of Indicator of Second Factor by Transfer Admit Rate.....            | 103 |
| Table 29 | Frequency of Indicator of Third Factor by Transfer Admit Rate.....             | 104 |
| Table 30 | Associations for Top Three Factors by Transfer Admit Rate.....                 | 188 |
| Table 31 | Frequency of Responses on Additional Factors by Transfer Admit Rate.....       | 106 |
| Table 32 | Associations for Additional Factors by Transfer Admit Rate .....               | 188 |
| Table 33 | Distribution of Respondents by Institutional Enrollment Size .....             | 107 |
| Table 34 | Frequency of Response on Scaled Items by Institutional Enrollment.....         | 109 |
| Table 35 | Association on Scaled Responses by Institutional Size.....                     | 189 |
| Table 36 | Frequency of Indicator of First Factor by Institutional Enrollment .....       | 111 |
| Table 37 | Frequency of Indicator of Second Factor by Institutional Enrollment.....       | 112 |
| Table 38 | Frequency of Indicator of Third Factor by Institutional Enrollment.....        | 113 |
| Table 39 | Associations for Top Three Factors by Institutional Enrollment.....            | 190 |
| Table 40 | Frequency of Responses on Additional Factors by Institutional Enrollment ..... | 115 |
| Table 41 | Associations for Additional Factors by Institutional Enrollment .....          | 190 |
| Table 42 | Distribution of Responses by Freshman Enrollment.....                          | 117 |

|          |  |     |
|----------|--|-----|
| Table 43 | Frequency of Response on Scaled Items by Freshman Enrollment .....           | 118 |
| Table 44 | Association on Scaled Responses by Freshman Enrollment .....                 | 191 |
| Table 45 | Frequency of Indicator of First Factor by Freshman Enrollment .....          | 120 |
| Table 46 | Frequency of Indicator of Second Factor by Freshman Enrollment .....         | 121 |
| Table 47 | Frequency of Indicator of Third Factor by Freshman Enrollment .....          | 122 |
| Table 48 | Associations for Top Three Factors by Freshman Enrollment .....              | 192 |
| Table 49 | Frequency of Responses on Additional Factors by .....<br>Freshman Enrollment | 124 |
| Table 50 | Associations for Additional Factors by Freshman Enrollment.....              | 192 |
| Table 51 | Distribution of Responses by Transfer Enrollment.....                        | 126 |
| Table 52 | Frequency of Responses on Scaled Items by Transfer Enrollment.....           | 127 |
| Table 53 | Associations for Scaled Responses by Transfer Enrollment .....               | 193 |
| Table 54 | Frequency of Indicator of First Factor by Transfer Enrollment.....           | 129 |
| Table 55 | Frequency of Indicator of Second Factor by Transfer Enrollment .....         | 130 |
| Table 56 | Frequency of Indicator of Third Factor by Transfer Enrollment .....          | 131 |
| Table 57 | Associations for Top Three Factors by Transfer Enrollment .....              | 194 |
| Table 58 | Frequency of Responses on Additional Factors by .....<br>Transfer Enrollment | 133 |
| Table 59 | Associations for Additional Factors by Transfer Enrollment.....              | 194 |
| Table 60 | Results of Regression Analysis .....   | 195 |

## CHAPTER I

### THE PROBLEM STATEMENT

*Community colleges had been in existence since the turn of the twentieth century, and with the increase in college attendance, their numbers increased as well, so that by the 1960s they were in every state. By this time, the bachelor's degree was the point of entry to vast areas of the workforce; predictably, the number of students transferring from two- to four-year colleges increased during this period (Cohen & Brawer, 2003). (Jacobs, 2004, p. 3)*

#### Introduction

The college-bound population is growing dramatically as the number of high school graduates in most states rises sharply. The Western Interstate Commission on Higher Education projects this increase to be, “about 10 percent more graduates in 2017-18 than in 2001-02” (*Knocking at the College Door*, 2003, p.3). If current rates of high school graduates seeking post-secondary enrollment continue or increase, this implies a 10% or greater increase in the number of high school graduates hoping to enroll in higher education during that period. These data are supported by projections from the U.S. Department of Education, which estimate an increase of 10% in the enrollment of students in degree seeking institutions between 2006 and 2014 (Husser, 2005).

There is little doubt that a significant portion of this growth will be absorbed by the community college system. The number of students enrolled in community colleges is already vast, although there are some differences of opinion as to the exact number. “The *Almanac* [2001 *Chronicle of Higher Education Almanac*] indicates that, 5.3 million students are enrolled at American community colleges; that figure is expected to increase to 6.67 million by the year 2010” (Steinmann, Pope, & Miller, 2004, p. 19). Two studies, however, estimated the number in fall 1999 and fall 2000 between 40 and 42% of

undergraduates in the United States, already over 6 million students (Horn, et al, 2002; Knapp, et. al. 2002), and the latter number was repeated in a recent column in *The Chronicle for Higher Education* (Wyner, 2006, B6). It seems these numbers may only apply to community college students enrolled in degree programs and in courses for academic credit, as another recent research study found that “America’s community colleges enroll approximately 10 million credit- and non-credit-seeking students each year (Laanan, 2001, p. 5)” (cited in Jacobs, 2004, p. 5), and an article in a Lumina Foundation publication claims that in 2004 there were “11.6 million students attending the nation’s nearly 1,200 two-year institutions. According to the American Association of Community Colleges (AACC), these 11.6 million students represent 46 percent of all U.S. undergraduates and 45 percent of first-time freshmen” (Giegerich, 2006, p.4). The most recent data on degree-seeking students in academic courses from the U.S. Department of Education, the source for the Almanac data cited by Steinmann, Pope and Miller, projects 7.2 million students at two-year institution by 2010, and 7.4 million by 2014 (Hussar, 2005).

These numbers are also reflected in the number of institutions, as “the number of community colleges alone has increased, from 74 in 1915 to 1,244 in 1998” (Cohen & Brawer, 2003). The number of institutions and students hold great implications for higher education. Among the issues is the number of students entering community colleges with the intent of transferring to baccalaureate-granting institutions. A study of students in 1989-90 found that 71% of community college students planned to transfer to a baccalaureate-granting institution (Bradburn & Hurst, 2001). As was noted recently in *The Chronicle of Higher Education*, “Last year alone, community colleges accounted for

45 percent of all first-time freshmen enrolled in higher education. About half of that number had the goal of attaining a bachelor's degree" (Dicroce, 2005, B22). If those numbers intending to transfer remain consistent, the number of students planning to transfer can be counted in the millions. Based on the projections in the growth of high school graduates, and the volume of that growth in high school graduates enrolling in the community college system, that number of graduates can be expected to rise sharply and dramatically in the near future. Of course, transfer students are not only received from the community college system. A U.S. Department of Education researcher found "nearly 60 percent of traditional-age undergraduates attend more than one institution" (Adelman, 2005).

This growth has massive implications for higher education. The academic and social implications of a likely shift in the college-bound population require attention, and that shift will be seen first in the admission process, the gateway into institutions of higher education.

### Problem Statement

Considering the volume of students seeking to move from community colleges to baccalaureate-granting institutions, and the number that move between baccalaureate-granting institutions, it's surprising so little is known about the process. Direct (a.k.a. freshman or FTIAC, first time in any college) admission after high school graduation to four-year institutions has been studied and written about extensively. There is a massive number of books advising students on the process (not to mention the annual college

ranking and college guide publications), in addition to a volume of academic research on the structure of the admissions process, ethical decision-making, and the value of various criteria in the process.

The gap in literature on the transfer admission process is especially surprising as the impact of community college transfers in higher education goes well beyond the tremendous number of students involved. The community college population is far more diverse than the enrollment at baccalaureate-granting institutions, and the community college is a far more likely destination for students of color and students from families with a lower socio-economic status, although, as with estimates of total students enrolled, the estimates of the size of these populations is slightly inconsistent, although researchers found the makeup of the student body at the community college level consistently diverse. “According to Eggleston and Lanaan (2001), racial and ethnic minorities account for approximately 48 percent of the community college population” (Jacobs, 2004, p.6). As a result, it appears that a significant portion of minority students in higher education are enrolled at the community college level. “In fact, 60 percent of all Hispanics in higher education are enrolled at community colleges, as are half of all women enrolled in college” (Steinmann, Pope, & Miller, 2004, p. 18). A recent article in a Lumina Foundation publication asserted that, “Community Colleges serve 47 percent of the nation’s Black undergraduates, 56 percent of Latinos, and 57 percent of Native Americans” (Giegerich, 2006, p.6). This is not a new phenomenon, as another author found in analyzing enrollment data from 1994 that “disproportionately large numbers of underrepresented college students attend community colleges. Approximately 50% of all minority students begin higher education at 2-year institutions (Carter & Wilson, 1995;

Levitz, 1992), despite the fact that they represent less than 23% of all students in American higher education (American Council on Education, 1994)” (Cuseo, 2001, p.5). In addition, “with the price of four-year colleges increasingly out of reach for working-class students, more of them are turning to community colleges” (Burd, 2006, p. A23). According to the U.S. Department of Education “2005 Digest of Education Statistics Tables and Figures” (<http://nces.ed.gov>), approximately 45% of the minority students enrolled in degree seeking programs in the United States are enrolled at two-year institutions.

As noted elsewhere, however, there is literature and research in an area closely related to the admission of transfer students. Research was conducted on freshman admission for many years, leading to a robust and detailed body of literature. These writings generally start with the basic information of current practices in the field, whether found through survey or conveyed by panels of experts, then explore the usefulness, efficiency, and ethics of such practices.

These same topics – admission practices, their use, effect, and ethics – apply to the study of transfer admission policies and procedures and must receive increasing attention to inform practice, and additional research, in the very near term. Unfortunately, no comparable study of the basic practices in transfer admissions has been conducted. This gap regarding transfer practices in admission literature makes it nearly impossible for other research to progress. What little research that might be developed, without any baseline information, will be challenging to apply beyond the institutions or students involved in the particular study.

In answer to that gap, this study used models developed in research on the admission process for students applying to baccalaureate-granting institutions immediately following high school as the basis for a survey of baccalaureate-granting institutions policies for the admission of transfer students.

### Research Questions

The basic research question is:

What are the criteria used in the evaluation of applicants with prior post-secondary credit (transfer students) seeking admission to baccalaureate-granting institutions?

1. Which criteria are used for the evaluation of the admission of transfer students applying to baccalaureate-granting institutions?
  - a. Which criteria are more important than others (how are criteria “weighted”) in evaluating transfer applicants?
  - b. What are the most commonly used standards for admission of transfer applicants?
2. What are the transfer admission criteria by institutional type, size, selectivity, or other institutional identifiers?



## Underlying Assumptions

Two organizations have been leaders in developing research on the admission process. Both have made heavy use of practitioners at receiving institutions, the individuals who set admission evaluation policy in examining the subject.

The College Board has a variety of quantitative research, particularly sources that explore the relationship between student test scores and other admission criteria with outcomes, student grades, and persistence at their receiving institutions (Bell-Rose, 1999; Bridgeman, Pollack, & Burton, 2004; The Future of the SAT Program, 1999; Guidelines on the Uses of College Board Tests and Related Data, 2002; The New SAT: A Guide for Admissions Officers, 2005; Questions and Answers about the New SAT for Admissions Officers, 2004). Several pieces of literature, however, have instead used qualitative methods to gather information from practitioners. In general, this body of literature utilizes a series of meetings sponsored by the College Board among experienced admission policy-makers from some of the most competitive institutions in the United States. "In August of 1998, a group of about 50 admissions deans, directors and researchers from the United States gathered . . . a dialogue on the future of admissions, and to consider how the profession needs to change" (Perfetto, 1999, p.1). Future sets of meetings were held as well, including meetings in the summer of 2004 (Rigol, 2004).

That literature is complemented by the annual survey conducted by the National Association for College Admission Counseling (NACAC). The survey is sent to the 1,500 to 1,600 member colleges and universities (the number varies with membership levels), and in 2004 the survey had a response rate of 43% (Hawkins & Lautz, 2005).

While their methods differ, both the College Board and the NACAC surveys assume that information on college admissions is best obtained from the institutional officials who set and/or implement these policies, and that the methods and criteria used can be established and compared across institutions that vary by location, size, control (public or private), and degree level (graduate, baccalaureate, and/or associate degree-granting).

This study similarly assumes that admissions professionals are the best source for information about the admission process. Further, although specific factors may vary, the framework used for describing and weighting criteria used for the admission of students directly from high school can be used to describe and weight criteria used for transfer admission.

### Overview of Methodology

To obtain this information, a survey was sent to chief enrollment officers at four-year institutions in the United States. Data were obtained from NACAC, and the survey itself has been combined with NACAC's annual *State of College Admissions* survey tool.

Within the volume of research on admission for the "traditional" college-going population, those entering baccalaureate-granting institutions immediately after high school graduation, there are a handful of seminal pieces. Two such pieces produced by the College Board, *Toward a Taxonomy of the Admissions Decision-Making Process* and *Admissions Decision-Making Models*, provide the most fundamental information about the traditional admission process, offering a basic map of criteria and methodologies. The

National Research Council's *Myths and Tradeoffs: the Role of Tests in the Undergraduate Admissions* supplements these. Each of these utilizes information from chief enrollment officers.

NACAC's annual publication, *State of College Admissions*, contains data from the annual Admissions Trends Survey. 43% of the approximately 1,500 post-secondary member organizations responded to the 2004 survey (Hawkins, 2004). Personal data of respondents to the survey is entirely confidential. While institutional characteristics are supplied, the identity of the institutions responding and the individuals at those institutions who supply the data were not supplied to the researcher, and so anonymity and confidentiality are entirely assured.

Like the initial pieces in that series on admission immediately following high school graduation, as part of the Admissions Trends survey, this research collected statistical data, and sought to clarify and categorize the community college transfer admission process and criteria based on data supplied by the participating institutions. It did not statistically validate or rate the effectiveness of those processes and criteria. In other words, while data were analyzed on admission practices, the effects of those practices were not included in the scope of this study.

In support of and providing background to this effort, the literature review includes a comprehensive discussion of the research on the admission process for students applying to four-year institutions immediately following high school, including the weighting of various criteria; the studies conducted on retention and graduation of students after transferring from community college to four-year institutions, where the studies are tied to admission criteria; the state of community college transfers to four-year

colleges; and the demographic data and projections on community college enrollment and transfer to four-year colleges.

### Definition of Terms

Baccalaureate-granting institution – A college or university at which the bulk of undergraduate degrees are baccalaureate programs. This term is often used synonymously in the literature with “four-year” college, university, or institution. While both terms appear regularly in the document, this is an important distinction, as some institutions traditionally labeled as “four-year” are now offering some associate degrees, while some traditionally labeled as “two-year” are now able to offer some baccalaureate degrees. In addition, time to degree completion at both types of institutions is not limited to a specific time span.

Community College – Institutions that predominantly award associate degrees, although some baccalaureate degrees may be available. This term is used synonymously in the literature with “two-year” institution and with “junior college” in the literature review, although this study uses community college as the preferred term.

Institutional Control – Whether an institution is governed under the authority of a state government or not. This study and the literature refer to whether a college or university is a private or public institution, offering only these two possible responses.

Freshmen – Freshmen, for the purposes of this study, are students applying to college with **no** college credit earned after high school graduation. Since the focus is on the **application** evaluation process, this is distinct from students who are classified as **freshmen** because they have not yet attained sufficient credits to be classified as

sophomores. Students applying to college with no prior credit before high school graduation are also referred to in the literature as First Time in Any College (FTIAC) students. That term is not tied to a student's class level, as freshmen may enter college with credit that brings them to sophomore level by receiving, for instance, Advanced Placement or Dual Enrollment credit while still in high school. Since this credit is received prior to high school graduation, they are generally still considered freshmen, and will be so for the purpose of this study.

Transfer students – Students who, after receiving a secondary diploma, receive post-secondary credit from any institution prior to applying to another institution of higher education. Some of the literature only explores transfer from community college to baccalaureate-granting institutions, such as the research on articulation, such as in Healy (1991). Other publications encompass both these community college to baccalaureate institution transfers as well as students moving from one baccalaureate-granting institution to another (Adelman, 2006, for example). This study made no effort to explore students moving from one community college to another, so the term transfer admission refers to students with post-secondary credit they received after high school graduation seeking admission to baccalaureate-grating institutions, regardless of prior institution.

Guest matriculants – Students enrolled in degree seeking status at one institution while receiving academic credit from another. Examples at the secondary level include students who take college courses while still enrolled in high school (Dual Enrollment). This is also true of students at the post-secondary level enrolled in a degree program who take courses elsewhere, including students enrolled in study abroad programs, in consortia

arrangements, or taking courses not offered at their home institution. This can be a source of confusion, as many institutions label the credit for all of these students as “transfer credit,” without labeling the students as transfer students. Guest matriculants are not a target subject of this study.

Admissions – The process of selecting which applicants will be offered the opportunity to matriculate at a post-secondary institution.

Selective admission – Admission for institutions receiving a number of qualified applicants that exceeds institutional capacity. “Of the 3,100 U.S. colleges and universities, in 1989 roughly 180 of them offered admission to less than half their applicants” (Blackburn, 1990, p.1). Considering the media coverage of the competitiveness of the admission process, it is surprising that this hasn’t changed significantly. According to the *US News and World Report’s America’s Best Colleges 2007*, however, only 197 colleges and universities nationwide currently report admission rates below 50% (2006,

<http://www.usnews.com/usnews/edu/college/rankings/rankindex.php>).

Articulation Agreements – Arrangements between academic institutions, generally community colleges and baccalaureate-granting institutions, although some institutions make agreements with high schools (Healy, 1991). The arrangements can, but do not always, grant admission to transfer or freshman applicants from the sending institution if students meet set standards. More recently, these broad admission agreements have been sometimes referred to as transfer agreements, distinguishing them from articulations, which may be more focused on the transfer of credit. Some of these arrangements have been mandated and/or established by state higher education coordinating bodies.

Swirl – A term used to describe students who move back and forth between multiple institutions (Townsend & Dever, 1999).

Reverse transfers – Students who transfer from a baccalaureate-granting institution to a community college (Townsend & Dever, 1991).

### Significance of the Study

Attracting, admitting, and enrolling qualified, interested, motivated, and – importantly – appropriate students who understand the realities of your campus culture and its academic and social demands will give you your best odds for retaining happy and successful students through graduation. Conversely, luring under prepared, disinterested, ill-informed, and inappropriate students who have been marketed a glossy view of campus and academic life will likely lead to a low sophomore retention rate, increasing attrition, and finally, a low graduation rate . . . A high retention rate signifies strong campus morale, engagement, and financial well-being for the institution. (Greene & Greene, 2003)

As this quote asserts, the admission process has a tremendous impact on both students and institutions. For students, admission is a goal to be achieved and an opportunity to benefit from the curriculum and services of those institutions that admit the student. For institutions, the admission process yields the enrollment needed for budgetary purposes, the quality of student sought in the classroom, and the type of student the institution is charged to serve. If the process functions correctly, all of these goals are met. If, however, the process functions poorly, then students are likely to find themselves denied opportunities they have earned, or, perhaps worse, admitted into institutions at which they are unprepared to succeed. In addition, institutions may miss enrollment targets, sending budgets into freefall, and worse, may find themselves enrolling students who they are not prepared to adequately instruct and serve.

“In an era when nearly 60 percent of traditional-age undergraduates attend more than one institution . . . it is important to mark transfer as a permanent change of venue, a migration that is formally recognized by system rules” (Adelman, 2005, p.xv). This is especially relevant in light of recent state and national initiatives to increase the rate of enrollment in community colleges and the articulation of transferring students from community colleges into four-year institutions. For example, Education Secretary Margaret Spellings, “said community colleges offered good values that could be covered by Pell grants. To lower their costs, students could be ‘starting there rather than at a state university,’ she said” (Burd, 2006, A23). Legislators across the country, who see community colleges as a less expensive investment than four-year publics, are raising the demand that four-year colleges increase transfer enrollment without any clear data on the impact such a shift might have on students and institutions. “Financially, directing support to community colleges as launching pads to the baccalaureate makes sense because it’s cheaper to have students start out at community colleges” (Dicroce, 2005, B22).

Despite the motivation to encourage community college enrollment, baccalaureate-granting institutions that are typically considered as the most competitive generally enroll few community college graduates, despite stated goals of diversifying their enrollment. As one author notes, “A growing number of community-college students are precisely the sort of exceptional achievers that elite colleges seek” (Wyner, 2006, B6). Wyner goes on, however, to point out that “research supported by the Jack **Kent** Cooke Foundation shows a striking decline in transfer enrollment at selective **institutions**” (Wyner, 2006, B6).



Unfortunately, there is very little, if any, research conducted on the admission process for students transferring from community colleges to four-year institutions to use in determining whether current processes are supportive of (or even detrimental to) an institution's goals, what outcomes new policies might have, and how the processes and standards are impacting transfer student enrollment patterns. A review of literature on the transfer process concluded, "much of the work presented in the articles is narrow in focus and case study-oriented. Research into national trends . . . would provide valuable perspectives" (Steinmann, Pope, & Miller, 2004, p. 23). Large studies, both qualitative (Cohen & Brawer, 1996; Cuseo, 2001), and quantitative (Adelman, 2005, 2006) have looked at patterns of transfer from community colleges to baccalaureate degree-granting institutions and identified a number of obstacles and opportunities of improvement. Cohen and Brawer (1996) in particular noted the difficulty of positively shifting transfer rates. As detailed in the literature review, however, none of this research has taken a systematic approach to reviewing the role that the admission of transfers plays, other than to raise questions about the lack of consistency in institutional and state policies (Cuseo, 2001; Knoell, 1990).

Considering the impact on society and the number of students involved, this gap is surprising. "Over the course of the undergraduate education of 1999-2000 college graduates (first-time bachelor's degree recipients), a majority (59 percent) had attended more than one institution." (Peter, Cataldi and Carroll, 2005, p.iii). Also, "forty percent of traditional-age students who entered post-secondary education in the 1990s started out in community colleges . . . for older beginning students, i.e., those starting out at age 24 or more, over 60 percent first enter community colleges." (Adelman, 2005, p.xvi).

Reflecting this data, the American Association of Community Colleges noted,

Almost half of all undergraduates who attend college – including the majority of first-generation and minority students – attend one of the nation’s community colleges. Of that number, close to half declare attaining a bachelor’s degree as their goal, yet only an estimated quarter of those students manage to achieve transfer to bachelor’s level programs. In bottom-line terms, lack of transfer can mean a significant difference in individual earning power over a lifetime. Beyond economic returns, higher levels of education can translate to important personal and societal benefits, including greater job security and flexibility, better health, increased tax revenues, and higher levels of civic participation. Clearly, it is in the best interest of individuals and our society to minimize existing barriers and maximize post-secondary success. (*Improving Access to the Baccalaureate*, 2004, p.vii)

The admission process is one key area that can minimize, or at times raise, barriers. Without research to guide policy decisions, it will be hard to determine which is occurring. This study is not intended to answer all of the questions regarding the evaluation of transfer applicants; no single study will be able to fill the enormous gap in the literature. However, as has been done with literature on aspects of admission from secondary institutions directly to baccalaureate-granting institutions, a basic framework must be provided that explores what processes are currently in use. This study serves as a crucial foundation for the ongoing study of the transfer admission process that is needed to adequately serve students and institutions alike.

The following chapter provides a more detailed review of the literature related to this topic.

## CHAPTER II

### LITERATURE REVIEW

#### Overview

A study of policies for the evaluation of transfer applicants requires an understanding of the literature related to that subject. This chapter begins with a review of the enrollment trend and demographic data related to education in general that directly impacts projections of transfer student application and enrollment trends. This is followed by literature focused on the evaluation of freshman applicants that examines the purposes and goals of the admissions process, and then by studies describing the methods used to evaluate freshman applicants. The review then describes the literature on specific criteria used in evaluating freshman applicants, including academic records, standardized tests, and nonacademic criteria. The review concludes with a description of the literature on articulation as admissions processes and the limited literature that looks at the admission, enrollment, and performance of transfer applicants and students. Lastly, the limitations of the review are provided.

#### Enrollment trends and demographic data

General trend data for enrollment and admission leave no doubt that the number of students heading into higher education in general, and community colleges in particular, is growing dramatically. “Nationally, annual increases in the number of [high school] graduates are expected to range from about 6,300, a .2 percent increase, to 79,000, a 2.5 percent increase from 2001-02 and 2017-18 . . . or about 271,500 more **graduates**” (*Knocking at the College Door*, 2003, p.3-12). Even if college enrollment

rates remain the same, despite efforts to increase them, this growth in high school graduates creates a huge pipeline of increased college-going students.

The majority of this post-secondary growth is likely to be seen in the community colleges. “More than 50% of all first-year college students attend two-year institutions (California Community Colleges, 1994; Parnell, 1986), and student enrollment at 2-year institutions is increasing at a faster rate than it is at 4-year colleges and universities (National Center for Educational Statistics, 1993)” (Cuseo, 2001, p.3). This has led leaders in higher education to predict a growing importance in community college expansion. “In the next five years, the nation’s two-year colleges will face a tidal wave of increased enrollment demand . . . [and] will have ballooning numbers of qualified students clamoring at the doors of two-year colleges for access to higher education” (Levine, president of Columbia University’s Teachers College, 2004). In addition to growth in traditional-age students, there is also great growth among adult learners. “Adult students – those students 25 years of age and older – now make up close to 50 percent of all college enrollments in the U.S.” (Aslanian, 1999, p.1).

That growth is of particular interest as the data also indicate the tremendous importance of community colleges to socio-economic diversity in enrollment in higher education. “At community colleges, 20 percent of all students were from families with annual incomes under \$25,000, 59 percent were from families earning \$25,000-\$74,999, and 21 percent were from those making \$75,000 and above” (Burd, 2004, p.A23). The enrollment of students with traditionally lower representation in four-year institutions *also* extends to family educational background and to ethnic and racial background. “**M**ore first-generation ethnic and racial minority students are enrolled at community

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colleges than at all of our nation's 4-year colleges and universities combined (California Colleges, 1994)" (Cuseo, 2001, p. 5). The most recent data from the National Center for Education Statistics (<http://nces.ed.gov>), supports the older report, finding that minority students enrollment at two-year institutions represents 45% of U.S. degree-seeking minority students. This led one recent publication to conclude, "There is ample evidence that students from middle-income and upper-income families are attending four-year institutions, while low-income students are concentrated in two-year community colleges. These patterns demonstrate serious constraints on the college-choice process for many students, especially students of color, who disproportionately come from lower-income families" (Kinzie, Palmer, Hayek, Hossler, Jacob, & Cummings, 2004, p.46).

These issues are particularly important from an admission perspective since "approximately one-half of all students who attend community colleges with aspirations to attain a baccalaureate degree will actually make the transition to 4-year institutions – with or without an associate degree (American Council on Education 1991; Pincus & Archer, 1989; Watkins, 1990)" (Cuseo, 2001, p.4). As the data above indicate, for increasing numbers of students, community colleges will be the primary option for starting higher education. As a result, the number of transfer students will likewise continue to increase, and this will create increasing pressure for institutions to better serve and evaluate these students.

This combination of the growth in college populations, the volume of that *increase* that is projected to start in community colleges, and the likelihood, based on *prior* enrollment, that the community college population will continue to be the most *diverse* sector of higher education enrollment, will place intense pressure on the

admission process. More students each year will be striving for transfer admission, and these increases, as noted above, represent a massive increase in volume, in addition to a desirable target enrollment for institutions seeking increased diversity. To understand how or whether that growth will or should change the admission process requires an explanation of how that process functions. While there is little or no data available on such practices for transfer students, closely related literature focuses on the admission of first time in college students, or FTIACs, also often referred to in popular and trade literature as “freshmen.”

#### Purposes and Goals of the Admission Process

While some institutions are open enrollment, and many others enroll the large majority of applicants, this study, and most of the literature, focuses on receiving institutions where admission of students is selective and/or competitive. As noted below, open enrollment policies are largely straightforward. In contrast, the methods for evaluating freshmen for admission at selective institutions can be very complex, and they vary to some degree from institution to institution. For instance, some institutions use faculty committees to evaluate candidates, while others use committees made up entirely of professional admissions staff (Blackburn, 1990). A common misconception, however, is that most colleges are highly selective.

Actually, there is only a handful at the highest competitive levels. “Of the 3,100 U.S. colleges and universities, in 1989 roughly 180 of them offered admission to less **than** half their applicants” (Blackburn, 1990, p. 1). As noted in the definition of terms **section**, *US News and World Report*, providing data based on their annual survey, found

that only 197 colleges and universities nationwide currently report admission rates below 50 % (2006, <http://www.usnews.com/usnews/edu/college/rankings/rankindex.php>).

“The colleges that have more applicants than they have available seats usually make their decisions based on factors other than test scores and grade-point averages (GPA), such as essays and recommendations. Because most of their applicants have high grades and test scores, the final decision usually comes down to other factors.” (Blackburn, 1990, p.3)

Although these institutions make up the minority of institutions, they receive disproportionate attention in much of the literature. Their admissions processes are more complex and provide insight to the many factors that can be considered in admission decisions.

Research points out that the objectives of those decisions are not always readily apparent. In exploring admission objectives, Blackburn (1990) included goals beyond the academic talent of an incoming class. These other goals pertain to the mix of students in the class, including gender ratio, international student population, and socio-economic status. He also noted that many schools set targets for portions of the class to be children of alumni, faculty, or staff members; students with interests in particular fields; and/or quality athletes. Presumably, the same goals could be set for transfer decisions.

In 1998 and 1999, Jack Blackburn, then the director and now dean of admissions at the University of Virginia and the author of the aforementioned research, chaired meetings of senior admissions officers, predominantly from highly selective institutions, on “the future of admissions, and to consider how the profession needs to change to meet social, political, and economic challenges of the twenty-first century” (Perfetto, 1999, p.1). The focus was largely on the admission of students from secondary institutions and resulted in several publications and further research. The first such publication, Toward a



Taxonomy of the Admissions Decision-Making Process (Perfetto, 1999), provides a wealth of insight to the purposes and methods of admission processes.

That publication notes, as does another from the same set of meetings (Blackburn 1990), the type of institution, generally as best represented by the institutional mission, is needed to understand the admission process. As a result, the author suggests three distinct decision-making models, largely dependent on their intended outcomes. Blackburn also draws a distinction between eligibility criteria and competition or selectivity.

“Eligibility-based admission [models] are ones in which there are objective and public criterion [sic] . . . All students deemed ‘eligible’ by these criteria will be admitted; all students who fail to meet the eligibility criteria will be denied” (Perfetto, 1999, p.3). This explanation of “open admission” is distinct from competitive models where eligible students are compared to determine which students are best-suited for admission. These models, Perfetto notes, are not completely incongruous, since most institutions with competitive models have some minimum eligibility standards.

The publication continues by linking these process models to general admission “**philosophies**” which, the author asserts based on the aforementioned meetings, are the **drivers** behind types of admission processes employed by institutions. For non-selective, **open** institutions, those using strictly eligibility-based criteria, these philosophies include entitlement, that, “higher education is an inalienable right and should be made available to everyone.” Also that “college is a natural progression after high school and should be **made** available to everyone who is qualified” (Perfetto, 1999, p.5). These bear on **discussions** of the transfer admission process, as most U.S. community colleges have a

tradition of open enrollment for students meeting minimum criteria (usually a high school diploma or equivalent credential).

The same publication (Perfetto, 1999) lists seven additional philosophies which are the basis for more selective admission process models and groups them in three categories: student capacity, student outcome, and student effect.

Student capacity contains “two perspectives that strive to recognize a prospective student’s capacity to perform in the college environment based on demonstrated performance prior to college.” This includes “meritocracy – Access to higher education is a reward for those who have been most academically successful” and “character – Access to higher education is a reward for personal virtue, dedication, perseverance, community service, and hard work” (Perfetto, 1999, p.6).

These issues of capacity may be contrasted with or complemented by issues of student outcome. These include “enhancement – The goal of higher education is to seek out and nurture talent” and, “mobilization – Higher education is the ‘great equalizer’ and must promise social and economic mobility” (Perfetto, 1999, p.6).

The last philosophies are grouped by the effect students can have on the receiving institution and even on the world and include “investment – Access to higher education should promote the greater good and further the development of society . . .  
**E**nvironmental/Institutional – The admissions selection process is designed to meet the enrollment goals and unique organizational needs of the admitting institution while promoting the overall quality of students’ educational experience” and “fiduciary – Higher education is a business, and access must first preserve the institution’s fiscal integrity” Perfetto, 1999, p. 7).

Perfetto reports that the meeting attendees tied these seven philosophies to seven “evaluative criteria” as follows:

- A. Capacity to Perform
  - 1. Academic Quality
  - 2. Personal Qualities
- B. Effect of Education on the Individual
  - 3. Potential to Benefit
  - 4. Overcoming Educational Adversity
- C. Potential to Contribute
  - 5. Potential to Contribute
  - 6. Student Body Needs
  - 7. Ability to Pay (Perfetto, 1999, p. 10)

Perfetto goes on to describe how these evaluative criteria were found in the meetings to guide the specific criteria that admissions committees use at various institutions, compatible with the philosophy and goals listed above. While intended to focus on admission of students directly from secondary institutions, each could have implications for the admission of transfer students as well. In fact, there is no particular mention, other than reference to secondary school performance, of these models applying exclusively to admission process for applicants from secondary institutions. These models may very well be applicable to transfer admission as well.

Another view of the same issue is found in follow-up research conducted by the College Board, “Admissions Decision-Making Models: How U.S. Institutions of Higher Education Select Undergraduate Students” (Rigol, 2002). That research, unlike the prior work based on analysis and discussion among practitioners, was based on intensive interviews, site visits, and literature analysis for more than 100 institutions. A simplification of the principles above, based on that research, finds that institutions with goals of open access use the minimum criteria structure, while other institutions review application records for evidence of a student’s ability to succeed at, and contribute to, a

receiving institution. Further, according to this publication, the most competitive institutions will likely use some portion of those processes. However, because they will receive far more applications from students who both meet the minimum criteria and who are likely to benefit from and contribute to their institutions, they also use an element of electing the students who have demonstrated prior “success.” Success may be observed in strength of academic profile, other talents and personal characteristics, or the degree to which any of those might meet the yearly enrollment goals of the institution (Rigol, 2002). Because that study is focused – based on the criteria listed and the procedures used – entirely on admission from secondary schools, there is no direct application made to transfer admission. This view of the purposes behind freshman admission processes, however, offers interesting potential for its application to the transfer admission process. In other words, do receiving institutions follow the models from their freshman level, whether based on open access, ability to benefit/contribute, or measures of success, when developing processes for transfer admission?

### Admission Methods

The College Board study goes on to provide greater detail, and notes that nearly every school will vary, to one degree or another, on the general methodologies used to handle the evaluation of admission applications. This includes the materials that a student must submit in order to apply, from the application itself to transcripts, test score reports, essays, and recommendations. This varies slightly, particularly in the areas of quantity: how many tests, essays, and recommendations an institution requires. The study further indicates that some institutions, particularly for targeted groups of students or specialized

programs, may additionally require portfolios, auditions, financial statements, or health examinations (Rigol, 2002). While this may give some insight for the transfer process, there does not appear to be any literature on what specific records or materials are required for transfer students.

Once the application materials are received, according to the College Board study, there are several methods for handling the enclosed data. Many institutions recalculate student grade point averages to try to balance the various grading scales and methods of weighting Advanced Placement and Honors courses. Some include school quality, or additional weight for those with more competitive grading scales, in these recalculations. Other institutions create an “academic index,” an overall academic score for a student based on high school GPA (which may or may not be recalculated), rank in class, and test scores (Rigol, 2002).

**In** addition to various ways to view and weight the data, there are also numerous models **for** conducting the evaluation and determining what personnel will be involved. An **abbreviated** version of Rigol’s (2002) descriptions is included in Table A. All of the **methods** listed in the table are focused on admission of secondary school students, **although** most could apply for transfer admission. Repeated searches, however, have **turned** up no literature on methods used for transfer student admission.

Table A: Admission Processes

| Process Title                          | Explanation   | Outcome  | Institution Type most likely to use     |
|--|---|--|---|
| Multiple readers to committee          | 2 readers review each file                          | One reader presents recommendation to committee for decision   | Private selective                       |
| Team reading to decision or committee  | 2 readers review each file                          | If readers agree, decision is made.<br>If readers disagree, file is referred to committee for decision                 | Selective                               |
| Single Reader to decision or committee | 1 reader reviews each file                          | If applicant meets all criteria, decision is made.<br>If applicant fails to meet any criteria, referred to committee.  | Moderately Selective                    |
| Reader(s) to computer                  | 1 or more readers score each file                   | Computer reviews scores and makes decisions or refers to committee   | All types                               |
| Computer to committees                 | Computer scores each applicant on available data    | Files are referred to three committees for decision: meets all criteria, some deficiencies, and does not meet criteria | Moderately selective                    |
| Computer plus reader to decision       | Computer scores each applicant and refers to reader | Reader reviews computer score and makes decision   | Very large competitive institutions     |
| Computer to decision or further review | Computer scores each applicant                      | Applicants that meet all criteria, computer makes decision. If not, file is referred to a reader.                      | Large institutions with low selectivity |

The 2002 College Board study also briefly noted the possibility of a lottery system, which was a model suggested in a radical proposal from Barry Schwartz (2005), a professor of psychology studying the college selection process. He proposed that, as results of admission, in-class composition and student outcomes are completely uncertain (particularly as it may be unclear how a student may manipulate his or her information)

and there are plenty of selective students from which to choose, selective colleges would be just as well served using a lottery system to select their class members (Schwartz, 2005). Several admissions deans responded that they often took chances on students who went beyond statistics and that the balance of their class depended on the careful selection of particular attributes from their respective pools. As to the potential manipulation, Robin Mamlet, former Dean of Admissions at Stanford, noted:

There will always be ‘system gamers,’ who buy essays, pay others to take their SAT’s, cheat on finals, file fraudulent applications, and take steps to package their self-presentations so that they will look like the young people they think colleges want them to be. But we shouldn’t structure a system merely to foil those who would manipulate it. Instead we must talk with young people about the ethics of applying to college, of figuring out who they are and who they want to become. Lowering expectations is not the answer. (Mamlet, 2005, p. 24)

None of the respondents, however, seemed to address Schwartz’s main contention – that current admission process results have little or no predictive validity for student outcomes.

A newer admission process, not represented in the studies above, is typically called “percent rule” policies. This admission process, largely mandated by states, required colleges and universities to admit students based on their secondary school rank in class, often regardless of other factors. A comprehensive review of related literature (Tienda & Niu, 2005) found that these policies were based on efforts to be “fair” but created new socio-economic bias into the admission process. While of interest, since community colleges and other transfer sending institutions do not rank students, this system is unlikely to bear on transfer admission processes.

The literature outlined above clearly demonstrates that admission processes can be complex; understanding them requires careful examination. Unfortunately, little or no

such examination has been conducted on these processes for transfer admission. The only area of exception is in the way transfer admission may be governed by institutional, state, or system articulations. Unfortunately, only one articulation-focused study provided any insight into the admission process.

Healy (1991) defined articulation as “the process of providing, through communication, mutual support among high school guidance counselors, college admission counselors, and college transfer counselors in the efforts to perform college-admission-related tasks” (Healy, 1991, p.3). He noted that,

The Joint Committee on Junior and Senior Colleges (1966) addressed the need to strengthen the linkage between two-year and four-year colleges.

The committee stated that communication was, in general, inadequate and described two areas in which improvement was needed:

1. College publications should be aimed directly at potential students and cover such areas as transfer of credit, admission requirements, student profiles, support services, and success rates; and
2. Professional communication should encompass correspondence, telephone contact, feedback on transfer students’ adaptation, joint conferences, and a sharing of research findings. (Healy, 1991, 7-8)

As Healy explained, this strengthened linkage can be accomplished through formal articulations. Such articulations may include a specific policy on transfer admission, such as a specific combination of grades, coursework, and/or a degree from a two-year institution that will guarantee admission into a baccalaureate-granting institution. Healy conducted a survey of high school counselors, two-year college admission officers, two-year college transfer counselors, and four-year college admission officers. He found that, while the high school to college admission and transition process was generally perceived positively, the respondents also perceive that transfer from two-year to four-year



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institutions under-serves students. Unfortunately, the scope of the study did not include details as to how the students were perceived to be underserved and did not provide details on the admission process. This highlights, however, the importance of including articulation in any examination of transfer admission processes.

The processes above are each dependent on specific factors used to evaluate students potential for admission. “Despite the comprehensiveness of many applications, there is no way that readers can know everything about an applicant. As one admissions dean put it, whole-file review means just that, not full-life review” (Rigol, 2005, p.3). As a result, admission policies determine which criteria are used and what weight each is given.

## Admissions Evaluation Criteria

Blackburn (1990) listed the following potential criteria for admission to higher education from secondary institutions: high school transcripts, standardized test scores, essays, personal characteristics (nonacademic skills, abilities, and achievements); recommendations; interviews; and supplementary materials (portfolios, performance tapes). He also raises the question of the role of financial aid in the process describing the transition from a need-blind system. Need-blind “means that the admission committee and staff do not know which students are applying for financial aid so that the admission decision is based solely on achievements and potential” (Blackburn, 1990, p. 23). He goes on to describe the erosion of this policy, noting that “some colleges have had to resort to considering need as a factor in admission because their financial aid resources have been declining. Some admission deans hold the view that the college should not tempt the student to enroll if it cannot provide adequate financial assistance” (Blackburn, 1990, p.24). This may also be a factor in the transfer process, especially if colleges and universities reserve most of their financial aid funding for continuing students and new freshmen, to the financial detriment of new transfer students.

Rigol (2002) found a similar list, culled from over 100 factors that developed in her research. These include academic achievement, quality, and potential; direct measures (GPA, rank, scores), caliber of high school, evaluative measures; and nonacademic characteristics and attributes: geographic, personal background, extracurricular activities, service, leadership, personal attributes, extenuating circumstances, and others. She further noted that portions of these may be used in very

different ways by different institutions, and provided three major additional factors that can cross into any of those issues, or be considered separately: secondary school quality, interviews, and personal statements and essays (Rigol, 2002).

The most comprehensive analysis on the topic is the annual State of College Admission survey conducted by NACAC. Exactly 661 institutions participated in the 2004 research, representing a cross-section of U.S. four-year post-secondary institutions. The results found “the factors used to evaluate applications for admission in 2003 remained consistent with previous years. The top factors continued to be grades in college prep courses, standardized admission tests, [and] overall grade point average” (Hawkins & Lautz, 2005, p.5). Understanding how these factors may be applied to transfer admission requires a review of the literature available on each factor.

“Academic credentials are given the greatest weight in all admissions processes examined; however there were no competitive models that disregard personal factors” (Rigol, 2005). Academic credentials include grade point average, but also the more researched issues of strength of curriculum and test scores.

#### *Academic record*

Grade point average is a commonly listed criterion in admission processes, as 57% of colleges consider the GPA of considerable importance, 28% of moderate importance, and 8.5% of limited importance in the admission evaluation (Hawkins & Lautz, 2005). It is not always, however, used by schools in the same way. “Recomputing the high school GPA is one of the most common ways application credentials are standardized” (Rigol, 2005, p. 10). Little further detail is available on the use of grade

point average, which is especially notable considering its prevalent use. This is also notable since this criterion may be the easiest to transport to the transfer admission process.

Strength of curriculum, on the other hand, has received more detailed scrutiny, and greater concern. A recent ACT report noted that “we now know that simply taking core is not enough. It’s the nature and the quality of the courses students take, not only the number, that determine if they will be ready for college and work” (*Crisis at the Core*, 2004, p.7). This study also found that many students, even when pursuing core curriculum, were not provided with sufficient rigor to reach minimum proficiency for college, based on the ACT test scores (*Crisis at the Core*, 2004).

For the admissions process, this plays out as grades in high school college preparatory courses are found to be an even larger factor in the admission process than the overall grade point average, with 80.3% of colleges reporting it of considerable importance, 10.2% of moderate importance, and 3% of limited importance. This distinguishes this factor as the most important in the admission decision process, although the national survey does not include a separate question on course rigor distinct from achievements in those courses (Hawkins & Lautz, 2005). High school college preparatory courses are those that are perceived to be core curriculum in preparation for college study. For transfer students, this raises the question as to whether there is a core curriculum for transfers between institutions, a set of courses perceived to be more important to the admissions process. If that is the case, a logical follow-up question is whether such a set of courses is adequately preparing students for their further post-secondary work. For a student transferring from one institution to another, for instance,

do art courses have as much weight as a math course, and do independent study or seminar courses have comparable weight to more traditional courses? This may be particularly relevant in the case of articulation, when specific academic coursework and grades are tied to automatic admission, but also when courses or requirements at the receiving institution may be waived, raising questions as to whether those articulations establish sound admission criteria.

The subject of curriculum strength also raises the question of Advanced Placement courses for secondary school students. Klopfenstein and Thomas (2005) found that

a high school curriculum characterized by rigorous non-AP math and science courses improves the likelihood of early college success, but that AP experience confers few additional benefits. AP classes in science and economics have a significant positive impact on college persistence, but the most popular AP subjects, math, English, and history, do not. With the lone example of Hispanic students taking AP science, AP experience has no impact on first semester college GPA. (Klopfenstein & Thomas)

Possible support for this view may be found in an examination of the admission process at the University of California. Geiser and Santelices (2004) found that “the number of AP and Honors courses taken in high school bears little or no relationship to students’ later performance in college,” and “merely taking AP or other honors-level courses in high school is not a valid indicator of the likelihood that students will perform well in college” (Geiser & Santelices, 2004, p.2).

In these studies, a broadly defined rigorous curriculum is found to be influential, but the particular increase in rigor assumed by the addition of Advanced Placement courses does not appear to correlate with student outcomes. It is unclear what this means

for transfer applicant evaluation. It may be that some college curriculum and/or levels of rigor are more likely to yield higher grades in college and greater persistence after transfer. It is possible, however, that any transferable college level work, regardless of course rigor or topic, may be equally likely to predict performance at another post-secondary institution. It also raises the issue of whether grades in college level courses are equally predictive, regardless of the source institution. In other words, should grades in college courses or the quality of the source institution have greater weight in the evaluation of transfer applicants, assuming a similar set of courses?

The impact of source institution quality in the admission process also received some direct attention. Tam and Sukhatme (2004) found that including school quality in freshman decisions, when using average ACT score of graduates from a school as an estimate of school quality, improved the predictive ability of an admission index at the University of Illinois when added to grade point average, rank, and score information for each student. This raises significant questions for transfer admission, as institutional quality is often questioned when students transfer from community colleges:

There is much discussion in the literature about the academic preparation of transfer students. Atin (1985) contends that the atmosphere at community colleges is not conducive to students who aspire to a bachelor's degree. It is dominated by technical or vocational programs, and often, students involved in these programs are not interested in degree achievement . . . According to Eaton (1994) community colleges have failed to provide a liberal arts foundation that facilitates transfer. Although their curriculum may be considered adequate, it is a weak foundation for students who will be advancing to higher academic pursuits. (Kippenhan, 2004, p. 14)

The most extensive area of analysis of admission factors, however, has been conducted on the use of standardized test scores in the admission process. It is interesting

that no test is currently provided nationally with the intention of providing data for use in transfer admission, while extensive testing is available for prospective freshmen and graduate students.

### *Standardized Tests in Admissions*

Test scores have been the second most important factor listed by colleges for their decision process since the State of College Admission survey began in 1993. In 2004, 60% listed test scores of considerable importance, 28% of moderate importance, and 5% of limited importance (Hawkins & Lautz, 2005). “Standardized tests are the most common requirement for college admission . . . Those of us who have worked at colleges where test scores are not given great weight try hard to dispel the fear of tests in high school applicants, but the fact remains that students applying to most four-year colleges and universities must take standardized tests” (Ancrum, 1992, p. 20).

The largest provider of test score data to higher education, The College Board, provides guidelines for use of scores in the admission process:

Users are encouraged to consider scores in conjunction with other factors such as students’ grades, co-curricular activities, writing samples, personal statements, interviews, portfolios, and recommendations when making admission decisions . . . Test scores have long proved very useful in helping admissions and placement staff and other educators to better understand and interpret students’ qualifications and preparation. Students in more than 27,000 secondary schools throughout the United States experience vastly different educational models and grading systems. In many situations, test results provide the only consistent and objective measure of students’ abilities and achievement in specific areas. (*Guidelines on the Uses of College Board Test Scores*, 2002, pp. 1-2)



This leads to a series of articles and publications supporting the use of scores as a factor, suggesting that “there is a clear relationship between not only SAT scores and graduation rates, but also between SAT scores and how long it takes to graduate” (*The New SAT*, 2005). This analysis is considerably weakened by the inherently confounding data of test score use. If scores are currently used as a significant factor in admission, and if schools with high graduation rates tend to be more competitive in their admission process, then applicants with higher scores are more likely to enroll at schools with higher graduation rates. In other words, the correlation may be more self-fulfilling (schools with already higher graduation rates selecting students with higher scores) rather than a predictive indicator.

This is not to say, however, that the scores may not have predictive value.

Although a large number of large-scale studies have demonstrated an increase in predictive validity when SAT scores are added to high school grades, this increment is often described in terms of a seemingly very small increase in variance. This may have led to the erroneous belief among test critics and others that students with low SAT scores would perform, on average, almost as well in college as students with high SAT scores. Using a sample of 41 colleges, the current study shows substantial differences in the percent of students who succeed (defined by a 2.5 or 3.5 college grade point average [CGPA] at the end of one year or four-years in college) by SAT score level, even when intensity of high school curriculum and high school grades are taken into account. (Bridgeman, Pollack, and Burton, 2004)

The 2004 study by Bridgeman, Pollack, and Bruton cited above found high school curriculum and performance to be accurate predictors of student performance in college. Since the study was sponsored by The College Board, the owners of the SAT, it may not be surprising that the study also found the SAT to be a good predictor, and that the SAT

added to predictive value when combined with curriculum and performance. While the sponsorship of the testing service may raise some doubts about the study, the methodology appears sound. The study also, however, highlighted that small differences indicated little or no variance in achievements, and defined a 40-point difference as a small difference. The research suggested that a difference of approximately 190 points would be necessary to have a significant impact on predicted performance (Bridgeman, Pollack, & Burton, 2004).

In another study, Noble & Sawyer, 2002) found that the combination of the ACT and GPA was more predictive than either alone, especially as GPA was more predictive than ACT score at low levels of success. GPA was not useful at distinguishing likely higher levels of success, while ACT had a reasonable effectiveness for that purpose.

Despite the support this data provides for test scores as an admission factor, there are strong arguments against their use as well. Stories in *The New York Times* (Dec. 20, 2004) and *Business Week* (Feb 2, 2005) highlight the expanding anxiety of students and the increasing public concern over the importance of the tests. This follows some of the literature noting the increase in students' efforts to enhance scores, such as an article in the press suggesting that student use of drugs to enhance test performance is increasing (Zamiska, 2004). This follows an assertion in the literature that "scores are the most easily manipulable [sic] measures of anything that might suggest quality in education . . . . Even the College Board, which administers the SAT, gave up on that argument years ago when finally conceding that coaching can affect results" (O'Neill, 2005).

Additionally, the literature suggests that, regardless of the degree to which the tests predict performance, they also include unjustifiable bias. For example, Altermatt

and Kim explored, by examining prior research, whether anxiety could be the cause of gender differences on standardized tests, and recommended asking demographic questions after, not prior to, testing to help alleviate some of that anxiety (Altermatt and Kim, 2004.) They still, however asserted a gender bias to the tests themselves.

Society knows well that males outperform females on mathematics portions of college entrance examinations. In 2003, for example, males scored an average of 537 points on the mathematics section of the scholastic aptitude test (SAT), whereas females scored an average of 503 points. Less well known is the fact that males also show a slight advantage on the verbal portion of the SAT. In 2003, males scored an average of 512 points, whereas females scored an average of 503 points. These gaps appear to be closing, but are still a significant source of concern for students, parents and educators alike. (Altermatt and Kim, 2004, p.7)

In addition to potential gender bias, there is also some indication that the tests may be biased with regard to income level and ethnicity. The National Center for Fair & Open Testing (Fairtest) is a nonprofit organization that, “works to end the misuses and flaws of testing practices” ([www.fairtest.org](http://www.fairtest.org)). Fairtest published a report on their website based on data from the ACT High School Profile Report: High School Graduating Class of 2002 National Report titled, “The ACT: Biased, Coachable, and Misused” ([www.fairtest.org](http://www.fairtest.org)), claiming that ACT scores are directly tied to income levels, and ascribing this to a theory that those with greater incomes can afford better coaching. Some authors assign a significant detrimental impact to these biases: “Because of the gap between majority and minority students’ test scores, a greater proportion of minorities are rejected despite their capacity to succeed” (Beatty, et al., 1999).

To complicate the analysis, in 2005 the College Board dramatically changed the SAT to raise the level of math and add a writing section, while the ACT added an

optional writing section. Media coverage of this issue has been extensive, and largely negative, centering around the addition of the writing test section. Examples include, “New SAT Writing Section Scores Low” in *The Christian Science Monitor* (Franek, Feb. 15, 2005), “It’s Bigger – is it Better?” in *US News and World Report* (Ewers, March 14, 2005), and “New SAT Writing Section Draws Sharp Criticism from Association of English Teachers” in the *Chronicle of Higher Education* (Bollag, May 4, 2005). The Fairtest organization also placed several critical articles on their website, such as “Test Maker Greed Spurs New Writing Test” (2005). The College Board supplied numerous arguments in support of these changes. Because these appear to be the only positive statements about the new test, a sample of their supporting language is provided below.

A primary goal of adding a writing section to the new SAT is to provide admission officers with important additional information in the admissions process. Three scores – in critical reading, math, and writing – can be expected to have a greater predictive power of a student’s probable success at a given institution than two scores in verbal reasoning and math...the College Board sponsored a study to evaluate the predictive ability of a prototype of the new SAT writing section, and the results showed that the prototype was a valuable predictor of freshman grade point averages and English Composition grades. This finding suggests that new SAT writing scores will be a better tool for making admission and placement decisions. (*The New SAT*, 2005)

The arguments both for and against the SAT in general, as well as the recent changes to the SAT, highlight some important issues in considering whether standardized tests should have any role in transfer admission. Two additional issues related to standardized testing have relevance to possible use in transfer admission, the ability of some students to gain access to higher scores and score optional admission process.

Untimed versions of the SAT and ACT may be offered to students with demonstrated learning disabilities. For many years, the College Board let colleges and

universities know which students had taken untimed versions, a practice known as flagging. The College Board changed this practice, and Cahalan-Laitusis, Mandinach, and Camara (2003) conducted a study of admissions officers, guidance counselors, and disability service providers exploring practices post-flagging. They found that these practitioners believed that some students are “gaming” the system to inappropriately get access to the untimed test. The researchers also found that admissions officers perceived an increase in untimed test use. Admissions officers in the survey demonstrated a strong preference for flagging the untimed scores, stating this as a desire to reduce misuse but reporting that they did not intend to use the information in the admission process. Most guidance counselors reported an increase in untimed test use, and this was markedly higher among private secondary school counselors. Although the researchers did not have access to College Board data on untimed test use, they found that the use of untimed tests was increasing most among affluent students and suggested that this raised possible additional socio-economic disparities for the tests.

Issues of test preparation also raise this socio-economic disparity. The aforementioned stories on the Fairtest website list test preparation as a likely score influence, noting the College Board itself offers preparation services, and claiming that access to these services is driven by affluence ([www.fairtest.org](http://www.fairtest.org)). The potential for students to gain access to untimed tests and to test preparation based on their ability to pay could raise issues of particular concern to the transfer process, since (as noted above) community college students are far less affluent than their four-year counterparts.

Colleges and universities have also been exploring making the use of test scores optional for prospective freshmen. Bates College began making scores optional in 1984,

and compiled a study showing that their methodology, based on academic record, was equally predictive with or without SAT scores (Hiss, 2004). This modified use of standardized tests, allowing the student discretion in their use, may also have implications for transfer admission.

These score-optional policies highlight the efforts of colleges and universities to find ways to use standardized tests responsibly. Noble and Sawyer (2004), following up on their 2002 study noted above, studied the predictive potential of high school GPA and ACT scores at 84 post-secondary institutions. They found that both had predictive value and that GPA was the stronger predictor of overall performance (above a 2.0). They also found that the ACT score was the better predictor of higher grade achievement, reinforcing their earlier finding that combining the ACT or SAT score with high school GPA was a more powerful predictor of student success (Noble and Sawyer, 2002). This is supported by other recent studies documenting the success in correlating standardized test scores with performance in college (*The New SAT*, 2005; Bridgeman, Pollack, and Burton, 2004). These studies do not take into account the students who stopped out, whether they were transferring to other institutions or whether they left the institution for academic reasons. No study was found that included such stop outs, although data on such a population could alter the findings of studies such as those described above.

The National Research Council steering committee assembled a board on testing and assessment that held workshops to review myths and realities, based on expertise and data review, of the use of standardized testing in college admissions. This may be the most comprehensive analysis of the use of standardized tests, and included the leading experts in the field. They found for both the SAT and the ACT:

In practice, both tests have an average correlation with first-year college grades that ranges from .45 to .55 . . . The steering committee concludes that the standardized tests available today offer important benefits that should not be overlooked in any discussion about changing the system:

- The U.S. educational system is characterized by variety. Public, private, and parochial schools each apply their own standards, and public schools are controlled locally, not nationally. In such a system, standardized tests are an efficient source of comparative information for which there is currently no substitute
- Standardized tests can be provided at a relatively low cost to students and offer valuable efficiencies to institutions that must review thousands of applications.
- Standardized tests provide students with an opportunity to demonstrate talent. For students whose academic records are not particularly strong, a high score can lead admissions officers to consider acceptance for a student who would otherwise be rejected. (Beatty, Greenwood, and Linn, 1999, pp. 20-22)

In other words, the data supports the use of standardized tests in admissions, and the volume of applications makes them nearly a necessity, but their use must be limited to situations in which the score gaps are large enough to be significant. While that research provides a best practice for the use of standardized tests in the evaluation of applicants for freshmen admission, there is no comparable data on their use for transfer applicants. One major reason may be the lack of a standardized test intended for use in transfer evaluation, as opposed to freshman evaluation with the SAT and ACT, and to the many specialized graduate tests (GMAT, GRE, LSAT, etc.). Despite this lack of specific test or best practice, there is some evidence that standardized tests are being used in transfer admission (Cuseo, 2001). It is not clear from the limited literature on the subject how prevalent this practice may be or whether any other standardized tests may be in use that are more targeted for transfer students. It highlights, however, the need to explore that

subject, and the possibility that a standardized test might be designed, or be used more widely, for the purpose of transfer evaluation in the future.

### *Nonacademic criteria*

The extensive data on the use of grades, curriculum, and scores are not, unfortunately, matched by the volume of research on the use of nonacademic factors, despite their growing use. “In 2004, the application essay was valued as equally important as a student’s rank in class by colleges and universities. This marks a convergence point in a ten-year trend” (Hawkins & Lautz, 2005). While the popular press suggests the essay is a small part of admissions (Russell, 2005) some colleges welcomed the new SAT writing component as a way to be sure of the authenticity of student essays (McGrath, 2004). Other than the non-cognitive variable studies outlined below, the research does not specify how the essays were or should be used in the admission process, and the same may be said of recommendations. As Ancrum wrote:

Letters of recommendation are a tool used to gather more information about candidates from those who are familiar with the applicant’s abilities and potential . . . [however], recommendations do not always provide a complete, accurate, or honest appraisal. Counselors are asked, and in most situations provide, recommendations for students whom they know little about. Many times these recommendations are based on teachers’ comments, in which case only the best are included. (Ancrum, 1992, p. 21)

Counselor and teacher recommendations were ranked of similar importance in the admission process, with 18.4% and 18.1% ranking them of considerable importance, respectively (Hawkins & Lautz, 2005). If used similarly in transfer admission, this may be very difficult for transfer students who are unlikely to get to know their academic



counselors at this level of depth, and who also may not have established close relationships with instructors.

The NACAC survey ranked interviews just below recommendations in importance to the admission decision, and 8.7% of schools listed interviews of considerable importance, while 28.9% reported them of moderate importance (Hawkins & Lautz, 2005). This is surprising considering the findings in other research. Rigol asserted that, “Relatively few institutions actually require interviews of all applicants” (Rigol, 2005, p. 10), while Ancrum felt that “the college interview has become more of a recruitment activity than a tool in admission decisions” (Ancrum, 1992, p. 22).

Extracurricular and work activities were only a considerable factor for 7.5% of institutions, while it was of moderate importance to 42.1%. The press asserted a need to be deep in activities, particularly community service, and not just do activities as an admissions effort (Randall, 2004). This may be an important issue for transfer students since college level extracurricular and work experiences may be very different than at the secondary level.

The use of legacy, whether a close relation of the applicant has previously attended an institution, has also received attention, even among students themselves. An article in The Daily Pennsylvanian, for instance, focused on the debate over legacy admissions (Haigh, 2004). “Sixty-five percent of colleges attribute some level of importance to a student’s alumni relations” (Hawkins & Lautz, 2005, p. 38); however, many of these, 44.3 percent of institutions, consider the factor of limited importance. Likewise, “a student’s demonstrated interest in attending an institution is an important ‘tip’ factor in the college admission decision. More than half of all colleges consider a

student's interest in the institution during the admission process" (Hawkins & Lautz, 2005, p. 5).

The NACAC study also noted ability to pay, subject test (SAT II, AP, IB), and state or county of residence as important admission factors, although, like the interview, work and extracurricular experience, race/ethnicity, alumni relations, and demonstrated interest are all listed as less crucial to the process than direct academic factors and seem, as the authors describe them, to function more as these "tip" factors. It may be worth noting that "Institutions that accepted fewer applicants placed slightly higher emphasis on the 'tip' factors than institutions that admitted most applicants" (Hawkins & Lautz, 2005).

There are regular press references regarding the use of race and ethnicity in the admission process, including: using race as a factor (Zimar, 2004; Mangan, 2004), the impact of not having it as a factor (Trounson, 2004), general trends in enrollment along racial/ethnic lines (Schmidt, 2005; Berman, 2004), and discussion of political battles over policies that are purported to maintain access if ethnicity is not used as a plus factor (CBS, 2004; Eaton, 2005; Fischer, 2005; Kriel, 2005; Rodriguez, 2005). Contrasting this coverage, colleges and universities list race and ethnicity as minor factors in admission. Only 2.2% of institutions report race and ethnicity of considerable importance, 16.4% of moderate importance, and 24% of little importance (Hawkins & Lautz, 2004). Some studies (example referenced in Mangan, 2004) suggest that using race as a plus factor in admissions without regard to predictive value of success results in students attending institutions where they are more likely to fail. Issues of whether or not a student is a first-generation college-bound student along with socio-economic status are often

intertwined with these subjects. These combined topics are a particular focus of research on “Noncognitive variables” or NCVs.

As the data above notes, the factors most often used in the evaluation of freshmen are cognitive (curriculum, grade point average, and test scores). In addition to the other factors listed, colleges also make use of noncognitive variables (NCVs), often using tests or essay questions designed to elicit standard measures of such factors. Much of the literature on the use of NCVs as admission criteria has been conducted by William Sedlacek. Sedlacek (2004) explains:

Although noncognitive appears to be precise and scientific sounding, it has been used to describe a variety of attributes... Willingham (1885) studies high school honors, high school follow-through, personal statements, and reference and concluded that they added to the prediction of college success. Other researchers have included student involvement (Astin, 1993); academic and social integration (Milem & Berger, 1997; Tinto, 1993); study skills (Nisbet, Ruble, & Shurr, 1982); and socioeconomic background, institutional, and environmental variables (Ting & Robinson, 1998) in their conception of noncognitive variables related to student success. (p. 36)

He defines these factors as, “variables relating to adjustment, motivation, and student perceptions, rather than relying solely on the traditional verbal and quantitative (often called cognitive) areas typically measured by standardized tests” (Sedlacek, 2004, p. 7). He goes on to note:

There are eight noncognitive variables (NCVs) identified by extensive research in this area: Positive self-concept, Realistic self-appraisal, Successfully handling the system, Preference for long-term goals, Availability of strong support person, Leadership experience, Community involvement, Knowledge acquired in a field. The goal of using noncognitive variables is not to *substitute* this approach for the cognitive focus more commonly employed in assessments, but to *add* to the range of attributes that we consider in making the many judgments required of us all. (Sedlacek, 2004, p. 7)

Sedlacek identifies several tools for measuring these variables, such as short answer questions, essays, portfolios, and application review. In addition, he highlights the Noncognitive Questionnaire (NCQ), a tool designed specifically to test the eight noncognitive variables listed above, citing over a dozen studies demonstrating that the NCQ can be predictive of student performance in college (Sedlacek, 2004).

The results of the tools demonstrating these non-cognitive factors are often contrasted in the literature with the ones for cognitive factors. One example analyzed female students for noncognitive outcomes from a series of questions and compared the predictive value of those results with the predictive value of SAT scores for the same students (Ancis & Sedlacek, 1997). The researchers reinforced that some noncognitive factors can be predictive, and that the SAT remains a legitimate tool. The authors also noted that their regression analysis, which showed that the use of some noncognitive factors with the SAT made for a much stronger predictive model of academic performance, demonstrated the limitations of the SAT. Their results also, however, demonstrate the challenges of using noncognitive factors, as one factor, positive self-image, was found to have a negative relationship to academic performance.

A study by Hunter and Samter (2000) took a different approach. Instead of arguing for noncognitive factors on their own value, they argued for the value of adding additional information to SAT scores to eliminate what they called “false negatives” – students who out-performed their scores. A student’s SAT score, for instance, may be much lower than his or her secondary school record would predict, and the Hunter and Samter approach would seek to offer an alternative view for such students. They used a barrage of different tests of noncognitive factors and created 29 sub-scores of specific

characteristics explored across the tests. They found five of these sub-scores yielded, in combination, predictive models that were “moderately to highly significant.” They suggested that using a test to identify sub-scores in five noncognitive areas: creative, truth-seeking; adjusted; adapting; and social; to produce an aggregate “ACCESS” score for students who underperformed (scores below 1000) on the SAT. They suggested that using high student ACCESS scores to offset these low SAT scores would better predict college performance, thereby serving to reduce false negatives (Hunter & Samter, 2000). This offers an interesting approach since the only students that would be impacted would be those for whom standardized scores are not reflective of a strong high school performance. Using such a test for only one segment of the applicant pool, however, may pose unwelcome challenges of bias, since only students in such a situation would benefit.

A study of first-generation college students examined the noncognitive variables related to self-regulated learning. The resulting self-regulated learning factor, when added to ACT scores, created a result that was much more predictive of college GPA than using ACT score alone (Naumann, Bandalos, & Gutkin, 2003).

The study of noncognitive variables includes research indicating that the variables that are most predictive of performance vary for different groups of students. A large study, for instance, found that “the overall relationship to college retention was strongest when SES [socioeconomic status], HSGPA [high school grade point average] and ACT Assessment scores were combined with institutional commitment, academic goals, social support, academic self-confidence and achievement motivation” (Lotkowski, Robbins, & Noeth, 2004). This use of socio-economic status to vary evaluation criteria is similar to the idea that the criteria should vary by race or ethnicity. Research conducted comparing

the performance of Caucasian and Native American students found that “SAT scores were less effective than the noncognitive variables in predicting the students’ GPA” (Ting & Bryant, 2001). Additionally, in 2003, Ting studied first-generation students, and based on his results recommended adding noncognitive factors to their evaluation, in particular community service, as a proxy for several factors, in conjunction with high school GPA and test scores in awarding admission (Ting, 2003).

One study by Thomas and Kuncel, as reported in The Chronicle of Higher Education, purported to demonstrate that the tool recommended by Sedlacek and others for estimating noncognitive values, the Noncognitive Questionnaire, failed to demonstrate predictive validity (Glenn, 2004). As Sedlacek noted in the article, however, there are many different versions of the NCQ and other ways to estimate noncognitive traits. Thomas and Kuncel asserted that much of the research supporting noncognitive variables use weak or inappropriate statistical tools. Several of the studies above, however, especially those using noncognitive indicators in conjunction with grades and test scores, clearly demonstrated an increased ability to predict student performance, as determined by first-year college GPA and second-year persistence.

Sedlacek is a particularly strong advocate for the use of noncognitive variables for “nontraditional” students (Sedlacek, 2004), and the studies on the topic have been focused on students designated as nontraditional, or contrasting between those designed as traditional and nontraditional. Questions remain in both the literature on NCVs and in the reports on the use of race and ethnicity in admissions on how applicants are best identified for these purposes. The criteria by which a student may designate him or herself as a member of a particular nontraditional group and how that information can be

verified should be a topic of future research, and it limits the practical application of the NCV theories. Furthermore, while these issues may be explored actively at the freshman level, it remains to be seen whether NCVs have any potential, or are being explored at all, for use in transfer admissions.

Despite the literature on the usefulness of noncognitive variables, there is no literature suggesting that these factors are being weighted in the admission process in a systematic way. The three most comprehensive studies of admission practices at the undergraduate level (Blackburn, 1990; Rigol, 2002; Hawkins & Lautz, 2004) note only a broad use of these concepts. In fact, the national study of admission practices (Hawkins & Lautz, 2004) studies only the use of tools institutions might use to obtain this information, such as recommendations, essays, and test scores, not the actual factors suggested by Sedlacek and others. It appears that these practices have not yet developed to the point of appearing in common freshman admission practices, and the same may also be true for transfer admissions.

#### Articulation as an Admission Process

One factor that exists for transfer students, but that rarely plays a role for freshman applicants, is articulation agreements. Articulation agreements are arrangements between academic institutions, generally community colleges and baccalaureate-granting institutions. The arrangements can, but do not always, grant admission to students from the sending institution if students meet set standards. Some of these arrangements have been mandated and/or established by state higher education coordinating bodies.

Kintzer and Wattenbarger (1985) define articulation as ‘the entire range of processes and relationships involved in the systematic movement of students interinstitutionally and intersegmentally throughout post-secondary education,’ while transfer is one process of articulation representing ‘the mechanics of credit, course, and curriculum exchange’ (p.iv). Articulation and transfer agreements facilitate the movement of students between different institutions by establishing guidelines for admission and/or transfer credit and typically are constructed on the basis of courses, academic majors, departmental curricula, or general education core. (Gutierrez, 2004, p. 119)

The popular claim is that “transfer agreements based on the attainment of the associate in arts degree simplify the articulation process for community colleges and receiving institutions” (Knoell, 1990, p. 26).

While these agreements, which can detail criteria by which a student may gain automatic admission, seem to make the admission process for transfer students simple and easy to understand, that it not always the case.

This uncertainty [of whether or not the student will be admitted] is not diminished by those universities whose articulation guides for community colleges list in considerable detail the sequences of courses to be taken by students pursuing particular baccalaureate-degree majors but also caution students that the completion of such courses with satisfactory grades does not insure their admission with advanced standing to these programs. (Knoell, 1990, p. 20)

In other words, community college students may follow the guidelines for admission to a baccalaureate-granting institution and still not gain the access to programs afforded to native students. So the researcher suggests,

One approach to reducing the problem of limited access involves the development of closely articulated lower-division programs by pairs of institutions, with some type of guarantee that community college students who complete such programs with grades that are specified as part of the agreement will be admitted to the university with full credit for the lower-division. (Knoell, 1990, p. 24)

This practice of more detailed agreements may answer a variety of concerns for transfer applicants, and may even be taken to the start of the community college experience, but may not answer all concerns.



A variation on the contract approach is the joint admission programs as practiced by some institutions in the State University of New York. In September 1985, some four-year colleges of arts and science cooperated with two-year public colleges in admitted freshmen who would begin their work in the two-year colleges and be guaranteed a place in the junior class when they completed an associate degree and met other conditions. Supporters of the program cite benefits to students in both types of colleges, such as increased retention and better flow of transfer information. At the same time, critics point out inconsistencies in the treatment of students by the four-year institutions with respect to the baccalaureate-degree requirements that the students must meet after transfer. (Knoell, 1990, p. 25)

Most information and research on articulation has focused (with the exception of a small section in Knoell, 1990) on the transfer of credit and access to programs once attending an institution, rather than the ways in which articulations may govern admission processes and standards (Sullivan, Dyer, & Franklin, 2004). Unfortunately, even the limited focus on admission practices in articulation has not detailed the extent of their use nor their usefulness in predicting transfer student success.

Given the multitude and complexity of articulation practices nation-wide, one cannot characterize 'good' practice outside the context of an individual state's educational governance and sociopolitical circumstances (Bender, 1994; Tobolowsky, 1998). Regardless of whether these practices are 'good,' several common patterns are evident: First, despite changes in students' enrollment patterns, even the newer articulation and transfer policies focus almost exclusively on the traditional view that students transfer solely from two-year to four-year colleges (the 2-4 transfer) (Rifkin, 1998b; Townsend & Ignash, 2001; Wellman, 2002). Second, state-level agreements tend to focus on transfer between public institutions and do not take into account the possibility of transfer to or from private or for-profit institutions. (Gutierrez, 2004, p. 123-4)

Part of this complexity is caused by the various ways that articulations develop. "Agreements favoring articulation can be entered into via voluntary commitments between institutions; can be mandated by state law; or simply may be 'encouraged' by state policies." (Gutierrez, 2004, p. 119). The mandates and incentives for entering into such agreements seem to be expanding.

According to the Education Commission of the States (2001), 30 states have passed transfer legislation; 40 states have statewide cooperative agreements between institutions; 33 states have developed systems for transfer data reporting; 18 states offer additional incentives, such as financial aid or guaranteed transfer credit, to support the transfer process; 26 states have statewide articulation guides; 23 states streamline the articulation process through a common core curriculum; and 8 states provide common course numbering systems. (Swanson and Jones-Johnson, 2004, p. 134)

Articulations are also initiated by community college faculty as a way to use admission to baccalaureate programs to encourage community college persistence and graduation. “It was suggested that articulation agreements that provide incentives for degree completion prior to transfer, such as priority or guaranteed admissions, also could improve student retention and degree completion rates. (Cuseo, 2000; Ford Foundation, 2001)” (Gutierrez, 2004, p. 127). These many different sources, types, and governing structures for articulations have provided little information on how successful these agreements are in fostering transfer student success beyond the period of admission and transition.

Articulation agreements do, however, offer a very simple process, both for students and for the receiving institutions. By using them, a competitive institution can offer an admission process that works as simply as that of the open enrollment institutions, using only a set group of criteria, and avoiding the detailed review generally conducted for freshmen applicants. This is especially important because the more comprehensive the review, the more expensive to the institution (Rigol, 2005).

## Transfer Student Admissions, Enrollment, and Performance

In addition to the limited information on articulation, there are a handful of studies that provide some insight into transfer admissions (Ancrum, 1992; Cejda, 2004; Cuseo, 2003; Gutierrez, 2004; Hagedorn, et al, 2003; Jacobs, 2004; Knoell, 1990; Maryland State Higher Education Commission, 2003; Palmer, et al, 1994; Peter & Carroll, 2005; Sullivan, Dyer, & Frankling, 2004; Suskind, 1997; Swanson & Jones-Johnson, 2004). It is important in reviewing them to note the confusion about identifying who is included in transfer admission processes:

Once upon a time, the assumption was that ‘the transfer student’ was a young person who, for reasons of finance or convenience, attended a local two-year institution for two years before transferring to a four-year college or university. Today, the ‘2-plus-2’ model is only one of many. There are now ‘reverse transfers’ (4-year to 2-year), ‘lateral transfers’ (2-2 or 4-4), and ‘swirling students’ (co-enrolled in two or more institutions simultaneously), among other permutations. (Lauren, 2004, p. i)

Likewise, a comprehensive review of data from National Center for Education Statistics detailed the many patterns possible for transfer students. These included not just students starting at one institution and transferring to another, but students who dual enrolled, transferred back and forth, and attended multiple (at times numerous) institutions (Peter & Carroll, 2005).

As the analysis above indicates, it is not always clear, from the standpoint of an admissions officer, who is considered in the “transfer” process. Ancrum also reported on this confusion in his study of admission practices at post-secondary institutions, “Some institutions require that a transfer have 15 to 30 credits of previous college work . . . At other institutions, a transfer student is any person who has earned any college credits after secondary school graduation; thus, transfer students might enter as freshmen,

sophomores, or juniors, depending on their previous academic experience” (Ancrum, 1992, p. 17). Beyond the level at which transfer students enter an institution, there is also the source of their prior experience to consider:

Townsend (2001) discusses transfer students in terms of those who start their career at a community college and those who start at a four-year college: they may transfer prior to completing a degree, transfer having earned an associate of applied arts (Occupational program) degree, or go back and forth between two- and four-year colleges (‘swirl’). (Swanson and Jones-Johnson, 2004, p. 134)

These varied definitions may be part of the reason there is so little research on transfer admissions. The largest study directly on topic (Knoell, 1990), for instance, did not look directly at institutional policies, but instead used a combination of interviews with policy administrators, transfer data, and policy documentation to produce a review of admission policies for transfer students (the report also calls them “students with advanced standing”). Not surprisingly, that research noted that, “the amount of attention that states and institutions give to the admission of freshmen exceeds that given to admission of students with advanced standing” (Knoell, 1990, p. 20).

The author goes on to report that the lack of attention to the issue extends the confusion around transfer admission issues. “A major finding of this study is the lack of clarity in many states about the requirements and standards that transfer applicants must meet in order to be admitted with advanced standing” (Knoell, 1990, p. 20). The report goes on, however, to provide at least some insight into the factors considered in the process:

When the number of qualified applicants for advanced standing exceeds the number who can be enrolled, the best qualified are usually selected – sometimes taking into account such variables as place of residence, ethnicity, amount of coursework completed, or enrollment in a community college rather than another four-year institution. (Knoell, 1990, P. 24)

The report later notes:

Four-year college and university policies for admitting undergraduate transfer students vary widely from ‘open admission’ for anyone with a grade point average of ‘C’ or better in community college coursework, to ‘selective admission’ for those who would have been ineligible for freshman admission on the basis of their high school record. Admission policies also vary from subjective or unclear in terms of standards to be met, to specific and highly prescribed. With some exceptions, increases in university requirements and standards for freshman admission are not producing changes in transfer and admissions policies . . . One conclusion about admission that was reached in the earlier study continues to be valid today: Some universities with selective admission standards are admitting community college transfer students with no more than a C average on some minimum amount of coursework, without assessing such students’ chances for competing successfully with ‘native’ students. (Knoell, 1990, pp. 63-64)

Evaluating the transfer admission processes requires measures of success. While some of these, as noted above, have been GPA at prior institutions and persistence to graduation, another way to explore transfer student success is to compare them with “native” students. This has been of particular interest to researchers exploring outcomes for students transferring from community colleges.

Students who begin higher education at 2-year colleges with the intention of achieving a baccalaureate degree will receive, on average, 15% fewer B.A. degrees than those who enter higher education at 4-year institutions, even when controlling for students’ SES background, academic ability, high school achievement, and educational aspirations at college entry (Astin, 1975, 1977, 1993; Pascarella & Terenzini, 1991). (Cuseo, 2001, p. 3)

Because those studies include all community college students, not just those who have made it through the admission process to baccalaureate-granting institutions, the factor is not entirely relevant to this study. This highlights, however, the possible distinction between students starting in the community college and those native to baccalaureate degree granting institutions.

This performance may vary when looking at select students, those who enter baccalaureate-granting institutions with higher academic achievements, an associate

degree, or just more credits. “Research studies, primarily of community college students, report varying results regarding GPA performance of students during the first semester of transfer . . . according to the NSSE [2002 National Survey of Student Engagement], *senior* transfer students ‘appear to be performing academically on par with non-transfer students in that they report comparable grades and similar degree of academic challenge’ (p.22)” (Jacobs, 2004, p. 4). The NSSE study noted, however, that senior transfer students reported lower levels of interaction and campus involvement than native students (NSSE Viewpoint, 2002).

The performance may also be more comparable once students are past an initial transition period. “Appreciable differences between the overall grades of native and transfer students in upper-level course work rarely exist following the ‘transfer shock’ of the first semester” (Sullivan, Dyer, & Franklin, 2004, p. 103). Since the limited research available indicates that transfer students are as likely as native students to be successful, similar factors to those in use for freshmen may be predictive of that success. Although there is no specific research to support or refute that contention, there are some studies that indicate which factors might be predictive.

Typical of broader research on the subject of transfer students, some studies focused on analysis of transfer patterns, of which students transferred to institutions at what rates (Palmer, et al, 1994; Maryland State Higher Education Commission, 2003; Peter & Carroll, 2005), on progression within the community college towards transfer readiness and actuality (Hagedorn, et. al. 2003), or on the transition process from community college to baccalaureate institution (Berger & Malaney, 2001), but did not explore or suggest how these patterns might (or might not) have been affected by

admission practices at receiving institutions. While the studies hold interest from the standpoint of understanding the many ways that students transfer and the challenges they face, they offer little insight as to how admission practices are or should be conducted for these students.

The literature does seem to infer a correlation between associate degree completion and future achievement of the bachelor's degree (Palmer, et al, 1994).

“Recent studies show that students who transfer to universities with a large number of credits or with an associate degree tend to do better than those who transfer with only a few credits; in fact, they perform as well as native students” (Sullivan, Dyer, & Franklin, 2004, p. 102). Likewise, “In a nationwide study of practices examining transfer and articulation, the Ford Foundation (2001) found a positive correlation between number of credit hours earned at the community college level and the likeliness of attaining a bachelors degree” (Gutierrez, 2004, p. 126). While other literature refers back to these studies (Pope, 2004, for instance), it is not clear whether the associate degree itself is an indicator of performance, or may be correlated for a variety of other reasons (such as greater articulation of coursework for those with the associate degree, or higher academic or socioeconomic profile among associate degree completers).

Although the literature indicates that larger amounts of credit, and/or attaining an associate degree, are potential indicators of student success, it is less clear whether there is evidence that this is an admission factor outside of articulation agreements. One large study of 15, 278 transfer students from community colleges to 50 baccalaureate granting institutions looked specifically at the issue of whether achieving an associate degree had an impact on students transfer patterns and found that it was not a factor (Palmer, et al,

1994). While they did not specifically examine whether associate degree attainment was used in admission processes, it was clear in this study that the transfer pattern did not reflect a likely emphasis on holding an associate degree as a plus factor for admission.

Type of community college degree is also used as an admission factor in some articulations. This factor is particularly interesting as there is evidence in the research that the rate of transfer is not correlated to the degree a student is seeking at a community college. “The transfer rate of community college students who are in vocational-technical programs has been found to equal or exceed that of students who are in general education (transfer track) programs (Prager, 1999). These results call into question the validity of drawing strong distinctions between community college students as being either ‘transfer’ or ‘nontransfer’ tracks (Harbin, 1996)” (Cuseo, 2001, p.4).

Adelman (2005) used data from the grade-cohort longitudinal studies of the National Center for Education Statistics to develop “portraits” of community college students. He observed several ways to distinguish these students: age, institutional type, education expectations, and transfer pattern (Adelman, 2005). Many of these factors might lend themselves to use as admission factors, but none have been explored in the literature. Additionally, “the literature search did not reveal any studies that provided a national perspective on the commuter or family status of nontraditional students enrolled at two-year institutions” (Cejda, 2004, p. 164). Likewise, this review found no studies that these factors have been explored for transfer students, despite their potential influence on success.



## Literature Review Limitations

While there is a wide variety of literature relevant to the topic, the methodology of that literature varies greatly, and to some extent limits the applicability of any findings. Before these findings are provided, an overview of the volume of literature and these methodologies is first provided.

Several researchers conducted surveys, and in most cases these were described as surveys of experts (Calahan-Laitusis, Mandinach, & Camara, 2003; *Improving Access to the Baccalaureate*, 2004; Rigol, 2003; Sanders & Poynter, 1989). These experts were described as admissions officers, guidance counselors, transfer counselors, or just simply as experts in the field of admissions. Many of the surveys included several different groups within these categories, and in general, these vague descriptions were all that was offered—no specific credentials or data on participants, beyond institutional data, were provided. Two surveys differed as they gathered student perceptions (Aslanian, 1999; Buckley, Mahaffey, & Turner, 1996).

Along with more formal surveys, a number of key articles and publications were products of expert panels, individual interviews, or group colloquium (Ancrum 1992; Beatty & Linn, 1999; Bond, Merrill, & Smith, 1997; O'Reilly, 1999; Perfetto, 1999; Rigol, 2004). The works synthesized proceedings and interviews, but in most cases no survey was conducted. In addition, there is a fine, and at times hard to discern, line between products of colloquium or panels and expert commentary.

A number of such articles, written by individuals listed as “experts” based on their position in the admissions and counseling professions or on a background of research in the field, are also included (Aurand, 1994; Blackburn, 1990; Burton, Perfetto, & Sanders,

1997; Chimes, 2003; Greene & Greene, 2003; Healy, 1991; Holaday & McCauley, 2004; Levine, 2004; MacGowan, 2004; MacGowan, 2005; Mamlet, 2005; Martin, 2005; Miller & Nadler, 2005; McGrath, 2004; McPhail, 2004; Omundson, 2004; Palmer, 1998; Roueche, 2004; Sanders & Perfetto, 1993; Schwartz, 2005; Stetson, 2005; Templin, 2004; Thiboutot, 2005; Young, 1994). Similar to the surveys of experts, however, there is no evidence that these studies are based on data that can be validated.

Further evidence of the importance of the topic is represented by the wide variety of stories on the subject found in mainstream publications, including newspapers, magazines, online news sources, and higher education publications (Achen, 2005; Argetsinger, 2004; Berman, 2004; Brush, 2005; Burd, 2004; Dobbs, 2004; Eaton, 2005; Evelyn, 2005; Fisher, 2005; Gaigh, 2004; Glenn, 2004; Glenn, 2005; Hays, 2004; Helm, 2005; Hong, 2004; Jones, 2005; Kriel, 2005; Mangan, 2004; Matthews, 2004; O'Neill, 2005; Rodriguez, 2005; Russell, 2005; Sanoff, 2005; Schmidt, 2005; Randall, 2004; Rimer, 2004; Schemo, 2004; Thomas, 2004; Trounson, 2004; University Business, 2004; Zamiska, 2004). It is valuable to bear in mind, as these sources are referenced, that it is often unclear which are being offered as news items, and which are being published by individuals who intend to be viewed as experts on the subject.

Some of the most relevant literature on the subject consists of reviews of state, federal, and/or institutional policies and processes. These were based on public documentation and artifacts (Lauren, 2005) or interviews with policy and institutional officials (Knoell, 1990).

Documents are also included in the literature review that are provided by agencies that serve the admissions profession for the purpose of instructing admissions officers in

how to interpret data or use tools/products from those organizations (*Crisis at the Core*, 2004; *Guidelines on the Uses of College Board Test Scores*, 2002; *The New SAT: A Guide for Admission Officers*, 2005; *Questions and Answers about the New SAT for Admissions Officers*, 2004).

Some of the most statistically reliable information in the literature includes reviews of national, state, and institutional aggregate data, including longitudinal and one-time studies of student performance. These can be divided in two sub-categories by the subjects they explore. Broad studies review general trends in admissions by exploring patterns in the data, demonstrating what is happening to students, institutions, and policies (Adelman, 2005; Hawkins & Lautz, 2005; Peter, Cataldi and Carroll, 2005; Tienda & Niu, 2005; ACT, 2004; Hagedorn, et al, 2003; *Retention, Graduation and Transfer Rates at Maryland Community Colleges*, 2003; Gabriel, 2000; Jacobs and Stoner-Eby, 1998; Dorans, Lyu, Pommerich, & Houston, 1997; Cohen & Brawer, 1996; Palmer, et al, 1994; Houston & Sawyer, 1991). More focused studies examine which student factors found in the admission process are most indicative of successful student achievement (Klopfenstein & Thomas, 2005; Bridgeman, Polack, & Burton, 2004; Geiser & Santelices, 2004; Hiss, 2004; Noble & Sawyer, 2004; Tam & Sukhatme, 2004; Massey, 2003; Naumann, Bandalos, & Gutkin, 2003; Ting, 2003; Noble & Sawyer, 2002; Ting & Bryant, 2001; Hunter & Samter, 2000; Bell-Rose, 1998-99; Ancis & Sedlacek, 1997). Another category, not generally used in this study but often found in the literature, explores which intervention or services provided by transfer destinations influence successful transfer student achievement (Berger & Malaney, 2001). Such studies were determined to lack relevance to the study, as they do not explore data that

can be obtained prior to student enrollment and are therefore not applicable to the admission process.

Finally, several authors have provided literature reviews and syntheses of prior research (Bell, 2005; Borland, 2005; Cejda, 2005; Jacobs, 2005; Johnson & Altemara, 2005; Pope, 2005; Steinmann, Pope, & Miller, 2005; Sullivan, Dyer, & Franklin, 2005; Swanson & Jones-Johnson, 2005; Ward-Roof & Cawthorn, 2005; Altermatt & Kim, 2004; Kinzie, et al, 2004; Kippenhan, 2004; Vogler, 2004; Cuseo, 2001; Flagel, 1998; Richardson & King, 1998; Hubin, 1997). While source material has been used wherever possible, the literature reviews and synthesis have been used when those materials were no longer accessible.

While these varied studies provide a number of different approaches, none have centered directly on the topic of transfer admission practices and/or processes. Instead they are included because they cover a wide variety of related subjects that provide the necessary background to issues of transfer admission. This begins with data on overall trends and patterns in admissions and student enrollment in higher education, especially from literature that looks at patterns in community college and transfer student enrollment. Because the vast majority of the research has been conducted on the admission of students directly from high school to baccalaureate granting institutions, the review follows the data on patterns and trends with exploration of the findings of that body of work on so-called “freshman admission.” This is divided to look initially at processes and methodologies, and then to the specific factors considered as the basis for admission decisions, with some attention in each area as to how these issues may be applied to transfer admission, and a brief look at how financial issues impact these

decisions. With the general trends and bulk of the freshman-focused research as background, the review details the limited literature specifically focused on transfer students: their admission, their performance after transfers, and the factors that seem to indicate their success. The review concludes with a brief description of topics not included.

There are very apparent gaps in the literature. This study explored which factors are in use by four-year institutions in evaluating transfer applicants, which will provide information for policy makers, both internal and external to baccalaureate-granting institutions, community college faculty and staff, and prospective transfer students as to what degree the transfer admission process mirrors freshman evaluation. It did not explore whether transfer admission processes do or should align with freshman admission processes. It did not include possible admission processes institutions do or should employ to address the many types of transfers, such as those that reverse (start at baccalaureate-granting institutions, then attend community college, finally returning to a baccalaureate institution) or swirl, going between two or more institutions with repeating patterns. The validity of admissions factors was also not investigated, including whether quality or type of sending institution is a valid predictor of future success, or whether credits or degrees achieved before transfer should be a factor.

The gap in the literature also extends to an emerging area of new admission models, such as joint admission programs between two-year and four-year institutions. This leaves a wide variety of important follow-up study, particularly exploring the validity of the factors in use and those that are indicated as having good potential as success predictors in the literature. The same can be said for the use of noncognitive

variables in the admissions process. While the tools to discover these variables appear to be well-established (tests, essays, recommendations) and have some validity, there are no indications that the variables themselves are being systematically utilized at more than a handful of institutions.

Apart from the gaps in the literature, several areas closely related to admissions have received study, but are not relevant to this literature review as they contain no information relating to admission processes or criteria. These include research on enrollment patterns for international students and students with English as a Second Language, on the philosophical, legal, and policy implications of affirmative action, on retention and graduation of community college students at community colleges, and on the credit policies of transfer student receiving institutions. For the same reason, information on marketing and recruiting transfer students is also not a part of this review.

## **CHAPTER III**

### **METHODOLOGY**

#### Introduction

As one textbook author noted, “the first step in dealing with a mass of data is, somehow, to organize it” (Shavelson, 1996, p. 43). Several approaches are possible in exploring admission processes, but to gain a comprehensive overview of current practices, a quantitative approach is the most appropriate. “A quantitative study, consistent with the quantitative paradigm, is an inquiry into a social or human problem, based on testing a theory composed of variables, measured with numbers, and analyzed with statistical procedures . . . Something can be measured objectively by using a questionnaire or an instrument” (Creswell, 1994, pp. 2-4). Once the tool has been identified to gather these data, the analysis must follow a legitimate format. “Statistics are methods of organizing and analyzing quantitative data. These methods are tools designed to help the researcher organize and interpret numbers derived from measuring a trait or variable” (McMillan & Schumacher, 1989, p. 209).

The basic research question is: What are the criteria used in the evaluation of applicants with prior post-secondary credit (transfer students) seeking admission to baccalaureate-granting institutions? This entails asking which criteria are used for the evaluation of the admission of transfer students applying to baccalaureate-granting institutions, including which criteria are more important than others and which factors are most commonly used. These policies need to be explored by institutional type, size, and selectivity. Consistent with the concept of quantitative research tools that yield a statistical analysis, these research questions were used to develop a survey tool to be

distributed to those most likely to be knowledgeable about transfer admission policies, chief admissions officers at receiving institutions.

The need for such a study is clearly established in the literature. For many years, admissions officers have relied on an annual study of freshman admission practices conducted by the National Association for College Admissions Counseling (NACAC). Other research has been based on a series of explorations of freshman admission practices developed through a series of symposiums on the subject, with chief enrollment and admissions officers as the participants. These qualitative studies are helpful but are limited in their application since a very small subset of receiving institutions are represented. This introduces potential response bias with no corresponding analysis of its implications, and the small sample size makes it difficult to know if the conclusions they reached are generalizable. The more inclusive NACAC study provides a necessary baseline on which subsequent research can be justified. The extent to which various criteria are in use guides the direction of research on freshman admission, including studies on the ways in which the factors are used and the degree to which they are predictive of future student performance.

A quantitative study provides a standard to prioritize such future research on the transfer admission process and a context in which it can be evaluated. “**Descriptive** statistics transform a set of numbers or observations into indices that describe or characterize the data. Descriptive statistics (sometimes referred to as *summary statistics*) are thus used to summarize, organize, and reduce large numbers of observations” (McMillan and Schumacher, 1989, p. 209). From a standardized and comprehensive survey, such descriptive statistics can readily be generated. To do so, it makes the most



sense to develop the questionnaire/survey along the same lines that the best research has been conducted at the freshman level. In fact, “If the researcher can locate an existing questionnaire, he or she will save time and money and may find an instrument with established reliability and validity” (McMillan and Schumacher, 1989, p. 255). The annual NACAC study provided just such an opportunity.

The following section details the survey method.

### Survey Method

“The mere presence of statistical procedures does not assure quality in the research. While the contribution of some results does depend on applying correct statistical procedure, the quality of the research depends most on proper conceptualization, design, subject selection, instruments, and procedures” (McMillan & Schumacher, 1989, p. 209). To ensure that the instrument design is correct, a survey style questionnaire was the most appropriate tool for this research.

“For many good reasons the questionnaire is the most widely used technique for obtaining information from subjects. A questionnaire is relatively economical, has standardized questions, can assure anonymity, and questions can be written for specific purposes” (McMillan and Schumacher, 1989, p. 254). In particular, a survey is the most applicable of such tools. “In survey research the investigator selects a sample of respondents and administers a questionnaire or conducts interviews to collect information on variables of interest . . . Most surveys describe the incidence, frequency, and distribution of the characteristics of an identified population” (McMillan and Schumacher, 1989, p. 293).

The purpose of survey research, “is to generalize from a sample to a population so that inferences can be made about some characteristic, attitude, or behavior of this population (Babbie, 1990)” (Creswell, 1994, p. 118). In this case, the inclusion of a large number of receiving institutions increases the applicability of the study.

### Research Design and Data Collection

The study is cross-sectional as, “the survey information is collected at one point in time” (Creswell, 1994, p. 119). This survey was a new component of the National Association for College Admissions Counseling Admissions Trends Survey, which was conducted from October through December 2006. As the authors wrote for the March, 2005 edition, “The purpose of this survey is to poll college admissions officers to determine what factors are most important in the admission decision and to assess trends in admission office functions, staff, budget, and operations” (Hawkins and Lautz, 2005, p.1).

Copies of the 2006 survey are included as Appendix A of this publication, in addition to text from letters that accompanied the survey and email reminders to complete the survey, which are provided in Appendix B. The questions regarding transfer admissions replaced a section dedicated to questions on the admission of students who were home-schooled.

The survey was distributed to 2,213 institutions. A paper version, along with a cover letter (Appendix B) providing a link to the online version of the survey was sent via postal mail on October 31, 2006, with a deadline of December 15, 2006, for completion. An e-mail reminder (Appendix B) was sent electronically on November 29<sup>th</sup>. Because

initial response was low, a deadline extension message was sent via e-mail (Appendix B) on December 12, 2006, extending the deadline until January 12, 2007.

The population for the distribution used was all four-year, not-for-profit, degree-granting, Title-IV participating institutions in the United States. The data was obtained using the National Center for Education Statistics Integrated Post-secondary Education Data System (IPEDS) at [www.nces.ed.gov/ipeds](http://www.nces.ed.gov/ipeds).

The data set includes 386 completed surveys that were received, representing approximately 17% of institutions that was sent the survey.

### Sampling

The survey was sent to a single stage sample as NACAC, “has access to names in the population” (Creswell, 1994, P. 120), in addition to receiving institutional contact information through the Department of Education National Center for Education Statistics from their IPEDS Dataset Cutting Tool ([http://www.nces.ed.gov/ipeds/find\\_data/data\\_cutting\\_summary.asp](http://www.nces.ed.gov/ipeds/find_data/data_cutting_summary.asp)). As a result, the survey was sent to 2,213 four-year, not-for-profit, degree-granting, Title-IV participating institutions in the United States and outlying areas. This study excludes information from community college respondents, as the subject pertains to students seeking to enter baccalaureate-granting institutions.

### Data Collection Tool

The NACAC annual survey tool focuses on the freshman admission process and has been used for more than 10 years. Questions on transfer admissions were designed to match the format in the survey, and they replaced an existing section on the admission of

home-schooled students. This is an entirely new section of the survey that has been designed to answer the research questions of this study.

The NACAC survey was developed with an online version in 2006 in a program called “SurveyMonkey.” According to their website, SurveyMonkey meets the “Safe Harbor requirements” and, “has been placed on the Safe Harbor list of companies” ([www.surveymonkey.com](http://www.surveymonkey.com)).

The survey was distributed to all baccalaureate-granting colleges and universities in the United States and those associate degree granting institutions with organizational memberships in NACAC. This is a departure from surveys prior to 2005, which were only sent to NACAC members (Hawkins, 2004; Hawkins and Lautz, 2005).

A paper survey was first sent with an accompanying letter. The paper survey contains a link to an online form as an alternative way to complete the survey. An initial e-mail was also sent promoting use of the online form, and three additional e-mail reminders followed the initial communications.

### Stratification

The response rate to the 2005 survey, one year prior to the inclusion of a transfer admission section, was 23%, with 582 responses from 2,530 institutions surveyed. According to the NACAC annual report of the 2005 survey, “33 percent were public institutions, while 67 percent were private institutions. Nationally, 41 percent of post-secondary institutions are public, while 59 percent are private” (Hawkins and Clinedinst, 2006). This is consistent with data from the National Center for Education Statistics (NCES, 2005) indicating that 40% of post-secondary institutions are public and 60% are

private. The survey responses, however, correspond more closely with the percentages of four-year institutions. NCES reports that only 25% of four-year institutions are public, while 75% are private. Two prior surveys sent to the 1,540 institutional members of NACAC had response rates of 39% (595) in 2003 and 43% (661) in 2004 (Hawkins, 2004; Hawkins and Lautz, 2005). Stratification of the 2006 survey, which included the transfer survey, is detailed in the results analysis.

### Confidentiality

All survey subjects participated with informed consent. The ways in which the survey is used and the results published are detailed in all materials sent to prospective subjects. The selection of subjects has no potential for identified selection, as admission offices are contacted at all baccalaureate-granting institutions.

The privacy of the research subjects has not, and cannot, be compromised in any way. Respondents are anonymous, as their responses are tied to institutions and not to individuals. Respondents are not asked to give their name or other personally identifying information, thereby guaranteeing individual anonymity.

Institutionally identifying data are on secure servers at the NACAC headquarters on systems not connected to the Internet. The data are not available to the public, and the data cannot be accessed from outside the association. In addition, the data that was made available to the researcher had all institutional identifiers removed. While this data set retained general institutional characteristics (size, admission rates, expenditures, etc.), the size of the research population makes it improbable, if not impossible, that this data could be linked to a specific institution. As a result, the researcher had no access to institutional

identities, while respondent identities are, as noted, not collected. Although identifying data are excluded in this matter, data supplied to the researcher was stored on a secure server behind a firewall and with high-security, password-only access.

As noted above, data collected by NACAC was collected using the tool known as SurveyMonkey, which includes stringent privacy and confidentiality standards and protections.

### Analysis

An analysis of the respondent data was conducted consistent with the quantitative method.

On the epistemological issue, the relationship of the researcher to that being researched...The quantitative approach holds that the researcher should remain distant and independent of that being researched. Thus in surveys and experiments, researchers attempt to control for bias, select a systematic sample, and be 'objective' in assessing a situation. (Creswell, 1994, p. 2-4)

The analysis was conducted in software using the Statistical Analysis System (SAS) language.

In answering the research questions, it was most important to show which factors are in use for the evaluation of transfer applicants, and the relative importance of those factors. "A frequency distribution is a method for summarizing and highlighting aspects of the data in data matrix"(Shavelson, 1996, p. 46). Such a frequency distribution is the initial level of analysis, and were conducted in the SAS software.

Some of these dependent variables (factors used to evaluate transfer applicants) were correlated with independent variables found elsewhere in the survey, such as institutional identifying data (public or private status or size of enrollment, for instance)

or with general admission standards (level of competitiveness). To show the relationship between two variables, “the typical convention is to calculate a number to represent the relationship, called a **correlation coefficient**”(McMillan and Schumacher, 1989, p. 233). The SAS system provided Monte Carlo Estimates for the Exact P-values using the Cochran Mentel Haenszel (CMH) test for assessing ordinal associations. In this study, factors with a P-value below 0.05 are considered to have a statistically significant association at a 5% level of significance.

Where multiple correlations between dependent and independent variables were found for any dependent variables, the correlation information was complemented by regression analysis to find the most likely predictors, if any, of the use of the various factors in the admission process. For such variables, the SAS system produced P-values indicating the strength of the relationship, and a confidence interval indicating the likelihood of the relationship. A Wald confidence interval was included for each regression model to more exactly describe the likelihood of the predictive model, with wider intervals indicating greater uncertainty.

### Issues of Validity and Reliability

#### Methods of validity

All correlations and regression analysis run on the data has external and internal validity analysis conducted and reported in the findings.

Validity is the extent to which inferences made on the basis of numerical scores are appropriate, meaningful, and useful. Validity is a judgment of the appropriateness of a measure for specific inferences or decisions that result from the scores generated . . . in order to assure others that the procedures have validity in relation to the research problems, subjects, and setting of the study, it is

incumbent on the investigator to describe the validity of the instruments used to collect data. (McMillan and Schumacher, 1989, p. 241)

This was particularly important to determine any potential response bias, including over-representation of institutions that are more or less competitive, public or private, or other factors that may tend to skew results. No significant bias was found in the data.

#### Methods of reliability

Because the NACAC survey is an existing format that has been in use for several years, there is some long-term comparability of the data previously gathered which has shown a consistency in responses.

Reliability refers to the consistency of measurement, the extent to which the results are similar over different forms of the same instrument or occasions of data collecting. The goal of developing reliable measures is to minimize the influence of chance or other variables unrelated to the intent of the measure. If an instrument is unreliable, the information obtained is ambiguous, inconsistent, and useless. It is therefore important for researchers to select and develop data gathering procedures that will be highly reliable. (McMillan and Schumacher, 1989, p. 243)

The study of transfer admission factors should also be able to be used over time to develop a comparison of responses. Ideally, other studies will be conducted over time to provide a greater comparability.

#### Generalizability of data

Since a large cross-section of receiving institutions were survey respondents, the results of the study and analysis are widely generalizable.



## Delimitations

In order to be part of the national survey that NACAC conducts annually, and to make the response data as comparable with the longitudinal results from that survey as possible, a number of delimitations were accepted for this study.

While the vast majority of competitive receiving institutions are members of NACAC, it is possible that some bias was introduced by favoring responses from members through a survey sent from the organization. In addition, only not-for-profit institutions are included in the sample. While most of the for-profit institutions have open enrollment policies, and therefore are not relevant to the study, it is possible that their exclusion reduces the applicability of the study to this fast-growing segment of the educational environment.

In addition, the questions asked often do not fully explain the use of various factors. There is no way to tell from this survey if some factors are always given the weights indicated, or if this is something that only happens under set conditions. For example, does a school use high school grade point average, for instance, only when the student has a limited post-secondary record, or is it weighted equally for all transfer applicants? Is the essay used to evaluate writing talent and English proficiency, or to glean information about other factors from the applicant? Likewise, the study did not explore the source information for the various factors. It is not clear for instance, whether there is a difference in how much documentation is required, such as recommendations, essays, and/or resume details, to be a successful transfer applicant. This also carries over to questions about curriculum and whether specific courses would be more valued in the admission process, also an unexplored topic. This may not be significant, since few

institutions note a need for specific coursework, and since the institutions had the opportunity to fill in an open response question. Other topics, such as factoring in standardized tests, lack clarity as the use of tests traditionally examined by the NACAC survey, the SAT and ACT, are by no means the only possible standardized tests when it comes to transfer students. It is possible, although the issue is not mentioned in the literature, that schools might use some other standardized tests that are more relevant to transfer admission.

## **CHAPTER IV**

### **RESEARCH FINDINGS**

The 2006 NACAC survey of admissions practices contained sections on the evaluation of traditional applicants, as well as this study's section on the evaluation of transfer applicants. The traditional admission section of the survey focuses on students applying to college directly from secondary school. The transfer section explored admission policies related to students who, after receiving a secondary diploma, receive post-secondary credit from any institution prior to applying to a U.S. baccalaureate-granting institution. The section first asked respondents to identify the policies regarding the degree of importance of sixteen potential transfer applicant evaluation factors.

By far, the factor that was given the most weight in the responses was applicants' grade point averages at their prior post-secondary institutions, with 312 respondents listing this as being of moderate or considerable importance, and 296 of those as considerable importance. The other factors appeared far less important, and were listed as factors of moderate or considerable importance half or less as many times as the grade point average from prior post-secondary institution. The one exception was high school grade point average, and this was still only listed as moderate or considerable importance 176 times, with only 37 institutions weighing it with considerable importance. Other factors that were reported to receive similar weight are recommendations, with 153 moderate to considerable responses (58 considerable); quality of prior post-secondary institution with 151 moderate to considerable responses (37 considerable); and essay or

writing sample with 150 moderate to considerable responses (65 considerable). Overall response rates on these scaled response items are presented in Table I.

**Table I: Frequency of Responses on Scaled Items**

| Variable                                       | No Importance | Limited Importance | Moderate Importance | Considerable Importance | Total Responses |
|--|---------------|--------------------|---------------------|-------------------------|-----------------|
| GPA at post-secondary institution              | 5             | 5                  | 16                  | 296                     | 322             |
| GPA at high school                             | 30            | 110                | 139                 | 37                      | 316             |
| Average of grades in transferable courses      | 24            | 24                 | 82                  | 184                     | 314             |
| Scores on standardized tests                   | 61            | 123                | 109                 | 23                      | 316             |
| Quality of prior post-secondary institution(s) | 61            | 104                | 114                 | 37                      | 316             |
| Quality of high school                         | 108           | 131                | 69                  | 9                       | 317             |
| Articulation with prior institution            | 118           | 87                 | 71                  | 39                      | 315             |
| Essay or writing sample                        | 99            | 69                 | 84                  | 65                      | 317             |
| Work/extra-curricular Activities               | 104           | 115                | 83                  | 15                      | 317             |
| Recommendations                                | 79            | 86                 | 95                  | 58                      | 318             |
| Ability to pay                                 | 243           | 37                 | 27                  | 8                       | 315             |
| State or county of residence                   | 236           | 52                 | 21                  | 7                       | 316             |
| Race/ethnicity                                 | 214           | 52                 | 40                  | 8                       | 314             |
| Students' interest in attending                | 123           | 87                 | 67                  | 40                      | 317             |
| Alumni relations                               | 146           | 106                | 55                  | 8                       | 315             |
| Interview                                      | 125           | 98                 | 65                  | 26                      | 314             |

Respondents were also asked to list the top three of these criteria as used in their evaluation of transfer applicants for admission. Nearly half of the participants failed provide list one or more of the top three factors. Again, grade point average at the applicant's post-secondary institution was most often, 201 times, listed as the top factor.

Grades in transferable courses was the next most-listed top factor, at 19 times, and was the most often listed second factor, 87 times. High school grade point average followed, listed 44 times as the second most important factor. Standardized test scores were listed 31 times as the third most important factor, with recommendations and essays/writing samples following closely at 29 and 28 times, respectively. The frequency of times that a factor was listed among the top three is provided in Tables 2, 3, and 4, and the number of institutions that failed to respond to each factor is also provided.

**Table 2: Frequency of Indicator of Top Factor**

| GPA at post-secondary institution | GPA in high school | Average grades in transferable courses | Articulation with prior institution |     |
|-----------------------------------|--------------------|--|-------------------------------------|-----|
| 201                               |                    | 2                                      | 19                                  | 1   |
| Essay or writing sample           | Ability to pay     | Students' interest in attending        | total                               |     |
| 2                                 |                    | 1                                      | 1                                   | 227 |
| Frequency Missing = 159           |                    |  |                                     |     |

**Table 3: Frequency of Indicator of Second Factor**

| GPA at post-secondary institution           | GPA in high school                  | Average grades in transferable courses | Scores on standardized tests (SAT, ACT) |     |
|---|-------------------------------------|--|---|-----|
| 19  | 44                                  | 87                                     |   | 7   |
| Quality of prior post-secondary institution | Articulation with prior institution | Essay or writing sample                | Work/extra-curricular activities        |     |
| 19  | 8                                   | 16                                     |   | 1   |
| Recommendations                             | Students' interest in attending     | Interview                              | Total                                   |     |
| 11  | 5                                   | 2                                      |   | 219 |
| Frequency Missing = 167                     |                                     |  |   |     |

**Table 4: Frequency of Indicator of Third Factor**

| GPA at post-secondary institution           | GPA in high school     | Average grades in transferable courses | Scores on standardized tests (SAT, ACT) |    |
|---|------------------------|--|---|----|
|   | 1                      | 22                                     | 19                                      | 31 |
| Quality of prior post-secondary institution | Quality of high school | Articulation with prior institution    | Essay or writing sample                 |    |
|   | 21                     | 2                                      | 18                                      | 28 |
| Work/extra-curricular activities            | Recommendations        | Ability to pay                         | State or county of residence            |    |
|   | 5                      | 29                                     | 2                                       | 1  |
| Students' interest in attending             | Interview              | Total                                  |   |    |
|   | 12                     | 13                                     | 204                                     |    |
| Frequency Missing = 182                     |                        |  |   |    |

The transfer section of the survey also asked respondents to indicate whether 10 other factors were a plus, minus, or neutral consideration in determining the admissibility of transfer applicants. Applying from a highly competitive four-year college was the only factor not having a majority of neutral responses, and it was also the highest (159 times) plus factor, followed by having an associate degree (126) and having visited the campus (122). Very few factors were listed as minuses, planning on part-time status getting the highest (33) followed by more than 60 hours of credit (18) and having a GED (18). The frequency of all responses on the additional factors section is provided in Table 5.

**Table 5: Frequency of Responses on Additional Factors**

| Variable  | Plus | Neutral | Minus | Total Responses |
|---|------|---------|-------|-----------------|
| Received a GED                                  | 11   | 290     | 18    | 319             |
| Received an associate degree                    | 126  | 192     | 1     | 319             |
| Attended a community college                    | 57   | 258     | 2     | 317             |
| Attended a highly competitive four-year College | 159  | 156     | 3     | 318             |
| More Than 60 hours transferable credit          | 91   | 211     | 18    | 320             |
| Visited the campus                              | 122  | 195     | 2     | 319             |
| Frequently contacted the admission office       | 88   | 228     | 2     | 318             |
| Over 25 years old                               | 15   | 294     | 7     | 316             |
| Particular academic or professional focus       | 114  | 203     | 1     | 318             |
| Plans to enroll full-time                       | 109  | 208     | 0     | 317             |
| Plans to enroll part-time                       | 10   | 268     | 33    | 311             |

Six institutional characteristics were identified as the most likely independent variables to have an impact on selection and weighting of factors in the transfer admission process: control of institution (public or private), two measures of competitiveness (freshman admission rate and transfer student admission rate), and two measures of enrollment size (size of fall semester incoming freshman class, and size of fall semester incoming transfer class).

In the following tables, the responses for each independent variable are detailed, including frequency of responses and association between the variable and the responses. In order to evaluate the various transfer admission factors and their relationships to the

independent variables, associations were analyzed statistically using a series of chi-square tests of independence. The software used was the Statistical Analysis System (SAS) language. This provided the “P-values,” or the measures of the statistical significance of the observed relationship between these factors. The Monte Carlo Estimate for the Exact P-values were obtained using the Cochran Mantel Haenszel (CMH) test for assessing ordinal associations. This describes the likelihood of an association between the independent and dependent variable.

These overviews are followed by the results of regression analysis on each dependent variable (survey responses on factors used in the transfer admission process) against any independent variables with statistically significant associations to demonstrate the best predictors of the use of those factors in the admission process. For the purpose of this study, associations were considered to be statistically significant if the association had a P-value of less than .05. This level was sufficient to indicate a likely association, while the regression analysis was used to screen out any potentially weak or confounding predictors among the independent variables. The strength of the associations and the level of association are detailed in Appendix C. This chapter concludes with a brief description of the open response section of the survey.

### Institutional Control

Institutional control refers to whether an institution is governed under the authority of a state government or not. The question asked whether a college or university is a private or public institution, offering only these two possible responses. The breakdown of respondents is provided in Table 6.



**Table 6: Distribution of Respondents by Institutional Control**

| Control of Institution | Number of Respondents | Percentage |
|------------------------|-----------------------|------------|
| Public                 | 97                    | 28.76%     |
| Private                | 264                   | 71.24%     |

The survey respondents included 28.76% public and 71.24% private institutions. Out of the total data obtained from the National Center for Education Statistics IPEDS website, 29.4% of institutions are public, while 70.6% are private. This indicates a slight (less than 1%) difference in the stratification of the respondent pool when compared to the total population.

While grade point average at post-secondary institution was the dominant admission factor for both public and private institutions, as it was in the overall distribution, some of the other factors appear to differ by institutional control. The frequency of response by institutional control for each scaled item is detailed in Table 7.

**Table 7: Frequency of Response on Scaled Items by Institutional Control**

| Variable                                       | Institutional Control | No importance | Limited Importance | Moderate Importance | Considerable Importance | Total Responses |
|--|-----------------------|---------------|--------------------|---------------------|-------------------------|-----------------|
| GPA at post-secondary institution              | Public                | 1             | 2                  | 1                   | 79                      | 83              |
|  | Private               | 4             | 3                  | 15                  | 217                     | 239             |
| GPA at high school                             | Public                | 15            | 33                 | 30                  | 3                       | 81              |
|  | Private               | 15            | 77                 | 109                 | 34                      | 235             |
| Average of grades in transferable courses      | Public                | 6             | 5                  | 11                  | 58                      | 80              |
|  | Private               | 18            | 19                 | 71                  | 126                     | 234             |
| Scores on standardized tests                   | Public                | 28            | 30                 | 19                  | 3                       | 80              |
|  | Private               | 33            | 93                 | 90                  | 20                      | 236             |
| Quality of prior post-secondary institution(s) | Public                | 36            | 22                 | 17                  | 6                       | 81              |
|  | Private               | 25            | 82                 | 97                  | 31                      | 235             |
| Quality of high school                         | Public                | 44            | 30                 | 7                   | 0                       | 81              |
|  | Private               | 64            | 101                | 62                  | 9                       | 236             |
| Articulation with prior institution            | Public                | 28            | 22                 | 16                  | 16                      | 82              |
|  | Private               | 90            | 65                 | 55                  | 23                      | 233             |
| Essay or writing sample                        | Public                | 48            | 15                 | 14                  | 5                       | 82              |
|  | Private               | 51            | 54                 | 70                  | 60                      | 235             |
| Work/extracurricular activities                | Public                | 48            | 20                 | 12                  | 1                       | 81              |
|  | Private               | 56            | 95                 | 71                  | 14                      | 236             |
| Recommendations                                | Public                | 45            | 26                 | 11                  | 0                       | 82              |
|  | Private               | 34            | 60                 | 84                  | 58                      | 236             |
| Ability to pay                                 | Public                | 77            | 2                  | 1                   | 0                       | 80              |
|  | Private               | 166           | 35                 | 26                  | 8                       | 235             |
| State or county of residence                   | Public                | 59            | 12                 | 5                   | 5                       | 81              |
|  | Private               | 177           | 40                 | 16                  | 2                       | 235             |
| Race/ethnicity                                 | Public                | 67            | 8                  | 5                   | 2                       | 82              |
|  | Private               | 147           | 44                 | 35                  | 6                       | 232             |
| Students' interest in attending                | Public                | 47            | 18                 | 13                  | 4                       | 82              |
|  | Private               | 76            | 69                 | 54                  | 36                      | 235             |
| Alumni relations                               | Public                | 56            | 20                 | 4                   | 1                       | 81              |
|  | Private               | 90            | 86                 | 51                  | 7                       | 234             |
| Interview                                      | Public                | 61            | 13                 | 6                   | 0                       | 80              |
|  | Private               | 64            | 85                 | 59                  | 26                      | 234             |

As noted in the previous section, associations were analyzed statistically using a series of chi-square tests of independence. These scores show associations between institutional control and responses on high school grade point average, scores on standardized tests, quality of prior post-secondary institution, quality of high school, essay or writing sample, work/extracurricular activities, recommendations, ability to pay, race or ethnicity, student's interest in attending, alumni relations, and interview. All

values describing the association between the institutional control variable and the scaled response factors are provided in Table 8 in appendix C.

Grade point average from post-secondary institution was the most often listed top factor for both public and private institutions. The frequency of listing among the top three factors is provided in Tables 9, 10, and 11.

**Table 9: Frequency of Indicator of First Factor by Institutional Control**

|         | GPA at post-secondary institution | GPA in high school | Average grades in transferable courses | Articulation with prior institution |  |
|---------|-----------------------------------|--------------------|--|-------------------------------------|--|
| Public  | 56                                | 0                  | 6                                      | 1                                   |  |
| Private | 145                               | 2                  | 13                                     | 0                                   |  |
|         | Essay or writing sample           | Ability to pay     | Students' interest in attending        | Total                               |  |
| Public  | 0                                 | 0                  | 0                                      | 63                                  |  |
| Private | 2                                 | 1                  | 1                                      | 164                                 |  |

**Table 10: Frequency of Indicator of Second Factor by Institutional Control**

|                         | GPA at post-secondary institution           | GPA in high school                  | Average grades in transferable courses | Scores on standardized tests (SAT, ACT) |  |
|-------------------------|---|-------------------------------------|--|---|--|
| Public                  | 6   | 15                                  | 30                                     | 3                                       |  |
| Private                 | 13  | 29                                  | 57                                     | 4                                       |  |
|                         | Quality of prior post-secondary institution | Articulation with prior institution | Essay or writing sample                | Work/extra-curricular activities        |  |
| Public                  | 2   | 2                                   | 1                                      | 0                                       |  |
| Private                 | 17  | 6                                   | 15                                     | 1                                       |  |
|                         | Recommendations                             | Students' interest in attending     | Interview                              | Total                                   |  |
| Public                  | 0   | 1                                   | 0                                      | 60                                      |  |
| Private                 | 11  | 4                                   | 2                                      | 159                                     |  |
| Frequency Missing = 167 |   |                                     |  |   |  |

**Table 11: Frequency of Indicator of Third Factor by Institutional Control**

|                         | GPA at post-secondary institution           | GPA in high school     | Average grades in transferable courses | Scores on standardized tests (SAT, ACT) |
|-------------------------|---|------------------------|--|---|
| Public                  | 0   | 5                      | 8                                      | 10                                      |
| Private                 | 1   | 17                     | 11                                     | 21                                      |
|                         | Quality of prior post-secondary institution | Quality of high school | Articulation with prior institution    | Essay or writing sample                 |
| Public                  | 5   | 1                      | 7                                      | 4                                       |
| Private                 | 16  | 1                      | 11                                     | 24                                      |
|                         | Work/extra-curricular activities            | Recommendations        | Ability to pay                         | State or county of residence            |
| Public                  | 3   | 1                      | 0                                      | 1                                       |
| Private                 | 2   | 28                     | 2                                      | 0                                       |
|                         | Students' interest in attending             | Interview              | Total                                  |   |
| Public                  | 2   | 1                      | 48                                     |   |
| Private                 | 10  | 12                     | 156                                    |   |
| Frequency Missing = 182 |   |                        |  |   |

Of the associations between the top three factors and institutional control, only the third factor has a significant association. The associations are provided in Table 12 in Appendix C.

For the additional factors, applying from a highly competitive four-year institution was the most indicated plus factor for private institutions, while having received an associates degree was the most often indicated among public institutions. The breakdown of responses by institutional control is provided in Table 13.

**Table 13: Frequency of Responses on Additional Factors by Institutional Control**

| Variable  | Institutional Control | Plus | Neutral | Minus | Total Responses |
|---|-----------------------|------|---------|-------|-----------------|
| Received a GED                                  | Public                | 2    | 78      | 1     | 81              |
|   | Private               | 9    | 212     | 17    | 238             |
| Received an associate degree                    | Public                | 39   | 42      | 0     | 81              |
|   | Private               | 87   | 150     | 1     | 238             |
| Attended a community college                    | Public                | 20   | 60      | 0     | 80              |
|   | Private               | 37   | 198     | 2     | 237             |
| Attended a highly competitive four-year College | Public                | 24   | 55      | 1     | 80              |
|   | Private               | 135  | 101     | 2     | 238             |
| More Than 60 hours transferable credit          | Public                | 31   | 50      | 0     | 81              |
|   | Private               | 60   | 161     | 18    | 239             |
| Visited the campus                              | Public                | 10   | 71      | 0     | 81              |
|   | Private               | 112  | 124     | 2     | 238             |
| Frequently contacted the admission office       | Public                | 7    | 74      | 0     | 81              |
|   | Private               | 81   | 154     | 2     | 237             |
| Over 25 years old                               | Public                | 9    | 71      | 0     | 80              |
|   | Private               | 6    | 223     | 7     | 236             |
| Particular academic or professional focus       | Public                | 27   | 53      | 0     | 80              |
|   | Private               | 87   | 150     | 1     | 238             |
| Plans to enroll full-time                       | Public                | 17   | 63      | 0     | 80              |
|   | Private               | 92   | 145     | 0     | 237             |
| Plans to enroll part-time                       | Public                | 4    | 72      | 3     | 79              |
|   | Private               | 6    | 196     | 30    | 232             |

When associations were examined between these factors and institutional control, attending a highly competitive four-year institution, having more than 60 hours of transferable credit, visiting the campus, frequently contacting the admissions office, being over 25 years old, planning to enroll full-time, and planning to enroll part-time were all found to have statistical significance. A complete list of the P-Values for these associations is provided in Table 14, Appendix C.

## Freshman Admission Rate

Unlike institutional control, which was either public or private, competitiveness, as measured by freshman and transfer admission rates, was a numeric variable. Average (mean) reported freshman admission rate was 69.15%, closely mirroring the average freshman admitted rate for the full population at 69.0%. In order to conduct frequency and association analysis, institutions were categorized into four numeric levels of competitiveness that created an approximately even distribution of respondents: 25 (admission of 0-50% of applicants); 60.5 (admission of 50-71% of applicants); 78 (71-85% of applicants); and 92.5 (more than 85 percent of applicants). As described by Melissa Clinedinst, Assistant Director of Research at NACAC, in e-mail and phone conversations with the researcher, these ranges were developed by NACAC based on the distribution of respondents and member perception of levels of selectivity, and these ranges have been used for the past four cycles of this national study. After reviewing the data, the researcher found these ranges provided an adequate distribution for the purpose of determining initial associations, especially since the exact responses were used in the more detailed regression analysis section. These NACAC designed ranges will be particularly useful if future research is conducted comparing the policies of freshmen and transfer admission, or to permit policy makers and institutional leaders to compare the analysis in this research with the research conducted on the traditional applicant section of the survey. Table 15 provides the frequency of respondents from each of these ranges.

**Table 15: Competitiveness Scale**

| Freshman Admission Rate | Frequency | Percentage |
|-------------------------|-----------|------------|
| 25                      | 52        | 15.48      |
| 60.5                    | 109       | 32.44      |
| 78                      | 110       | 32.74      |
| 92.5                    | 65        | 19.35      |

Table 16 provides the frequency of responses in four freshman admission rate categories on the scaled questions on transfer admission factors.

**Table 16: Frequency of Response on Scaled Items by Percent of Freshmen Applicants Admitted**

| Variable                                       | Freshmen<br>Admit Rate | No<br>Importance | Limited<br>Importance | Moderate<br>Importance | Considerable<br>Importance | Total<br>Responses |
|--|------------------------|------------------|-----------------------|------------------------|----------------------------|--------------------|
| GPA at post-secondary institution              | 25                     | 1                | 1                     | 3                      | 42                         | 47                 |
|  | 60.5                   | 1                | 1                     | 5                      | 94                         | 101                |
|  | 78                     | 0                | 1                     | 1                      | 97                         | 99                 |
|  | 92.5                   | 3                | 2                     | 6                      | 50                         | 61                 |
| GPA at high school                             | 25                     | 4                | 10                    | 21                     | 11                         | 46                 |
|  | 60.5                   | 9                | 38                    | 46                     | 7                          | 100                |
|  | 78                     | 8                | 35                    | 46                     | 9                          | 98                 |
|  | 92.5                   | 8                | 24                    | 21                     | 7                          | 60                 |
| Average of grades in transferable courses      | 25                     | 2                | 2                     | 10                     | 31                         | 45                 |
|  | 60.5                   | 8                | 8                     | 27                     | 58                         | 101                |
|  | 78                     | 6                | 6                     | 27                     | 57                         | 96                 |
|  | 92.5                   | 8                | 8                     | 14                     | 29                         | 59                 |
| Scores on standardized tests (ACT, SAT)        | 25                     | 9                | 11                    | 22                     | 5                          | 47                 |
|  | 60.5                   | 16               | 41                    | 39                     | 4                          | 100                |
|  | 78                     | 17               | 43                    | 32                     | 5                          | 97                 |
|  | 92.5                   | 17               | 24                    | 11                     | 8                          | 60                 |
| Quality of prior post-secondary institution(s) | 25                     | 7                | 11                    | 21                     | 7                          | 46                 |
|  | 60.5                   | 17               | 38                    | 33                     | 12                         | 100                |
|  | 78                     | 17               | 31                    | 38                     | 12                         | 98                 |
|  | 92.5                   | 17               | 21                    | 17                     | 5                          | 60                 |
| Quality of high school                         | 25                     | 11               | 24                    | 8                      | 4                          | 47                 |
|  | 60.5                   | 33               | 41                    | 24                     | 3                          | 101                |
|  | 78                     | 30               | 42                    | 26                     | 0                          | 98                 |
|  | 92.5                   | 30               | 21                    | 6                      | 2                          | 59                 |
| Articulation with prior institution            | 25                     | 23               | 11                    | 9                      | 3                          | 46                 |
|  | 60.5                   | 29               | 28                    | 27                     | 16                         | 100                |
|  | 78                     | 34               | 31                    | 20                     | 11                         | 96                 |
|  | 92.5                   | 27               | 14                    | 12                     | 7                          | 60                 |
| Essay or writing sample                        | 25                     | 8                | 4                     | 14                     | 21                         | 47                 |
|  | 60.5                   | 34               | 24                    | 26                     | 16                         | 100                |
|  | 78                     | 33               | 24                    | 29                     | 12                         | 98                 |
|  | 92.5                   | 22               | 13                    | 10                     | 15                         | 60                 |
| Work/extra-curricular Activities               | 25                     | 8                | 12                    | 20                     | 7                          | 47                 |
|  | 60.5                   | 36               | 31                    | 29                     | 5                          | 101                |
|  | 78                     | 34               | 46                    | 15                     | 2                          | 97                 |
|  | 92.5                   | 23               | 22                    | 14                     | 1                          | 60                 |
| Recommendations                                | 25                     | 7                | 6                     | 18                     | 16                         | 47                 |
|  | 60.5                   | 26               | 29                    | 27                     | 18                         | 100                |
|  | 78                     | 26               | 27                    | 35                     | 11                         | 99                 |
|  | 92.5                   | 17               | 21                    | 11                     | 11                         | 60                 |
| Ability to pay                                 | 25                     | 31               | 6                     | 5                      | 3                          | 45                 |
|  | 60.5                   | 73               | 16                    | 11                     | 1                          | 101                |
|  | 78                     | 79               | 9                     | 7                      | 2                          | 97                 |
|  | 92.5                   | 49               | 5                     | 4                      | 2                          | 60                 |
| State or county of residence                   | 25                     | 28               | 14                    | 2                      | 3                          | 47                 |
|  | 60.5                   | 68               | 21                    | 9                      | 2                          | 100                |
|  | 78                     | 81               | 11                    | 5                      | 0                          | 97                 |
|  | 92.5                   | 51               | 4                     | 4                      | 1                          | 60                 |
| Race/ethnicity                                 | 25                     | 15               | 13                    | 13                     | 3                          | 44                 |
|  | 60.5                   | 71               | 12                    | 15                     | 2                          | 100                |
|  | 78                     | 70               | 19                    | 9                      | 1                          | 99                 |
|  | 92.5                   | 49               | 6                     | 2                      | 2                          | 59                 |
| Students' interest in attending                | 25                     | 16               | 13                    | 13                     | 5                          | 47                 |
|  | 60.5                   | 43               | 21                    | 25                     | 10                         | 99                 |
|  | 78                     | 41               | 33                    | 16                     | 9                          | 99                 |
|  | 92.5                   | 18               | 18                    | 11                     | 13                         | 60                 |
| Alumni relations                               | 25                     | 13               | 16                    | 11                     | 4                          | 44                 |
|  | 60.5                   | 45               | 37                    | 18                     | 1                          | 101                |
|  | 78                     | 45               | 33                    | 20                     | 0                          | 98                 |
|  | 92.5                   | 38               | 15                    | 5                      | 2                          | 60                 |
| Interview                                      | 25                     | 22               | 10                    | 9                      | 4                          | 45                 |
|  | 60.5                   | 38               | 31                    | 22                     | 9                          | 100                |
|  | 78                     | 34               | 36                    | 20                     | 7                          | 97                 |
|  | 92.5                   | 25               | 18                    | 11                     | 6                          | 60                 |



Regardless of freshman admit rate, grade point average at post-secondary institution and average grades of transferable courses were the most often listed as being of considerable importance. Admit rate ranges 60.5, 78, and 92.5, all reported race/ethnicity, ability to pay, and state or county of residency most often as having no importance. The most competitive institutions, in the 25 range, also most often reported ability to pay and state of residency as being of no importance, but unlike the less competitive institutions were less likely to indicate that race and ethnicity had no importance. Following the frequency analysis, associations were run to determine the relationship between freshman admission rate and responses on these factors. The P-values for these associations are provided in Table 17, Appendix C.

Nearly all of the associations between freshman admit rate and the scaled responses were significant. Only grade point average at post-secondary institution, articulation with prior institution, student's interest in attending, and interview were not found to have a significant association.

The frequency of responses for the three top factors by freshman admission rates, are provided in Tables 18, 19, and 20.

**Table 18: Frequency of Indicator of First Factor by Freshman Admit Rate**

|                         | GPA at post-<br>secondary<br>institution | GPA in high<br>school | Average<br>grades in<br>transferable<br>courses | Articulation with<br>prior institution |    |
|-------------------------|--|-----------------------|---|--|----|
| 25                      | 24                                       | 1                     | 3   | 0                                      |    |
| 60.5                    | 71                                       | 0                     | 3   | 0                                      |    |
| 78                      | 71                                       | 0                     | 8   | 0                                      |    |
| 92.5                    | 28                                       | 1                     | 3   | 1                                      |    |
|                         | Essay or writing<br>sample               | Ability to pay        | Students'<br>interest in<br>attending           | Total                                  |    |
| 25                      | 1  | 1                     | 0   |  | 30 |
| 60.5                    | 0  | 0                     | 0   |  | 74 |
| 78                      | 1  | 0                     | 0   |  | 80 |
| 92.5                    | 0  | 0                     | 1   |  | 34 |
| Frequency Missing = 180 |  |                       |   |  |    |

**Table 19: Frequency of Indicator of Second Factor by Freshman Admit Rate**

|                         | GPA at post-secondary institution           | GPA in high school                  | Average grades in transferable courses | Scores on standardized tests (SAT, ACT) |  |
|-------------------------|---|-------------------------------------|--|---|--|
| 25                      | 4   | 5                                   | 8                                      | 3                                       |  |
| 60.5                    | 3   | 12                                  | 43                                     | 1                                       |  |
| 78                      | 6   | 18                                  | 26                                     | 1                                       |  |
| 92.5                    | 4   | 6                                   | 9                                      | 1                                       |  |
|                         | Quality of prior post-secondary institution | Articulation with prior institution | Essay or writing sample                | Work/extra-curricular activities        |  |
| 25                      | 4   | 1                                   | 2                                      | 1                                       |  |
| 60.5                    | 3   | 2                                   | 2                                      | 0                                       |  |
| 78                      | 10  | 3                                   | 8                                      | 0                                       |  |
| 92.5                    | 2   | 2                                   | 4                                      | 0                                       |  |
|                         | Recom-mendations                            | Students' interest in attending     | Interview                              | Total                                   |  |
| 25                      | 1   | 1                                   | 0                                      | 30                                      |  |
| 60.5                    | 3   | 1                                   | 1                                      | 71                                      |  |
| 78                      | 5   | 0                                   | 1                                      | 78                                      |  |
| 92.5                    | 2   | 2                                   | 0                                      | 32                                      |  |
| Frequency Missing = 186 |   |                                     |  |   |  |

**Table 20: Frequency of Indicator of Third Factor by Freshman Admit Rate**

|                         | GPA at post-secondary institution           | GPA in high school     | Average grades in transferable courses | Scores on standardized tests (SAT, ACT) |  |
|-------------------------|---|------------------------|--|---|--|
| 25                      | 0   | 1                      | 3                                      | 4                                       |  |
| 60.5                    | 0   | 5                      | 4                                      | 9                                       |  |
| 78                      | 1   | 12                     | 8                                      | 13                                      |  |
| 92.5                    | 0   | 2                      | 3                                      | 5                                       |  |
|                         | Quality of prior post-secondary institution | Quality of high school | Articulation with prior institution    | Essay or writing sample                 |  |
| 25                      | 1   | 0                      | 1                                      | 6                                       |  |
| 60.5                    | 6   | 0                      | 11                                     | 14                                      |  |
| 78                      | 10  | 2                      | 4                                      | 5                                       |  |
| 92.5                    | 2   | 0                      | 1                                      | 3                                       |  |
|                         | Work/extra-curricular activities            | Recommendations        | Ability to pay                         | State or county of residence            |  |
| 25                      | 1   | 7                      | 0                                      | 0                                       |  |
| 60.5                    | 1   | 6                      | 1                                      | 1                                       |  |
| 78                      | 1   | 10                     | 1                                      | 0                                       |  |
| 92.5                    | 1   | 5                      | 0                                      | 0                                       |  |
|                         | Students' interest in attending             | Interview              | Total                                  |   |  |
| 25                      | 2   | 1                      | 27                                     |   |  |
| 60.5                    | 5   | 4                      | 67                                     |   |  |
| 78                      | 2   | 6                      | 75                                     |   |  |
| 92.5                    | 3   | 2                      | 27                                     |   |  |
| Frequency Missing = 201 |   |                        |  |   |  |

Grade point average at post-secondary institution remained the most listed top factor, regardless of freshman admission rate. The top factor is the only one of the three that had an association with the competitiveness of the institution as measured by freshman applicant admission rate, as the only factor with an association below 0.5. In other words, the percent of freshman applicants that an institution accepts had a

statistically significant association with which factor that institution gives the most weight in the transfer applicant evaluation process. The P-values for all three factors is provided in Table 21, Appendix C.

The frequency of responses on the additional factors is provided in Table 22.

**Table 22: Frequency of Responses on Additional Factors by Freshman Admit Rate**

| Variable   | Freshmen<br>admit rate | Plus | Neutral | Minus | Total Responses |
|--|------------------------|------|---------|-------|-----------------|
| Received a GED   | 25                     | 3    | 40      | 4     | 47              |
|  | 60.5                   | 5    | 92      | 4     | 101             |
|  | 78                     | 1    | 90      | 9     | 100             |
|  | 92.5                   | 1    | 57      | 1     | 59              |
| Received an<br>associate degree                        | 25                     | 13   | 32      | 1     | 46              |
|  | 60.5                   | 44   | 57      | 0     | 101             |
|  | 78                     | 44   | 55      | 0     | 99              |
|  | 92.5                   | 22   | 38      | 0     | 60              |
| Attended a<br>community college                        | 25                     | 10   | 36      | 1     | 47              |
|  | 60.5                   | 23   | 77      | 0     | 100             |
|  | 78                     | 15   | 82      | 1     | 98              |
|  | 92.5                   | 7    | 53      | 0     | 60              |
| Attended a highly<br>competitive four-<br>year College | 25                     | 30   | 15      | 1     | 46              |
|  | 60.5                   | 50   | 50      | 1     | 101             |
|  | 78                     | 49   | 50      | 0     | 99              |
|  | 92.5                   | 26   | 33      | 1     | 60              |
| More Than 60<br>hours transferable<br>credit           | 25                     | 7    | 32      | 8     | 47              |
|  | 60.5                   | 33   | 66      | 2     | 101             |
|  | 78                     | 32   | 64      | 3     | 99              |
|  | 92.5                   | 15   | 41      | 4     | 60              |
| Visited the campus                                     | 25                     | 18   | 28      | 1     | 47              |
|  | 60.5                   | 38   | 61      | 1     | 100             |
|  | 78                     | 37   | 63      | 0     | 100             |
|  | 92.5                   | 26   | 34      | 0     | 60              |
| Frequently<br>contacted the<br>admission office        | 25                     | 12   | 34      | 1     | 47              |
|  | 60.5                   | 26   | 73      | 1     | 100             |
|  | 78                     | 29   | 70      | 0     | 99              |
|  | 92.5                   | 19   | 41      | 0     | 60              |
| Over 25 years old                                      | 25                     | 2    | 40      | 4     | 46              |
|  | 60.5                   | 6    | 93      | 0     | 99              |
|  | 78                     | 5    | 93      | 1     | 99              |
|  | 92.5                   | 2    | 56      | 2     | 60              |
| Particular academic<br>or professional<br>focus        | 25                     | 16   | 31      | 0     | 47              |
|  | 60.5                   | 36   | 62      | 1     | 99              |
|  | 78                     | 38   | 62      | 0     | 100             |
|  | 92.5                   | 19   | 41      | 0     | 60              |
| Plans to enroll full-<br>time                          | 25                     | 23   | 23      | 0     | 46              |
|  | 60.5                   | 28   | 72      | 0     | 100             |
|  | 78                     | 37   | 62      | 0     | 99              |
|  | 92.5                   | 18   | 42      | 0     | 60              |
| Plans to enroll part-<br>time                          | 25                     | 0    | 26      | 17    | 43              |
|  | 60.5                   | 5    | 87      | 6     | 98              |
|  | 78                     | 3    | 89      | 7     | 99              |
|  | 92.5                   | 2    | 55      | 2     | 59              |

Attendance at a highly competitive four-year institution was the most indicated plus factor among all freshman admission rates, while only planning to enroll part-time

received a few indications as a minus factor (options were provided for plus, neutral, or minus influence on the admission decision). Of these additional factors, only three had associations with freshman admission rate. The use of prior enrollment at a highly competitive four-year institution, having more than 60 credit hours, and planning to enroll in part-time status varied significantly by freshman admission rate. The P-values for all of the additional factors and their association with the categories of freshman admission rates are provided in Table 23, Appendix C.

### Transfer Admission Rate

The average (mean) reported transfer admission rate was 64.44%. For the competitiveness variable based on the admission of transfer applicants, institutions were categorized into the same four numeric levels of competitiveness that were used for freshman admission rates: 25 (admission of 0-50% of applicants); 60.5 (admission of 50-71% of applicants); 78 (71-85% of applicants); and 92.5 (more than 85% of applicants). These were selected to simplify any future comparisons between freshman and transfer admission rates and for the convenience of analyzing frequency and association data. As with the freshman admission rate, the exact numeric responses were used in the regression analysis section of the research. Table 24 provides the overall frequency of responses for each of the ranges.

**Table 24: Competitiveness Scale**

| Transfer Admission Rate | Frequency | Percentage |
|-------------------------|-----------|------------|
| 25                      | 66        | 22.22      |
| 60.5                    | 115       | 38.72      |
| 78                      | 66        | 22.22      |
| 92.5                    | 50        | 16.84      |

Table 25 provides the frequency of scaled responses on the factors used in the evaluation of transfer applicants.



**Table 25: Frequency of Response on Scaled Items by Percent of Transfer Applicants Admitted**

| Variable                                       | Transfer<br>Admit Rate | No<br>importance | Limited<br>Importance | Moderate<br>Importance | Considerable<br>Importance | Total<br>Responses |
|--|------------------------|------------------|-----------------------|------------------------|----------------------------|--------------------|
| GPA at post-secondary institution              | 25                     | 0                | 0                     | 3                      | 62                         | 65                 |
|  | 60.5                   | 2                | 1                     | 3                      | 109                        | 115                |
|  | 78                     | 0                | 0                     | 2                      | 62                         | 64                 |
|  | 92.5                   | 3                | 2                     | 5                      | 40                         | 50                 |
| GPA at high school                             | 25                     | 4                | 12                    | 37                     | 12                         | 65                 |
|  | 60.5                   | 11               | 46                    | 44                     | 13                         | 114                |
|  | 78                     | 1                | 30                    | 29                     | 3                          | 63                 |
|  | 92.5                   | 9                | 14                    | 20                     | 4                          | 47                 |
| Average of grades in transferable courses      | 25                     | 3                | 2                     | 14                     | 46                         | 65                 |
|  | 60.5                   | 9                | 7                     | 33                     | 64                         | 113                |
|  | 78                     | 6                | 7                     | 13                     | 35                         | 61                 |
|  | 92.5                   | 5                | 6                     | 15                     | 23                         | 49                 |
| Scores on standardized tests (ACT, SAT)        | 25                     | 8                | 18                    | 34                     | 5                          | 65                 |
|  | 60.5                   | 25               | 42                    | 37                     | 9                          | 113                |
|  | 78                     | 8                | 34                    | 18                     | 3                          | 63                 |
|  | 92.5                   | 14               | 21                    | 9                      | 4                          | 48                 |
| Quality of prior post-secondary institution(s) | 25                     | 7                | 16                    | 32                     | 10                         | 65                 |
|  | 60.5                   | 21               | 33                    | 41                     | 17                         | 112                |
|  | 78                     | 13               | 30                    | 17                     | 3                          | 63                 |
|  | 92.5                   | 14               | 12                    | 19                     | 4                          | 49                 |
| Quality of high school                         | 25                     | 14               | 29                    | 19                     | 3                          | 65                 |
|  | 60.5                   | 41               | 39                    | 29                     | 4                          | 113                |
|  | 78                     | 19               | 36                    | 9                      | 0                          | 64                 |
|  | 92.5                   | 24               | 16                    | 7                      | 1                          | 48                 |
| Articulation with prior institution            | 25                     | 30               | 12                    | 13                     | 9                          | 64                 |
|  | 60.5                   | 35               | 37                    | 25                     | 14                         | 111                |
|  | 78                     | 19               | 20                    | 14                     | 10                         | 63                 |
|  | 92.5                   | 23               | 11                    | 10                     | 6                          | 50                 |
| Essay or writing sample                        | 25                     | 10               | 17                    | 20                     | 18                         | 65                 |
|  | 60.5                   | 42               | 24                    | 28                     | 19                         | 113                |
|  | 78                     | 19               | 16                    | 18                     | 10                         | 63                 |
|  | 92.5                   | 18               | 10                    | 12                     | 9                          | 49                 |
| Work/extra-curricular Activities               | 25                     | 10               | 22                    | 27                     | 6                          | 65                 |
|  | 60.5                   | 43               | 36                    | 30                     | 4                          | 113                |
|  | 78                     | 19               | 34                    | 9                      | 1                          | 63                 |
|  | 92.5                   | 20               | 15                    | 11                     | 3                          | 49                 |
| Recommendations                                | 25                     | 10               | 11                    | 26                     | 18                         | 65                 |
|  | 60.5                   | 28               | 33                    | 34                     | 18                         | 113                |
|  | 78                     | 17               | 25                    | 17                     | 5                          | 64                 |
|  | 92.5                   | 16               | 13                    | 10                     | 10                         | 49                 |
| Ability to pay                                 | 25                     | 49               | 10                    | 6                      | 0                          | 65                 |
|  | 60.5                   | 82               | 16                    | 11                     | 3                          | 112                |
|  | 78                     | 54               | 7                     | 2                      | 0                          | 63                 |
|  | 92.5                   | 38               | 2                     | 5                      | 3                          | 48                 |
| State or county of residence                   | 25                     | 39               | 21                    | 4                      | 1                          | 65                 |
|  | 60.5                   | 83               | 19                    | 7                      | 3                          | 112                |
|  | 78                     | 51               | 7                     | 5                      | 0                          | 63                 |
|  | 92.5                   | 43               | 3                     | 2                      | 1                          | 49                 |
| Race/ethnicity                                 | 25                     | 26               | 17                    | 18                     | 3                          | 64                 |
|  | 60.5                   | 80               | 19                    | 12                     | 1                          | 112                |
|  | 78                     | 46               | 11                    | 5                      | 1                          | 63                 |
|  | 92.5                   | 40               | 3                     | 3                      | 2                          | 48                 |
| Students' interest in attending                | 25                     | 26               | 21                    | 13                     | 4                          | 64                 |
|  | 60.5                   | 47               | 29                    | 24                     | 13                         | 113                |
|  | 78                     | 26               | 17                    | 14                     | 7                          | 64                 |
|  | 92.5                   | 15               | 17                    | 8                      | 9                          | 49                 |
| Alumni relations                               | 25                     | 17               | 27                    | 18                     | 1                          | 63                 |
|  | 60.5                   | 48               | 44                    | 19                     | 2                          | 113                |
|  | 78                     | 37               | 18                    | 7                      | 1                          | 63                 |
|  | 92.5                   | 27               | 12                    | 8                      | 2                          | 49                 |
| Interview                                      | 25                     | 24               | 20                    | 14                     | 6                          | 64                 |
|  | 60.5                   | 44               | 38                    | 19                     | 10                         | 111                |
|  | 78                     | 26               | 19                    | 15                     | 3                          | 63                 |
|  | 92.5                   | 19               | 17                    | 9                      | 4                          | 49                 |

As was true of associations for freshman admit rate, very few of the variables failed to show a statistically significant association. Level of reported importance for articulation, interest in attending, and interview did not statistically vary by either transfer or freshman admission rate. The ability to pay also failed to show an association for transfer admission rate. The P-values for the associations between each scaled response on factors used to evaluate transfer applications and the transfer admission rate ranges is provided in Table 26, Appendix C.

The frequency of responses to each of the top three factors broken down by transfer admission rate is provided in Tables 27, 28, and 29.

**Table 27: Frequency of Indicator of First Factor by Transfer Admit Rate**

|                         | GPA at post-secondary institution | GPA in high school | Average grades in transferable courses | Articulation with prior institution |    |
|-------------------------|-----------------------------------|--------------------|--|-------------------------------------|----|
| 25                      | 42                                | 0                  | 3                                      | 0                                   |    |
| 60.5                    | 80                                | 1                  | 7                                      | 0                                   |    |
| 78                      | 43                                | 0                  | 3                                      | 1                                   |    |
| 92.5                    | 21                                | 1                  | 5                                      | 0                                   |    |
|                         | Essay or writing sample           | Ability to pay     | Students' interest in attending        | Total                               |    |
| 25                      | 1                                 | 0                  | 0                                      |                                     | 46 |
| 60.5                    | 0                                 | 1                  | 0                                      |                                     | 89 |
| 78                      | 0                                 | 0                  | 1                                      |                                     | 48 |
| 92.5                    | 1                                 | 0                  | 0                                      |                                     | 28 |
| Frequency Missing = 175 |                                   |                    |  |                                     |    |

**Table 28: Frequency of Indicator of Second Factor by Transfer Admit Rate**

|                         | GPA at post-secondary institution           | GPA in high school                  | Average grades in transferable courses | Scores on standardized tests (SAT, ACT) |    |
|-------------------------|---|-------------------------------------|--|---|----|
| 25                      |   | 3                                   | 9                                      | 20                                      | 2  |
| 60.5                    |   | 7                                   | 19                                     | 34                                      | 3  |
| 78                      |   | 4                                   | 10                                     | 19                                      | 1  |
| 92.5                    |   | 4                                   | 4                                      | 8                                       | 1  |
|                         | Quality of prior post-secondary institution | Articulation with prior institution | Essay or writing sample                | Work/extra-curricular activities        |    |
| 25                      |   | 6                                   | 2                                      | 2                                       | 0  |
| 60.5                    |   | 8                                   | 2                                      | 8                                       | 1  |
| 78                      |   | 2                                   | 1                                      | 4                                       | 0  |
| 92.5                    |   | 2                                   | 3                                      | 1                                       | 0  |
|                         | Recom-mendations                            | Students' interest in attending     | Interview                              | Total                                   |    |
| 25                      |   | 1                                   | 0                                      | 0                                       | 45 |
| 60.5                    |   | 3                                   | 2                                      | 1                                       | 88 |
| 78                      |   | 3                                   | 1                                      | 1                                       | 46 |
| 92.5                    |   | 3                                   | 0                                      | 0                                       | 26 |
| Frequency Missing = 181 |   |                                     |  |   |    |

**Table 29: Frequency of Indicator of Third Factor by Transfer Admit Rate**

|                         | GPA at post-secondary institution           | GPA in high school     | Average grades in transferable courses | Scores on standardized tests (SAT, ACT) |  |
|-------------------------|---|------------------------|--|---|--|
| 25                      | 0   | 2                      | 3                                      | 7                                       |  |
| 60.5                    | 0   | 9                      | 12                                     | 9                                       |  |
| 78                      | 0   | 9                      | 3                                      | 9                                       |  |
| 92.5                    | 1   | 2                      | 1                                      | 3                                       |  |
|                         | Quality of prior post-secondary institution | Quality of high school | Articulation with prior institution    | Essay or writing sample                 |  |
| 25                      | 5   | 0                      | 3                                      | 8                                       |  |
| 60.5                    | 8   | 2                      | 10                                     | 9                                       |  |
| 78                      | 3   | 0                      | 4                                      | 6                                       |  |
| 92.5                    | 3   | 0                      | 1                                      | 2                                       |  |
|                         | Work/extra-curricular activities            | Recommendations        | Ability to pay                         | State or county of residence            |  |
| 25                      | 2   | 7                      | 0                                      | 0                                       |  |
| 60.5                    | 1   | 11                     | 2                                      | 1                                       |  |
| 78                      | 0   | 4                      | 0                                      | 0                                       |  |
| 92.5                    | 1   | 4                      | 0                                      | 0                                       |  |
|                         | Students' interest in attending             | Interview              | Total                                  |   |  |
| 25                      | 2   | 3                      | 42                                     |   |  |
| 60.5                    | 5   | 5                      | 84                                     |   |  |
| 78                      | 1   | 3                      | 42                                     |   |  |
| 92.5                    | 4   | 0                      | 22                                     |   |  |
| Frequency Missing = 196 |   |                        |  |   |  |

Grade point average at prior institution was the top factor for all competitive levels when the top three factors were requested. Transfer admit rate did not have a statistically significant impact on responses for the top three factors. This indicates that the number of transfer applicants an institution accepts is not related to the priority order that institution places on its transfer evaluation factors. The P-values for the associations

between the responses and the transfer admission rates are listed in Table 30, Appendix C.

The frequency of responses to the additional factors broken down by transfer admission rate is provided in Table 31.

**Table 31: Frequency of Responses on Additional Factors by Transfer Admit Rate**

| Variable  | Transfer admit rate | Plus | Neutral | Minus | Total Responses |
|---|---------------------|------|---------|-------|-----------------|
| Received a GED                                  | 25                  | 4    | 55      | 6     | 65              |
|   | 60.5                | 3    | 105     | 6     | 114             |
|   | 78                  | 2    | 58      | 4     | 64              |
|   | 92.5                | 0    | 47      | 1     | 48              |
| Received an associate degree                    | 25                  | 22   | 42      | 1     | 65              |
|   | 60.5                | 48   | 66      | 0     | 114             |
|   | 78                  | 30   | 33      | 0     | 63              |
|   | 92.5                | 20   | 29      | 0     | 49              |
| Attended a community college                    | 25                  | 14   | 50      | 1     | 65              |
|   | 60.5                | 21   | 91      | 1     | 113             |
|   | 78                  | 11   | 52      | 0     | 63              |
|   | 92.5                | 5    | 43      | 0     | 48              |
| Attended a highly competitive four-year College | 25                  | 43   | 22      | 0     | 65              |
|   | 60.5                | 59   | 53      | 2     | 114             |
|   | 78                  | 26   | 37      | 0     | 63              |
|   | 92.5                | 23   | 24      | 1     | 48              |
| More Than 60 hours transferable credit          | 25                  | 14   | 41      | 10    | 65              |
|   | 60.5                | 39   | 73      | 2     | 114             |
|   | 78                  | 21   | 41      | 2     | 64              |
|   | 92.5                | 11   | 35      | 3     | 49              |
| Visited the campus                              | 25                  | 20   | 44      | 1     | 65              |
|   | 60.5                | 45   | 68      | 1     | 114             |
|   | 78                  | 22   | 42      | 0     | 64              |
|   | 92.5                | 23   | 25      | 0     | 48              |
| Frequently contacted the admission office       | 25                  | 17   | 47      | 1     | 65              |
|   | 60.5                | 29   | 84      | 1     | 114             |
|   | 78                  | 18   | 45      | 0     | 63              |
|   | 92.5                | 16   | 32      | 0     | 48              |
| Over 25 years old                               | 25                  | 3    | 59      | 3     | 65              |
|   | 60.5                | 6    | 105     | 2     | 113             |
|   | 78                  | 6    | 56      | 1     | 63              |
|   | 92.5                | 0    | 47      | 1     | 48              |
| Particular academic or professional focus       | 25                  | 27   | 38      | 0     | 65              |
|   | 60.5                | 41   | 72      | 1     | 114             |
|   | 78                  | 22   | 41      | 0     | 63              |
|   | 92.5                | 15   | 33      | 0     | 48              |
| Plans to enroll full-time                       | 25                  | 30   | 33      | 0     | 63              |
|   | 60.5                | 39   | 76      | 0     | 115             |
|   | 78                  | 19   | 44      | 0     | 63              |
|   | 92.5                | 14   | 34      | 0     | 48              |
| Plans to enroll part-time                       | 25                  | 1    | 42      | 17    | 60              |
|   | 60.5                | 3    | 101     | 10    | 114             |
|   | 78                  | 2    | 57      | 3     | 62              |
|   | 92.5                | 2    | 45      | 1     | 48              |

Attending a highly competitive four-year institution was the most often listed plus factor for the most competitive institutions for transfers, while those same institutions

showed some tendency to list planning to enroll part-time or having over 60 hours of credit as minus factors. Those same additional factors, attending a highly competitive four-year college, having over 60 hours of transferable credit, and planning to enroll in part-time status, were all significantly associated with the transfer admission rate. Table 32 in Appendix C provides the P-values for the associations between each of the additional factors and transfer admission rate.

### Total Enrollment

The average institutional size (headcount) of respondents was 4,545. In order to analyze total enrollment for frequency and association with dependent variable responses, five categories were created: 1,500 (enrollment between 0 – 3,000); 4,000 (3,000 – 5,000); 7,500 (5,000 – 10,000); 12,500 (10,000 – 15,000); 17,500 (15,000 >). Like the measures of selectivity, these ranges were established four-years ago by NACAC and were used to establish a baseline for analyzing frequencies and associations between enrollment size and the dependent variables, while regression analyses were conducted with exact numeric values. The values were useful as over several years of data that NACAC has on survey respondents the samples in the ranges reflect the larger population. Use of these ranges permits ease for policy makers, institutional leaders, and future researchers in comparing the results with those found for the survey section pertaining to traditional applicants. The frequency of responses in each range is provided in Table 33.

**Table 33: Enrollment Size**

| Institutional<br>Enrollment | Frequency | Percentage |
|-----------------------------|-----------|------------|
| 1500                        | 251       | 69.53      |
| 4000                        | 35        | 9.70       |
| 7500                        | 24        | 6.65       |
| 12,500                      | 17        | 4.71       |
| 17,500                      | 34        | 9.42       |

Using these ranges, Table 34 provides the frequency of responses by total enrollment.



**Table 34: Frequency of Response on Scaled Items by Institutional Enrollment**

| Variable                                       | Institutional Enrollment | No Importance | Limited Importance | Moderate Importance | Considerable Importance | Total Responses |
|--|--------------------------|---------------|--------------------|---------------------|-------------------------|-----------------|
| GPA at post-secondary institution              | 1500                     | 4             | 3                  | 16                  | 193                     | 216             |
|  | 4000                     | 1             | 1                  | 0                   | 26                      | 28              |
|  | 7500                     | 0             | 0                  | 0                   | 20                      | 20              |
|  | 12500                    | 0             | 0                  | 0                   | 14                      | 14              |
|  | 17500                    | 0             | 0                  | 0                   | 28                      | 28              |
| GPA at high school                             | 1500                     | 15            | 69                 | 99                  | 29                      | 212             |
|  | 4000                     | 5             | 10                 | 10                  | 2                       | 27              |
|  | 7500                     | 2             | 7                  | 9                   | 2                       | 20              |
|  | 12500                    | 0             | 8                  | 6                   | 0                       | 14              |
|  | 17500                    | 7             | 10                 | 9                   | 2                       | 28              |
| Average of grades in transferable courses      | 1500                     | 17            | 22                 | 67                  | 106                     | 212             |
|  | 4000                     | 0             | 1                  | 3                   | 23                      | 27              |
|  | 7500                     | 2             | 0                  | 7                   | 10                      | 19              |
|  | 12500                    | 1             | 1                  | 0                   | 12                      | 14              |
|  | 17500                    | 3             | 0                  | 1                   | 23                      | 27              |
| Scores on standardized tests (ACT, SAT)        | 1500                     | 31            | 80                 | 82                  | 21                      | 214             |
|  | 4000                     | 7             | 12                 | 6                   | 1                       | 26              |
|  | 7500                     | 5             | 8                  | 6                   | 1                       | 20              |
|  | 12500                    | 2             | 11                 | 1                   | 0                       | 14              |
|  | 17500                    | 10            | 9                  | 8                   | 0                       | 27              |
| Quality of prior post-secondary institution(s) | 1500                     | 26            | 76                 | 81                  | 29                      | 212             |
|  | 4000                     | 7             | 8                  | 11                  | 2                       | 28              |
|  | 7500                     | 5             | 6                  | 9                   | 0                       | 20              |
|  | 12500                    | 7             | 2                  | 4                   | 1                       | 14              |
|  | 17500                    | 11            | 7                  | 6                   | 3                       | 27              |
| Quality of high school                         | 1500                     | 59            | 92                 | 54                  | 8                       | 213             |
|  | 4000                     | 12            | 9                  | 6                   | 1                       | 28              |
|  | 7500                     | 8             | 9                  | 3                   | 0                       | 20              |
|  | 12500                    | 9             | 4                  | 1                   | 0                       | 14              |
|  | 17500                    | 13            | 12                 | 2                   | 0                       | 27              |
| Articulation with prior institution            | 1500                     | 80            | 59                 | 49                  | 24                      | 212             |
|  | 4000                     | 9             | 5                  | 9                   | 4                       | 27              |
|  | 7500                     | 6             | 9                  | 2                   | 3                       | 20              |
|  | 12500                    | 5             | 4                  | 3                   | 2                       | 14              |
|  | 17500                    | 11            | 6                  | 4                   | 6                       | 27              |
| Essay or writing sample                        | 1500                     | 59            | 42                 | 61                  | 50                      | 212             |
|  | 4000                     | 5             | 9                  | 8                   | 6                       | 28              |
|  | 7500                     | 8             | 4                  | 6                   | 2                       | 20              |
|  | 12500                    | 6             | 5                  | 2                   | 1                       | 14              |
|  | 17500                    | 17            | 4                  | 5                   | 2                       | 28              |
| Work/extra-curricular Activities               | 1500                     | 62            | 85                 | 56                  | 10                      | 213             |
|  | 4000                     | 5             | 10                 | 11                  | 2                       | 28              |
|  | 7500                     | 9             | 6                  | 4                   | 1                       | 20              |
|  | 12500                    | 8             | 5                  | 0                   | 1                       | 14              |
|  | 17500                    | 15            | 5                  | 6                   | 1                       | 27              |
| Recommendations                                | 1500                     | 38            | 57                 | 69                  | 49                      | 213             |
|  | 4000                     | 6             | 9                  | 8                   | 5                       | 28              |
|  | 7500                     | 7             | 6                  | 5                   | 2                       | 20              |
|  | 12500                    | 9             | 2                  | 2                   | 1                       | 14              |
|  | 17500                    | 16            | 7                  | 5                   | 0                       | 28              |
| Ability to pay                                 | 1500                     | 150           | 29                 | 26                  | 8                       | 213             |
|  | 4000                     | 22            | 5                  | 0                   | 0                       | 27              |
|  | 7500                     | 20            | 0                  | 0                   | 0                       | 20              |
|  | 12500                    | 14            | 0                  | 0                   | 0                       | 14              |
|  | 17500                    | 25            | 1                  | 0                   | 0                       | 26              |
| State or county of residence                   | 1500                     | 162           | 33                 | 15                  | 2                       | 212             |
|  | 4000                     | 23            | 5                  | 0                   | 0                       | 28              |
|  | 7500                     | 15            | 4                  | 1                   | 0                       | 20              |
|  | 12500                    | 9             | 1                  | 2                   | 2                       | 14              |
|  | 17500                    | 16            | 6                  | 3                   | 2                       | 27              |
| Race/ethnicity                                 | 1500                     | 148           | 32                 | 26                  | 4                       | 210             |
|  | 4000                     | 13            | 6                  | 7                   | 1                       | 27              |
|  | 7500                     | 10            | 6                  | 3                   | 1                       | 20              |
|  | 12500                    | 11            | 0                  | 2                   | 1                       | 14              |
|  | 17500                    | 20            | 5                  | 2                   | 1                       | 28              |

**Table 34 continued**

|                                 |       |    |    |    |    |     |
|---------------------------------|-------|----|----|----|----|-----|
| Students' interest in attending | 1500  | 62 | 64 | 50 | 36 | 212 |
|                                 | 4000  | 14 | 6  | 7  | 1  | 28  |
|                                 | 7500  | 10 | 6  | 4  | 0  | 20  |
|                                 | 12500 | 11 | 3  | 0  | 0  | 14  |
|                                 | 17500 | 18 | 6  | 4  | 0  | 28  |
| Alumni relations                | 1500  | 95 | 65 | 44 | 7  | 211 |
|                                 | 4000  | 6  | 15 | 7  | 0  | 28  |
|                                 | 7500  | 9  | 10 | 1  | 0  | 20  |
|                                 | 12500 | 9  | 3  | 1  | 1  | 14  |
|                                 | 17500 | 17 | 9  | 1  | 0  | 27  |
| Interview                       | 1500  | 59 | 77 | 52 | 23 | 211 |
|                                 | 4000  | 11 | 7  | 8  | 2  | 28  |
|                                 | 7500  | 14 | 6  | 0  | 0  | 20  |
|                                 | 12500 | 12 | 1  | 0  | 0  | 13  |
|                                 | 17500 | 24 | 3  | 0  | 0  | 27  |

Grade point average at post-secondary institution remains the factor reported as having the greatest weight across the institutional sizes. The responses appear to vary more widely when examined by institutional size than was the case for the two measures of competitiveness. These differences were significant for all but two factors: articulation and race/ethnicity. In all other cases, statistically significant associations were found between the measure of total enrollment size and the weighting given to the scaled admission standards. The P-values for the associations between the responses on the scaled items and institutional size are detailed in Table 35, Appendix C.

The responses to the question of which factors were the top three used yielded similar responses to the scaled items. The frequency of these responses is listed in Tables 36, 37 and 38.

**Table 36: Frequency of Indicator of First Factor by Institutional Enrollment**

|                         | GPA at post-<br>secondary<br>institution | GPA in high<br>school | Average<br>grades in<br>transferable<br>courses | Articulation with<br>prior institution |  |
|-------------------------|--|-----------------------|---|--|--|
| 1500                    | 135                                      | 2                     | 10  | 0                                      |  |
| 4000                    | 15                                       | 0                     | 3   | 1                                      |  |
| 7500                    | 15                                       | 0                     | 1   | 0                                      |  |
| 12,500                  | 8  | 0                     | 2   | 0                                      |  |
| 17,500                  | 20                                       | 0                     | 3   | 0                                      |  |
|                         | Essay or writing<br>sample               | Ability to pay        | Students'<br>interest in<br>attending           | Total                                  |  |
| 1500                    | 1  | 1                     | 1   | 150                                    |  |
| 4000                    | 0  | 0                     | 0   | 19                                     |  |
| 7500                    | 0  | 0                     | 0   | 16                                     |  |
| 12,500                  | 1  | 0                     | 0   | 11                                     |  |
| 17,500                  | 0  | 0                     | 0   | 23                                     |  |
| Frequency Missing = 167 |  |                       |   |  |  |

**Table 37: Frequency of Indicator of Second Factor by Institutional Enrollment**

|                         | GPA at post-secondary institution           | GPA in high school                  | Average grades in transferable courses | Scores on standardized tests (SAT, ACT) |  |
|-------------------------|---|-------------------------------------|--|---|--|
| 1500                    | 10  | 25                                  | 52                                     | 5                                       |  |
| 4000                    | 3   | 2                                   | 9                                      | 0                                       |  |
| 7500                    | 1   | 6                                   | 7                                      | 0                                       |  |
| 12,500                  | 3   | 3                                   | 4                                      | 1                                       |  |
| 17,500                  | 2   | 7                                   | 11                                     | 1                                       |  |
|                         | Quality of prior post-secondary institution | Articulation with prior institution | Essay or writing sample                | Work/extra-curricular activities        |  |
| 1500                    | 15  | 5                                   | 15                                     | 1                                       |  |
| 4000                    | 2   | 2                                   | 0                                      | 0                                       |  |
| 7500                    | 0   | 1                                   | 0                                      | 0                                       |  |
| 12,500                  | 0   | 0                                   | 0                                      | 0                                       |  |
| 17,500                  | 2   | 0                                   | 0                                      | 0                                       |  |
|                         | Recom-mendations                            | Students' interest in attending     | Interview                              | Total                                   |  |
| 1500                    | 11  | 5                                   | 2                                      | 146                                     |  |
| 4000                    | 0   | 0                                   | 0                                      | 18                                      |  |
| 7500                    | 0   | 0                                   | 0                                      | 15                                      |  |
| 12,500                  | 0   | 0                                   | 0                                      | 11                                      |  |
| 17,500                  | 0   | 0                                   | 0                                      | 23                                      |  |
| Frequency Missing = 173 |   |                                     |  |   |  |

**Table 38: Frequency of Indicator of Third Factor by Institutional Enrolment**

|                         | GPA at post-secondary institution           | GPA in high school     | Average grades in transferable courses | Scores on standardized tests (SAT, ACT) |  |
|-------------------------|---|------------------------|--|---|--|
| 1500                    | 0   | 17                     | 10                                     | 22                                      |  |
| 4000                    | 1   | 2                      | 2                                      | 0                                       |  |
| 7500                    | 0   | 0                      | 3                                      | 3                                       |  |
| 12,500                  | 0   | 1                      | 0                                      | 2                                       |  |
| 17,500                  | 0   | 1                      | 4                                      | 4                                       |  |
|                         | Quality of prior post-secondary institution | Quality of high school | Articulation with prior institution    | Essay or writing sample                 |  |
| 1500                    | 14  | 1                      | 12                                     | 17                                      |  |
| 4000                    | 2   | 0                      | 0                                      | 6                                       |  |
| 7500                    | 2   | 0                      | 2                                      | 0                                       |  |
| 12,500                  | 1   | 0                      | 1                                      | 0                                       |  |
| 17,500                  | 0   | 1                      | 3                                      | 4                                       |  |
|                         | Work/extra-curricular activities            | Recommendations        | Ability to pay                         | State or county of residence            |  |
| 1500                    | 2   | 24                     | 2                                      | 0                                       |  |
| 4000                    | 0   | 1                      | 0                                      | 0                                       |  |
| 7500                    | 0   | 2                      | 0                                      | 0                                       |  |
| 12,500                  | 1   | 1                      | 0                                      | 0                                       |  |
| 17,500                  | 1   | 0                      | 0                                      | 1                                       |  |
|                         | Students' interest in attending             | Interview              | Total                                  |   |  |
| 1500                    | 11  | 12                     | 144                                    |   |  |
| 4000                    | 1   | 1                      | 16                                     |   |  |
| 7500                    | 0   | 0                      | 12                                     |   |  |
| 12,500                  | 0   | 0                      | 7                                      |   |  |
| 17,500                  | 0   | 0                      | 19                                     |   |  |
| Frequency Missing = 188 |   |                        |  |   |  |

While the responses to the second factor had some differences similar to those found on the scaled items, only the responses on the third most important factor had a statistically significant association with total enrollment. The P-values for the three factors' associations with institutional enrollment are provided in Table 39, Appendix C.

Frequency of responses on the additional factors used in the evaluation of transfer applicants, broken down by institutional enrollment, is provided in Table 40.

**Table 40: Frequency of Responses on Additional Factors by Institutional Enrollment**

| Variable  | Institutional Enrollment | Plus | Neutral | Minus | Total Responses |
|---|--------------------------|------|---------|-------|-----------------|
| Received a GED                                  | 1500                     | 7    | 195     | 12    | 214             |
|   | 4000                     | 1    | 24      | 3     | 28              |
|   | 7500                     | 0    | 17      | 3     | 20              |
|   | 12500                    | 2    | 12      | 0     | 14              |
|   | 17500                    | 0    | 27      | 0     | 27              |
| Received an associate degree                    | 1500                     | 88   | 127     | 0     | 215             |
|   | 4000                     | 6    | 22      | 0     | 28              |
|   | 7500                     | 10   | 9       | 1     | 20              |
|   | 12500                    | 8    | 6       | 0     | 14              |
|   | 17500                    | 11   | 15      | 0     | 26              |
| Attended a community college                    | 1500                     | 40   | 172     | 1     | 213             |
|   | 4000                     | 2    | 26      | 0     | 28              |
|   | 7500                     | 5    | 14      | 1     | 20              |
|   | 12500                    | 4    | 10      | 0     | 14              |
|   | 17500                    | 4    | 22      | 0     | 26              |
| Attended a highly competitive four-year College | 1500                     | 121  | 91      | 2     | 214             |
|   | 4000                     | 14   | 14      | 0     | 28              |
|   | 7500                     | 11   | 9       | 0     | 20              |
|   | 12500                    | 5    | 9       | 0     | 14              |
|   | 17500                    | 5    | 20      | 1     | 26              |
| More Than 60 hours transferable credit          | 1500                     | 61   | 141     | 14    | 216             |
|   | 4000                     | 6    | 19      | 3     | 28              |
|   | 7500                     | 7    | 12      | 1     | 20              |
|   | 12500                    | 6    | 8       | 0     | 14              |
|   | 17500                    | 8    | 18      | 0     | 26              |
| Visited the campus                              | 1500                     | 99   | 114     | 1     | 214             |
|   | 4000                     | 8    | 20      | 0     | 28              |
|   | 7500                     | 7    | 12      | 1     | 20              |
|   | 12500                    | 1    | 13      | 0     | 14              |
|   | 17500                    | 1    | 26      | 0     | 27              |
| Frequently contacted the admission office       | 1500                     | 78   | 134     | 1     | 213             |
|   | 4000                     | 5    | 23      | 0     | 28              |
|   | 7500                     | 3    | 16      | 1     | 20              |
|   | 12500                    | 0    | 14      | 0     | 14              |
|   | 17500                    | 0    | 27      | 0     | 27              |
| Over 25 years old                               | 1500                     | 5    | 201     | 6     | 212             |
|   | 4000                     | 2    | 26      | 0     | 28              |
|   | 7500                     | 2    | 17      | 1     | 20              |
|   | 12500                    | 3    | 11      | 0     | 14              |
|   | 17500                    | 3    | 23      | 0     | 26              |
| Particular academic or professional focus       | 1500                     | 79   | 134     | 1     | 214             |
|   | 4000                     | 8    | 20      | 0     | 28              |
|   | 7500                     | 12   | 8       | 0     | 20              |
|   | 12500                    | 3    | 11      | 0     | 14              |
|   | 17500                    | 8    | 18      | 0     | 26              |
| Plans to enroll full-time                       | 1500                     | 86   | 127     | 0     | 213             |
|   | 4000                     | 6    | 22      | 0     | 28              |
|   | 7500                     | 8    | 12      | 0     | 20              |
|   | 12500                    | 4    | 10      | 0     | 14              |
|   | 17500                    | 3    | 23      | 0     | 26              |
| Plans to enroll part-time                       | 1500                     | 7    | 175     | 25    | 207             |
|   | 4000                     | 0    | 25      | 3     | 28              |
|   | 7500                     | 1    | 16      | 3     | 20              |
|   | 12500                    | 1    | 12      | 1     | 14              |
|   | 17500                    | 0    | 25      | 1     | 26              |

Size of institution had different associations with plus factors than did the measures of competitiveness. Statistically significant associations between institutional enrollment and how additional factors were used were found for having attended a highly competitive four-year institution, having visited campus, having frequently contacted the admission office, being over 25, and intending to enroll full-time, although planning to enroll part-time did not show a significant association. The P-values for the associations for all of the additional factors with institutional enrollment is provided in Table 41, Appendix C.

#### Freshman Class Size

The average reported freshman class size was 996. Like total institutional enrollment, respondents were divided into five subsets for the sake of analysis of frequency and association of responses. These five freshman class size categories were 125 (0-250); 625 (250-1,000); 1,500 (1,000-2,000); 3,000 (2,000-4,000); and 6,000 (> 4,000). As was done with the other independent variables, the ranges that were used for frequencies and associations were established by NACAC, while regression analysis utilized exact numeric responses. Table 42 provides the number of surveys received from institutions in each of these ranges.



**Table 42: Enrollment Size**

| Freshman Class Size | Frequency | Percentage |
|---------------------|-----------|------------|
| 125                 | 89        | 26.65      |
| 625                 | 164       | 49.10      |
| 1500                | 34        | 10.18      |
| 3000                | 32        | 9.58       |
| 6000                | 15        | 4.49       |

Like institutional enrollment, response rates varied by freshman class size. The frequency of responses to the scaled questions broken down by freshman class size is provided in Table 43.

**Table 43: Frequency of Response on Scaled Items by Freshmen Enrollment**

| Variable                                       | Freshman<br>Enrolment | No<br>Importance | Limited<br>Importance | Moderate<br>Importance | Considerable<br>Importance | Total<br>Responses |
|--|-----------------------|------------------|-----------------------|------------------------|----------------------------|--------------------|
| GPA at post-secondary institution              | 125                   | 3                | 0                     | 7                      | 73                         | 83                 |
|  | 625                   | 2                | 4                     | 9                      | 139                        | 154                |
|  | 1500                  | 0                | 1                     | 0                      | 27                         | 28                 |
|  | 3000                  | 0                | 0                     | 0                      | 30                         | 30                 |
|  | 6000                  | 0                | 0                     | 0                      | 13                         | 13                 |
| GPA at high school                             | 125                   | 8                | 29                    | 38                     | 7                          | 82                 |
|  | 625                   | 10               | 51                    | 69                     | 21                         | 151                |
|  | 1500                  | 3                | 9                     | 14                     | 2                          | 28                 |
|  | 3000                  | 5                | 12                    | 11                     | 2                          | 30                 |
|  | 6000                  | 3                | 5                     | 4                      | 1                          | 13                 |
| Average of grades in transferable courses      | 125                   | 5                | 12                    | 22                     | 43                         | 82                 |
|  | 625                   | 14               | 11                    | 44                     | 81                         | 150                |
|  | 1500                  | 0                | 0                     | 10                     | 17                         | 27                 |
|  | 3000                  | 4                | 1                     | 2                      | 23                         | 30                 |
|  | 6000                  | 1                | 0                     | 0                      | 11                         | 12                 |
| Scores on standardized tests (ACT, SAT)        | 125                   | 15               | 36                    | 27                     | 5                          | 83                 |
|  | 625                   | 23               | 56                    | 57                     | 15                         | 151                |
|  | 1500                  | 6                | 11                    | 11                     | 0                          | 28                 |
|  | 3000                  | 10               | 14                    | 5                      | 1                          | 30                 |
|  | 6000                  | 4                | 4                     | 4                      | 0                          | 12                 |
| Quality of prior post-secondary institution(s) | 125                   | 13               | 31                    | 30                     | 9                          | 83                 |
|  | 625                   | 20               | 51                    | 59                     | 21                         | 151                |
|  | 1500                  | 6                | 8                     | 13                     | 1                          | 28                 |
|  | 3000                  | 14               | 7                     | 6                      | 3                          | 30                 |
|  | 6000                  | 5                | 3                     | 3                      | 1                          | 12                 |
| Quality of high school                         | 125                   | 30               | 32                    | 20                     | 0                          | 82                 |
|  | 625                   | 40               | 69                    | 37                     | 7                          | 153                |
|  | 1500                  | 10               | 11                    | 6                      | 1                          | 28                 |
|  | 3000                  | 18               | 10                    | 2                      | 0                          | 30                 |
|  | 6000                  | 6                | 6                     | 0                      | 0                          | 12                 |
| Articulation with prior institution            | 125                   | 34               | 20                    | 19                     | 9                          | 82                 |
|  | 625                   | 56               | 42                    | 38                     | 15                         | 151                |
|  | 1500                  | 5                | 12                    | 5                      | 5                          | 27                 |
|  | 3000                  | 15               | 7                     | 6                      | 2                          | 30                 |
|  | 6000                  | 3                | 3                     | 1                      | 5                          | 12                 |
| Essay or writing sample                        | 125                   | 22               | 21                    | 16                     | 24                         | 83                 |
|  | 625                   | 40               | 32                    | 45                     | 34                         | 151                |
|  | 1500                  | 11               | 5                     | 10                     | 2                          | 28                 |
|  | 3000                  | 15               | 6                     | 5                      | 4                          | 30                 |
|  | 6000                  | 9                | 3                     | 1                      | 0                          | 13                 |
| Work/extracurricular activities                | 125                   | 26               | 37                    | 15                     | 5                          | 83                 |
|  | 625                   | 41               | 56                    | 48                     | 7                          | 152                |
|  | 1500                  | 10               | 8                     | 9                      | 1                          | 28                 |
|  | 3000                  | 16               | 7                     | 5                      | 2                          | 30                 |
|  | 6000                  | 7                | 4                     | 1                      | 0                          | 12                 |
| Recommendations                                | 125                   | 18               | 19                    | 24                     | 22                         | 83                 |
|  | 625                   | 26               | 45                    | 53                     | 28                         | 152                |
|  | 1500                  | 7                | 9                     | 8                      | 4                          | 28                 |
|  | 3000                  | 18               | 4                     | 7                      | 1                          | 30                 |
|  | 6000                  | 7                | 6                     | 0                      | 0                          | 13                 |
| Ability to pay                                 | 125                   | 54               | 11                    | 11                     | 7                          | 83                 |
|  | 625                   | 114              | 23                    | 14                     | 1                          | 152                |
|  | 1500                  | 26               | 1                     | 0                      | 0                          | 27                 |
|  | 3000                  | 28               | 0                     | 0                      | 0                          | 28                 |
|  | 6000                  | 12               | 1                     | 0                      | 0                          | 13                 |
| State or county of residence                   | 125                   | 73               | 6                     | 3                      | 1                          | 83                 |
|  | 625                   | 108              | 30                    | 12                     | 1                          | 151                |
|  | 1500                  | 20               | 7                     | 1                      | 0                          | 28                 |
|  | 3000                  | 22               | 2                     | 3                      | 3                          | 30                 |
|  | 6000                  | 5                | 5                     | 1                      | 1                          | 12                 |
| Race/ethnicity                                 | 125                   | 69               | 6                     | 5                      | 2                          | 82                 |
|  | 625                   | 90               | 33                    | 24                     | 3                          | 150                |
|  | 1500                  | 15               | 5                     | 6                      | 1                          | 27                 |
|  | 3000                  | 20               | 5                     | 3                      | 2                          | 30                 |
|  | 6000                  | 10               | 2                     | 1                      | 0                          | 13                 |

**Table 43 continued**

|                                 |      |    |    |    |    |     |
|---------------------------------|------|----|----|----|----|-----|
| Students' interest in attending | 125  | 25 | 14 | 23 | 21 | 83  |
|                                 | 625  | 51 | 54 | 31 | 15 | 151 |
|                                 | 1500 | 13 | 9  | 6  | 0  | 28  |
|                                 | 3000 | 20 | 7  | 3  | 0  | 30  |
|                                 | 6000 | 9  | 2  | 2  | 0  | 13  |
| Alumni relations                | 125  | 50 | 23 | 6  | 4  | 83  |
|                                 | 625  | 54 | 52 | 42 | 2  | 150 |
|                                 | 1500 | 12 | 13 | 3  | 0  | 28  |
|                                 | 3000 | 19 | 7  | 3  | 1  | 30  |
|                                 | 6000 | 6  | 6  | 0  | 0  | 12  |
| Interview                       | 125  | 30 | 26 | 20 | 7  | 83  |
|                                 | 625  | 35 | 57 | 40 | 18 | 150 |
|                                 | 1500 | 17 | 7  | 3  | 1  | 28  |
|                                 | 3000 | 27 | 2  | 0  | 0  | 29  |
|                                 | 6000 | 10 | 2  | 0  | 0  | 12  |

Similar again to institutional enrollment, the different response rates for the different categories of freshman class size showed an association for all but the same two factors, articulation and race/ethnicity. The P-values for the associations between the responses on the scaled items and the size of the freshman class are provided in Table 44, Appendix C.

The frequency of responses by freshman class size for the top three factors in the transfer admission process are provided in Tables 45, 46, and 47.

**Table 45: Frequency of Indicator of First Factor by Freshman Enrollment**

|                            | GPA at post-<br>secondary<br>institution | GPA in high<br>school | Average<br>grades in<br>transferable<br>courses | Articulation with<br>prior institution |  |
|----------------------------|--|-----------------------|---|--|--|
| 125                        | 45                                       | 0                     | 3   | 0                                      |  |
| 625                        | 103                                      | 2                     | 6   | 1                                      |  |
| 1500                       | 17                                       | 0                     | 3   | 0                                      |  |
| 3000                       | 21                                       | 0                     | 3   | 0                                      |  |
| 6000                       | 8  | 0                     | 2   | 0                                      |  |
| Essay or writing<br>sample |  | Ability to pay        | Students'<br>interest in<br>attending           | Total                                  |  |
| 125                        | 1  | 0                     | 1   | 50                                     |  |
| 625                        | 0  | 1                     | 0   | 113                                    |  |
| 1500                       | 0  | 0                     | 0   | 20                                     |  |
| 3000                       | 1  | 0                     | 0   | 25                                     |  |
| 6000                       | 0  | 0                     | 0   | 10                                     |  |
| Frequency Missing = 168    |  |                       |   |  |  |

**Table 46: Frequency of Indicator of Second Factor by Freshmen Enrollment**

|                         | GPA at post-secondary institution           | GPA in high school                  | Average grades in transferable courses | Scores on standardized tests (SAT, ACT) |  |
|-------------------------|---|-------------------------------------|--|---|--|
| 125                     | 3   | 8                                   | 17                                     | 0                                       |  |
| 625                     | 7   | 17                                  | 43                                     | 4                                       |  |
| 1500                    | 2   | 7                                   | 9                                      | 0                                       |  |
| 3000                    | 4   | 7                                   | 11                                     | 2                                       |  |
| 6000                    | 1   | 3                                   | 5                                      | 0                                       |  |
|                         | Quality of prior post-secondary institution | Articulation with prior institution | Essay or writing sample                | Work/extra-curricular activities        |  |
| 125                     | 5   | 0                                   | 9                                      | 1                                       |  |
| 625                     | 12  | 6                                   | 7                                      | 0                                       |  |
| 1500                    | 0   | 2                                   | 0                                      | 0                                       |  |
| 3000                    | 1   | 0                                   | 0                                      | 0                                       |  |
| 6000                    | 1   | 0                                   | 0                                      | 0                                       |  |
|                         | Recom-mendations                            | Students' interest in attending     | Interview                              | Total                                   |  |
| 125                     | 1   | 2                                   | 0                                      | 46                                      |  |
| 625                     | 9   | 3                                   | 2                                      | 110                                     |  |
| 1500                    | 0   | 0                                   | 0                                      | 20                                      |  |
| 3000                    | 0   | 0                                   | 0                                      | 25                                      |  |
| 6000                    | 0   | 0                                   | 0                                      | 10                                      |  |
| Frequency Missing = 175 |   |                                     |  |   |  |

**Table 47: Frequency of Indicator of Third Factor by Freshman Enrollment**

|                         | GPA at post-secondary institution           | GPA in high school     | Average grades in transferable courses | Scores on standardized tests (SAT, ACT) |    |
|-------------------------|---|------------------------|--|---|----|
|                         | 125   | 0                      | 3                                      | 1                                       | 8  |
|                         | 625   | 0                      | 15                                     | 10                                      | 14 |
|                         | 1500  | 1                      | 1                                      | 3                                       | 2  |
|                         | 3000  | 0                      | 0                                      | 2                                       | 5  |
|                         | 6000  | 0                      | 1                                      | 2                                       | 2  |
|                         | Quality of prior post-secondary institution | Quality of high school | Articulation with prior institution    | Essay or writing sample                 |    |
|                         | 125   | 2                      | 1                                      | 4                                       | 8  |
|                         | 625   | 15                     | 0                                      | 7                                       | 14 |
|                         | 1500  | 2                      | 0                                      | 2                                       | 2  |
|                         | 3000  | 1                      | 0                                      | 1                                       | 4  |
|                         | 6000  | 0                      | 1                                      | 3                                       | 0  |
|                         | Work/extra-curricular activities            | Recommendations        | Ability to pay                         | State or county of residence            |    |
|                         | 125   | 0                      | 10                                     | 0                                       | 0  |
|                         | 625   | 1                      | 14                                     | 1                                       | 0  |
|                         | 1500  | 2                      | 3                                      | 0                                       | 0  |
|                         | 3000  | 1                      | 1                                      | 0                                       | 1  |
|                         | 6000  | 0                      | 0                                      | 0                                       | 0  |
|                         | Students' interest in attending             | Interview              | Total                                  |   |    |
|                         | 125   | 5                      | 4                                      | 46                                      |    |
|                         | 625   | 7                      | 8                                      | 106                                     |    |
|                         | 1500  | 0                      | 1                                      | 19                                      |    |
|                         | 3000  | 0                      | 0                                      | 16                                      |    |
|                         | 6000  | 0                      | 0                                      | 9                                       |    |
| Frequency Missing = 190 |   |                        |  |   |    |

Freshman class size, as with other independent variables, held grade point average at post-secondary institution as the top factor in admission across all categories, but appeared to show more variation in the second and third most important factors. Again,

freshman class size mirrored the behavior of institutional class size, only demonstrating a statistically significant association with the responses to the third most important factor.

The statistical associations between the three factors and P-Values for the three top factors can be seen in the P-values provided in Table 48, Appendix C.

The frequencies for all responses on the additional items, broken down by freshman class size, are provided in Table 49.

**Table 49: Frequency of Responses on Additional Factors by Freshmen Enrollment**

| Variable  | Freshmen enrollment | Plus | Neutral | Minus | Total Responses |
|---|---------------------|------|---------|-------|-----------------|
| Received a GED                                  | 125                 | 1    | 80      | 2     | 83              |
|   | 625                 | 6    | 134     | 13    | 153             |
|   | 1500                | 0    | 26      | 2     | 28              |
|   | 3000                | 2    | 27      | 1     | 30              |
|   | 6000                | 0    | 13      | 0     | 13              |
| Received an associate degree                    | 125                 | 33   | 50      | 0     | 83              |
|   | 625                 | 58   | 95      | 0     | 153             |
|   | 1500                | 14   | 14      | 0     | 28              |
|   | 3000                | 13   | 16      | 1     | 30              |
|   | 6000                | 5    | 7       | 0     | 12              |
| Attended a community college                    | 125                 | 18   | 64      | 0     | 82              |
|   | 625                 | 21   | 131     | 1     | 153             |
|   | 1500                | 7    | 21      | 0     | 28              |
|   | 3000                | 6    | 23      | 1     | 30              |
|   | 6000                | 2    | 10      | 0     | 12              |
| Attended a highly competitive four-year College | 125                 | 38   | 44      | 1     | 83              |
|   | 625                 | 89   | 63      | 1     | 153             |
|   | 1500                | 17   | 11      | 0     | 28              |
|   | 3000                | 8    | 22      | 0     | 30              |
|   | 6000                | 2    | 9       | 1     | 12              |
| More Than 60 hours transferable credit          | 125                 | 24   | 56      | 3     | 83              |
|   | 625                 | 39   | 103     | 12    | 154             |
|   | 1500                | 12   | 15      | 1     | 28              |
|   | 3000                | 9    | 20      | 1     | 30              |
|   | 6000                | 3    | 9       | 0     | 12              |
| Visited the campus                              | 125                 | 44   | 39      | 0     | 83              |
|   | 625                 | 64   | 88      | 1     | 153             |
|   | 1500                | 7    | 21      | 0     | 28              |
|   | 3000                | 3    | 26      | 1     | 30              |
|   | 6000                | 0    | 13      | 0     | 13              |
| Frequently contacted the admission office       | 125                 | 35   | 47      | 0     | 82              |
|   | 625                 | 46   | 106     | 1     | 153             |
|   | 1500                | 5    | 23      | 0     | 28              |
|   | 3000                | 0    | 29      | 1     | 30              |
|   | 6000                | 0    | 13      | 0     | 13              |
| Over 25 years old                               | 125                 | 3    | 78      | 1     | 82              |
|   | 625                 | 4    | 143     | 5     | 152             |
|   | 1500                | 3    | 25      | 0     | 28              |
|   | 3000                | 4    | 25      | 1     | 30              |
|   | 6000                | 1    | 11      | 0     | 12              |
| Particular academic or professional focus       | 125                 | 36   | 47      | 0     | 83              |
|   | 625                 | 47   | 105     | 1     | 153             |
|   | 1500                | 13   | 15      | 0     | 28              |
|   | 3000                | 8    | 21      | 0     | 29              |
|   | 6000                | 5    | 8       | 0     | 13              |
| Plans to enroll full-time                       | 125                 | 35   | 48      | 0     | 83              |
|   | 625                 | 53   | 99      | 0     | 152             |
|   | 1500                | 8    | 20      | 0     | 28              |
|   | 3000                | 7    | 22      | 0     | 29              |
|   | 6000                | 2    | 11      | 0     | 13              |
| Plans to enroll part-time                       | 125                 | 6    | 72      | 5     | 83              |
|   | 625                 | 3    | 123     | 20    | 146             |
|   | 1500                | 1    | 24      | 3     | 28              |
|   | 3000                | 0    | 26      | 3     | 29              |
|   | 6000                | 0    | 12      | 1     | 13              |



Visiting the campus turned up as the most reported plus factor among institutions in the smallest freshman class size category (125) while attending a highly competitive four-year institution was the most reported among those slightly larger (625). Particular academic focus was the most reported for the mid-size freshman class institutions (1,500), while receiving an associate degree had the most plus responses in the two largest freshman class size categories (3,000 and 6,000). Despite the variation in the most reported plus factors, only four of the additional factors had a statistically significant association with the size of the freshman class: attending a highly competitive four-year institution, visiting the campus, frequently contacting the admissions office, and planning to enroll full-time. The P-values for all of the additional factors' associations with freshman class size are provided in Table 50, Appendix C.

#### Transfer Class Size

The last independent variable is also a measure of enrollment: average number of transfer students entering in the fall semester. The average transfer class size among all respondents was 312, far smaller than the 996 average freshman class. As a result, the five categories created for analysis of frequencies and associations with responses are also smaller: 25 (0-50); 100 (50-150); 200 (150-250); 875 (250-1,500); and 2,750 (>1,500), the categories being roughly equivalent to those used for the larger freshman class sizes. The number of surveys received from institutions in each range is provided in Table 51.

**Table 51: Enrollment Size**

| Transfer Class Size | Frequency | Percentage |
|---------------------|-----------|------------|
| 25                  | 72        | 25.44      |
| 100                 | 110       | 38.87      |
| 200                 | 33        | 11.66      |
| 875                 | 55        | 19.43      |
| 2750                | 13        | 4.59       |

The frequency of responses in these ranges on the scaled questions is provided in Table 52.

**Table 52: Frequency of Response on Scaled Items by Transfer enrollment**

| Variable                                       | Transfer Enrollment | No Importance | Limited Importance | Moderate Importance | Considerable Importance | Total Responses |
|--|---------------------|---------------|--------------------|---------------------|-------------------------|-----------------|
| GPA at post-secondary institution              | 25                  | 2             | 0                  | 6                   | 62                      | 70              |
|  | 100                 | 2             | 1                  | 6                   | 100                     | 109             |
|  | 200                 | 0             | 0                  | 1                   | 32                      | 33              |
|  | 875                 | 0             | 3                  | 0                   | 52                      | 55              |
|  | 2750                | 0             | 0                  | 0                   | 12                      | 12              |
| GPA at high school                             | 25                  | 2             | 20                 | 35                  | 11                      | 68              |
|  | 100                 | 10            | 32                 | 53                  | 14                      | 109             |
|  | 200                 | 1             | 13                 | 15                  | 3                       | 32              |
|  | 875                 | 8             | 26                 | 19                  | 2                       | 55              |
|  | 2750                | 5             | 4                  | 3                   | 0                       | 12              |
| Average of grades in transferable courses      | 25                  | 6             | 7                  | 20                  | 36                      | 69              |
|  | 100                 | 8             | 9                  | 35                  | 56                      | 108             |
|  | 200                 | 2             | 3                  | 7                   | 19                      | 31              |
|  | 875                 | 5             | 2                  | 9                   | 37                      | 53              |
|  | 2750                | 1             | 0                  | 0                   | 11                      | 12              |
| Scores on standardized tests (ACT, SAT)        | 25                  | 8             | 22                 | 34                  | 6                       | 70              |
|  | 100                 | 16            | 41                 | 39                  | 13                      | 109             |
|  | 200                 | 4             | 16                 | 10                  | 2                       | 32              |
|  | 875                 | 17            | 25                 | 12                  | 0                       | 54              |
|  | 2750                | 7             | 2                  | 3                   | 0                       | 12              |
| Quality of prior post-secondary institution(s) | 25                  | 5             | 22                 | 33                  | 8                       | 68              |
|  | 100                 | 14            | 41                 | 36                  | 17                      | 108             |
|  | 200                 | 6             | 8                  | 14                  | 5                       | 33              |
|  | 875                 | 18            | 16                 | 18                  | 2                       | 54              |
|  | 2750                | 7             | 3                  | 1                   | 1                       | 12              |
| Quality of high school                         | 25                  | 16            | 29                 | 23                  | 1                       | 69              |
|  | 100                 | 32            | 45                 | 27                  | 4                       | 108             |
|  | 200                 | 11            | 15                 | 5                   | 2                       | 33              |
|  | 875                 | 26            | 22                 | 6                   | 0                       | 54              |
|  | 2750                | 9             | 2                  | 1                   | 0                       | 12              |
| Articulation with prior institution            | 25                  | 31            | 21                 | 13                  | 3                       | 68              |
|  | 100                 | 39            | 28                 | 25                  | 14                      | 106             |
|  | 200                 | 12            | 7                  | 10                  | 4                       | 33              |
|  | 875                 | 16            | 16                 | 11                  | 11                      | 54              |
|  | 2750                | 5             | 4                  | 1                   | 2                       | 12              |
| Essay or writing sample                        | 25                  | 8             | 15                 | 20                  | 26                      | 69              |
|  | 100                 | 31            | 24                 | 34                  | 19                      | 108             |
|  | 200                 | 12            | 7                  | 8                   | 5                       | 32              |
|  | 875                 | 28            | 12                 | 9                   | 6                       | 55              |
|  | 2750                | 7             | 2                  | 3                   | 0                       | 12              |
| Work/extracurricular activities                | 25                  | 8             | 28                 | 27                  | 7                       | 70              |
|  | 100                 | 35            | 44                 | 26                  | 3                       | 108             |
|  | 200                 | 13            | 10                 | 8                   | 1                       | 32              |
|  | 875                 | 26            | 16                 | 9                   | 3                       | 54              |
|  | 2750                | 7             | 3                  | 2                   | 0                       | 12              |
| Recommendations                                | 25                  | 6             | 10                 | 24                  | 29                      | 69              |
|  | 100                 | 20            | 34                 | 36                  | 18                      | 108             |
|  | 200                 | 10            | 8                  | 13                  | 2                       | 33              |
|  | 875                 | 24            | 20                 | 8                   | 3                       | 55              |
|  | 2750                | 6             | 3                  | 3                   | 0                       | 12              |
| Ability to pay                                 | 25                  | 47            | 10                 | 9                   | 4                       | 70              |
|  | 100                 | 77            | 17                 | 13                  | 0                       | 107             |
|  | 200                 | 25            | 3                  | 2                   | 2                       | 32              |
|  | 875                 | 51            | 1                  | 2                   | 1                       | 55              |
|  | 2750                | 11            | 0                  | 0                   | 0                       | 11              |
| State or county of residence                   | 25                  | 51            | 15                 | 2                   | 1                       | 69              |
|  | 100                 | 83            | 16                 | 9                   | 0                       | 108             |
|  | 200                 | 25            | 5                  | 2                   | 0                       | 32              |
|  | 875                 | 36            | 9                  | 6                   | 3                       | 54              |
|  | 2750                | 7             | 3                  | 1                   | 1                       | 12              |
| Race/ethnicity                                 | 25                  | 37            | 15                 | 13                  | 2                       | 67              |
|  | 100                 | 75            | 20                 | 10                  | 2                       | 107             |
|  | 200                 | 20            | 6                  | 7                   | 0                       | 33              |
|  | 875                 | 36            | 8                  | 7                   | 3                       | 54              |
|  | 2750                | 11            | 1                  | 0                   | 0                       | 12              |

**Table 52 continued**

|                                 |      |    |    |    |    |     |
|---------------------------------|------|----|----|----|----|-----|
| Students' interest in attending | 25   | 19 | 20 | 17 | 12 | 68  |
|                                 | 100  | 35 | 30 | 25 | 18 | 108 |
|                                 | 200  | 14 | 12 | 5  | 2  | 33  |
|                                 | 875  | 31 | 15 | 6  | 3  | 55  |
|                                 | 2750 | 8  | 2  | 2  | 0  | 12  |
| Alumni relations                | 25   | 22 | 25 | 18 | 3  | 68  |
|                                 | 100  | 50 | 35 | 22 | 1  | 108 |
|                                 | 200  | 14 | 12 | 6  | 1  | 33  |
|                                 | 875  | 28 | 20 | 4  | 2  | 54  |
|                                 | 2750 | 8  | 4  | 0  | 0  | 12  |
| Interview                       | 25   | 14 | 24 | 21 | 10 | 69  |
|                                 | 100  | 32 | 39 | 26 | 11 | 108 |
|                                 | 200  | 13 | 12 | 4  | 3  | 32  |
|                                 | 875  | 36 | 14 | 4  | 0  | 54  |
|                                 | 2750 | 10 | 0  | 1  | 0  | 11  |

Interestingly, although freshman class size and transfer class may not be related at many institutions, or even conversely related at some, size of the transfer class was associated with the same responses on the scaled questions as freshman class size, again with only articulation and race/ethnicity failing to show a statistically significant association. The P-values for the associations between the responses and the size of the transfer class are provided in Table 53, Appendix C.

The similarity in responses by enrollment size was also consistent when the responses on the top three factors used in transfer admission evaluations are examined by transfer class size. The frequency of responses to the top three factors is broken down by transfer class size in Tables 54, 55, and 56.

**Table 54: Frequency of Indicator of First Factor by Transfer Enrollment**

|                         | GPA at post-<br>secondary<br>institution | GPA in high<br>school | Average<br>grades in<br>transferable<br>courses | Articulation with<br>prior institution |  |
|-------------------------|--|-----------------------|---|--|--|
| 25                      | 37                                       | 0                     | 5   | 0                                      |  |
| 100                     | 74                                       | 1                     | 2   | 0                                      |  |
| 200                     | 23                                       | 1                     | 1   | 0                                      |  |
| 875                     | 37                                       | 0                     | 6   | 1                                      |  |
| 2750                    | 6  | 0                     | 2   | 0                                      |  |
|                         | Essay or writing<br>sample               | Ability to pay        | Students'<br>interest in<br>attending           | Total                                  |  |
| 25                      | 0  | 0                     | 0   | 42                                     |  |
| 100                     | 1  | 1                     | 0   | 79                                     |  |
| 200                     | 0  | 0                     | 1   | 26                                     |  |
| 875                     | 1  | 0                     | 0   | 45                                     |  |
| 2750                    | 0  | 0                     | 0   | 8                                      |  |
| Frequency Missing = 186 |  |                       |   |  |  |

**Table 55: Frequency of Indicator of Second Factor by Transfer Enrollment**

|                         | GPA at post-secondary institution           | GPA in high school                  | Average grades in transferable courses | Scores on standardized tests (SAT, ACT) |  |
|-------------------------|---|-------------------------------------|--|---|--|
| 25                      | 3   | 6                                   | 8                                      | 2                                       |  |
| 100                     | 3   | 15                                  | 35                                     | 3                                       |  |
| 200                     | 2   | 5                                   | 11                                     | 0                                       |  |
| 875                     | 7   | 7                                   | 23                                     | 2                                       |  |
| 2750                    | 2   | 2                                   | 4                                      | 0                                       |  |
|                         | Quality of prior post-secondary institution | Articulation with prior institution | Essay or writing sample                | Work/extra-curricular activities        |  |
| 25                      | 8   | 0                                   | 8                                      | 0                                       |  |
| 100                     | 5   | 1                                   | 6                                      | 1                                       |  |
| 200                     | 2   | 1                                   | 2                                      | 0                                       |  |
| 875                     | 2   | 3                                   | 0                                      | 0                                       |  |
| 2750                    | 0   | 0                                   | 0                                      | 0                                       |  |
|                         | Recom-mendations                            | Students' interest in attending     | Interview                              | Total                                   |  |
| 25                      | 5   | 0                                   | 0                                      | 40                                      |  |
| 100                     | 4   | 4                                   | 2                                      | 79                                      |  |
| 200                     | 1   | 0                                   | 0                                      | 24                                      |  |
| 875                     | 0   | 0                                   | 0                                      | 44                                      |  |
| 2750                    | 0   | 0                                   | 0                                      | 8                                       |  |
| Frequency Missing = 191 |   |                                     |  |   |  |

**Table 56: Frequency of Indicator of Third Factor by Transfer Enrollment**

|                         | GPA at post-secondary institution           | GPA in high school     | Average grades in transferable courses | Scores on standardized tests (SAT, ACT) |  |
|-------------------------|---|------------------------|--|---|--|
| 25                      | 0   | 5                      | 2                                      | 4                                       |  |
| 100                     | 0   | 9                      | 5                                      | 14                                      |  |
| 200                     | 0   | 3                      | 3                                      | 3                                       |  |
| 875                     | 1   | 4                      | 6                                      | 4                                       |  |
| 2750                    | 0   | 0                      | 2                                      | 1                                       |  |
|                         | Quality of prior post-secondary institution | Quality of high school | Articulation with prior institution    | Essay or writing sample                 |  |
| 25                      | 2   | 1                      | 1                                      | 7                                       |  |
| 100                     | 9   | 0                      | 6                                      | 11                                      |  |
| 200                     | 3   | 0                      | 2                                      | 2                                       |  |
| 875                     | 4   | 1                      | 6                                      | 4                                       |  |
| 2750                    | 0   | 0                      | 2                                      | 2                                       |  |
|                         | Work/extra-curricular activities            | Recommendations        | Ability to pay                         | State or county of residence            |  |
| 25                      | 0   | 10                     | 0                                      | 0                                       |  |
| 100                     | 0   | 11                     | 2                                      | 0                                       |  |
| 200                     | 1   | 3                      | 0                                      | 0                                       |  |
| 875                     | 2   | 2                      | 0                                      | 0                                       |  |
| 2750                    | 0   | 0                      | 0                                      | 1                                       |  |
|                         | Students' interest in attending             | Interview              | Total                                  |   |  |
| 25                      | 3   | 4                      | 39                                     |   |  |
| 100                     | 6   | 5                      | 78                                     |   |  |
| 200                     | 0   | 2                      | 22                                     |   |  |
| 875                     | 3   | 0                      | 37                                     |   |  |
| 2750                    | 0   | 0                      | 8                                      |   |  |
| Frequency Missing = 202 |   |                        |  |   |  |

While the frequency of responses on the top three factors appeared to have some similarity to the response for freshman class size, those for transfer class size did not show a statistically significant relationship with the top three identified factors, although the second and third factors were very close to a significant association. The P-

values for the relationship between all three factors, broken down by transfer class size, are provided in Table 57, Appendix C.

The frequency of responses on the questions regarding additional factors used to evaluate transfer applicants broken down by transfer class size are provided in Table 58.



**Table 58: Frequency of Responses on Additional Factors by Transfer Enrollment**

| Variable  | Transfer enrollment | Plus | Neutral | Minus | Total Responses |
|---|---------------------|------|---------|-------|-----------------|
| Received a GED                                  | 25                  | 0    | 64      | 6     | 70              |
|   | 100                 | 4    | 96      | 7     | 107             |
|   | 200                 | 0    | 30      | 3     | 33              |
|   | 875                 | 4    | 49      | 2     | 55              |
|   | 2750                | 0    | 12      | 0     | 12              |
| Received an associate degree                    | 25                  | 19   | 50      | 0     | 69              |
|   | 100                 | 47   | 61      | 0     | 108             |
|   | 200                 | 15   | 17      | 1     | 33              |
|   | 875                 | 27   | 27      | 0     | 54              |
|   | 2750                | 6    | 6       | 0     | 12              |
| Attended a community college                    | 25                  | 10   | 59      | 0     | 69              |
|   | 100                 | 16   | 91      | 1     | 108             |
|   | 200                 | 7    | 24      | 1     | 32              |
|   | 875                 | 16   | 38      | 0     | 54              |
|   | 2750                | 1    | 11      | 0     | 12              |
| Attended a highly competitive four-year College | 25                  | 43   | 25      | 1     | 69              |
|   | 100                 | 62   | 46      | 0     | 108             |
|   | 200                 | 18   | 15      | 0     | 33              |
|   | 875                 | 21   | 31      | 2     | 54              |
|   | 2750                | 2    | 10      | 0     | 12              |
| More Than 60 hours transferable credit          | 25                  | 14   | 44      | 12    | 70              |
|   | 100                 | 32   | 70      | 6     | 108             |
|   | 200                 | 8    | 25      | 0     | 33              |
|   | 875                 | 19   | 35      | 0     | 54              |
|   | 2750                | 5    | 7       | 0     | 12              |
| Visited the campus                              | 25                  | 30   | 39      | 0     | 69              |
|   | 100                 | 56   | 52      | 0     | 108             |
|   | 200                 | 11   | 21      | 1     | 33              |
|   | 875                 | 10   | 44      | 1     | 55              |
|   | 2750                | 1    | 11      | 0     | 12              |
| Frequently contacted the admission office       | 25                  | 28   | 41      | 0     | 69              |
|   | 100                 | 39   | 69      | 0     | 108             |
|   | 200                 | 6    | 25      | 1     | 32              |
|   | 875                 | 6    | 48      | 1     | 55              |
|   | 2750                | 1    | 11      | 0     | 12              |
| Over 25 years old                               | 25                  | 1    | 61      | 6     | 68              |
|   | 100                 | 2    | 106     | 0     | 108             |
|   | 200                 | 2    | 30      | 1     | 33              |
|   | 875                 | 7    | 47      | 0     | 54              |
|   | 2750                | 2    | 10      | 0     | 12              |
| Particular academic or professional focus       | 25                  | 21   | 48      | 0     | 69              |
|   | 100                 | 49   | 59      | 0     | 108             |
|   | 200                 | 11   | 22      | 0     | 33              |
|   | 875                 | 22   | 31      | 1     | 54              |
|   | 2750                | 2    | 10      | 0     | 12              |
| Plans to enroll full-time                       | 25                  | 35   | 35      | 0     | 70              |
|   | 100                 | 46   | 61      | 0     | 107             |
|   | 200                 | 9    | 23      | 0     | 32              |
|   | 875                 | 13   | 41      | 0     | 54              |
|   | 2750                | 1    | 11      | 0     | 12              |
| Plans to enroll part-time                       | 25                  | 4    | 43      | 18    | 65              |
|   | 100                 | 2    | 96      | 10    | 108             |
|   | 200                 | 0    | 29      | 2     | 31              |
|   | 875                 | 3    | 50      | 1     | 54              |
|   | 2750                | 0    | 11      | 1     | 12              |

The smaller transfer class size ranges, 25, 100 and 200, all had the most plus responses for attended a highly competitive four-year college, while institutions in the two larger ranges gave having an associates degree the most plus responses. As was the case for freshman class size, transfer class size showed an association with prior attendance at a highly competitive four-year institution, visiting the campus, frequent contact with the admission office, and intending to enroll full-time. In addition, having over 60 transferable hours and being over age 25 also showed statistically significant associations with transfer class size, which was not true of freshman class size. The P-values for the associations between the five class size ranges and the responses on the additional factors are provided in Table 59, Appendix C.

### Results of Regression Analysis

By taking the statistically significant associations identified in the prior tables and running them against one another, SAS is able to run regression analysis to determine which factors are most likely to be in use by institutions by the explored independent variables, as seen in institutional control, freshman and transfer competitiveness, as well as freshman and transfer class size. Each dependent variable (response) has been analyzed along these lines, providing the strength of the relationship in a P-value, the likelihood of the relationship in an odds ratio estimate, and the confidence interval for the relationship.

Using that methodology, a number of the dependent variables did not appear to be predictable using institutional control or the various measures of size and selectivity.

These included average grades in transferable courses, transfer articulation, and residency. An overview of the regression analysis is provided in Table 60, Appendix C.

#### *Grade Point Average at Post-Secondary Institution*

Whether GPA at post-secondary institution is used as a factor to evaluate transfer applications seems to change with transfer selectivity, the percentage of transfer applicants offered admission. The odds of the post-secondary grade point average being a criterion decrease by 46% for every 10 unit increase in transfer admission rate. The transfer admission rate was provided as the percent of applicants an institution accepts. A 10 unit increase represents a 10% increase in the rate of transfer applicants offered admission. Since increasing admission rate results in a less competitive class, the use of post-secondary grade point average as a factor decreases as the transfer admission competitiveness decreases. An institution that accepts a larger than average proportion of transfer applicants, for instance, that institution is projected to rely less often on an applicant's grade point average from his or her prior institution. An institution accepting a low proportion of transfer applicants, however, would be expected to use this factor.

Transfer admission rate was a significant predictor with a P-value of 0.0281, an odds ratio estimate of 0.941, and a Wald confidence interval between 0.891 and 0.993

#### *High School Grade Point Average*

The use of high school grade point average as a factor in the evaluation of transfer applicants appears to correspond best with a combination of a measure of competitiveness, the percent of transfer applicants admitted, and one measure of

institution size, the size of the transfer class. The chance that an institution uses high school grade point average as a transfer admission factor decreases by approximately 17% for every 10 units increase in transfer admission rate, meaning the percentage of transfer applicants admitted, after adjusting for transfer population size. The admission rates were measures as the percent of applicants accepted, so a 10 unit increase represents 10% more applicants accepted. Since an increasing transfer admission rate indicates that a greater percentage of applicants are accepted, a higher rate is considered a less competitive institution. At the same time, the chance of high school grade point average as a factor decreases by only 4% for every 50 units increase in the size of the transfer class, after adjusting for transfer admission rate. This indicates that the larger the institution's enrollment, at least as measured by the size of new transfer enrollment, the smaller the likelihood that high school grade point average will be used as an admission evaluation factor for transfer applicants.

Transfer admission rate was a significant predictor with P-value of 0.0021 and an odds ratio estimate of 0.982, and a Wald confidence interval between 0.970 - 0.994. Size of the transfer class was a significant predictor with a P-value of 0.0048, an odds ratio estimate of 0.999, and a Wald confidence interval between 0.999 and 1.000.

#### *Scores on Standardized Tests*

Like the use of high school grade point average, reported use of scores on standardized tests as a factor in the evaluation of transfer applicants also corresponds with changes in the admission rate of transfer students and the size of the transfer class.

After adjusting for transfer population size, reported use of standardized tests decreased by 21% with every 10 units increase in the transfer admission rate. Viewed in the other direction, after controlling for transfer admission rate, the use of standardized tests as a transfer admission factor decreases 4% with every 50 units increase in the transfer class size.

Transfer admission rate was a significant predictor with a P-value of 0.0003, an adjusted odds ratio estimate of 0.977, and a Wald confidence interval between 0.965 and 0.990. Transfer size was a significant predictor with a P-value of 0.0087, an adjusted odds ratio estimate of 0.999, and a Wald confidence interval between 0.998 and 1.0.

#### *Quality of Prior Post-Secondary Institution*

Whether the quality of the prior institution an applicant attended is or is not a factor used in evaluation of transfer applicants seems to change with the size of the transfer class. The chances of quality of prior institution being a criterion decrease by 5% for every 50 units increase in transfer population size. Transfer class size was a significant predictor with a P-value of 0.0025, an odds ratio estimate of 0.999, and a Wald confidence interval between 0.998 and 1.0.

#### *Quality of High School*

Whether or not quality of high school is a factor in the evaluation of transfer applicants seems to depend on the type of institutional control (public vs. private). The chance that quality of an applicant's high school is used as a criterion decrease by 78% if an institution was public rather than private. Institutional control (public vs. private) is a

significant predictor with a P-value of 0.0022, an odds ratio estimate of 0.221, and a Wald confidence interval between 0.084 and 0.582.

#### *Essay or Writing Sample*

The use of essays or writing samples in evaluating transfer applicants seems to depend on the type of institutional control and freshmen admission rate (adjusting for each other). The odds of an institution using essays or writing samples decrease by 81% if an institution was public rather than private, after adjusting for freshmen admission rate. The likely use of essays or writing samples decreases by 21% for every 10 units increase in freshman admission rate, after adjusting for type of institutional control. Institutional control is a significant predictor with a P-value less than 0.0001, an adjusted odds ratio estimate (public vs. private) of 0.193, and a Wald confidence interval between 0.095 and 0.393. Freshmen admission rate is a significant predictor with a P-value of 0.0023, an adjusted odds ratio estimate of 0.977, and a Wald confidence interval between 0.962 and 0.992.

#### *Work and Extracurricular Activities*

Whether or not work or extracurricular activities are used as transfer admission criteria appears to change with an institution's freshman admission rate and the size of that institution's transfer class, when each is adjusted for the other. Indications that work or extracurricular activities are a criterion decreases by 25% for every 10 units increase in freshman admission rate (becoming less competitive) after adjusting for transfer population size. The odds of work and extracurricular activities being used as an evaluation factor decrease by 4.5% for every 50 units increase in the size of the transfer

class, after adjusting for freshmen admission rate. Freshmen admission rate is a significant predictor with a P-value of 0.0002, an adjusted odds ratio estimate of 0.971, and a Wald confidence interval between 0.956 and 0.986. Size of the transfer class is a significant predictor with a P-value of 0.0025, an adjusted odds ratio estimate of 0.999, and a Wald confidence interval between 0.998 and 1.0.

### *Recommendations*

The use of recommendations as a transfer admission criterion depends on the type of institutional control and an institution's freshmen admission rate, when each is adjusted for the other. The odds of recommendations being used decreases by 90% if an institution is public, after adjusting for freshman admission rate. The chances that recommendations will be used decreases by 19% for every 10 units increase in freshmen admission rate (decrease in selectivity), after adjusting for institutional control.

Institutional control is a significant predictor with a P-value below 0.0001, an adjusted odds ratio estimate of 0.102, and a Wald confidence interval between 0.045 and 0.228. Freshman admission rate is a significant predictor with a P-value of 0.009, an adjusted odds ratio estimate of 0.979, and a Wald confidence interval between 0.964 and 0.995.

### *Ability to Pay*

Whether ability to pay is a transfer admission criterion or not seems to change with the size of the freshman class. The odds of ability to pay being a criterion decrease by 14% for every 50 units increase in freshman class size. This indicates that a student's ability to pay is more likely to be used at smaller institutions, as measured by the size of

the freshman class. Freshmen size is a significant predictor with a P-value of 0.0039, an odds ratio estimate of 0.997, and a Wald confidence interval between 0.995 and 0.999.

### *Race/Ethnicity*

Whether race/ethnicity is a transfer admissions criterion or not seems to depend on institutional control and freshmen admission rate, adjusting for each other. The odds of race/ethnicity being a criterion decreases by 64% if an institution is publicly controlled, after adjusting for freshmen admission rate. The chance of race/ethnicity being a criterion decreases by 31% for every 10 units increase in freshmen admission rate, after adjusting for institutional control. Institutional control is a significant predictor with a P-value of 0.0444, an adjusted odds ratio estimate of 0.358, and a Wald confidence interval between 0.131 and 0.975. Freshmen admission rate is a significant predictor with a P-value under 0.0001, an adjusted odds ratio estimate of 0.963, and a Wald confidence interval between 0.945 and 0.981.

### *Interest in Attending*

Whether a student's interest in attending an institution is a factor in the transfer admission process varies with the size of the transfer class. The odds of interest in attending being a criterion decrease by 6% for every 50 units increase in transfer class size. Transfer class size was a significant predictor with P-value of 0.0083, an odds ratio estimate of 0.999, and a Wald confidence interval between 0.998 and 1.000.



### *-Alumni Relations*

Whether having alumni relations is a transfer admission criterion seems to change with transfer class size. The odds of alumni relations being a criterion decrease by 9% for every 50 units increase in transfer class size. Transfer class size was a significant predictor with P-value of 0.0131, an odds ratio estimate of 0.998, and a Wald confidence interval between 0.997 and 1.000.

### *Interview*

Whether interviews are factors in transfer applicant evaluation or not seems to change very marginally with institutional enrollment. The odds of interviews being a criterion seemed to decrease by only 1% for every 50 unit increase in the overall size of the institution. Enrollment size was a significant predictor of the use of interview with a P-value of 0.0013, but, although significant, there was not a strong association with any of the independent variables with the use of interviews.

### *Received a GED*

Whether receiving a GED (General Equivalency Diploma for secondary school completion) is a factor used to evaluate transfer applicants seems to change with the freshman admission rate. The odds of an institution using the GED as an admission factor decrease by 34% for every 10 unit increase in freshman admission rate (decreasing selectivity). Freshman admission rate was a significant predictor with P-value of 0.03 and an odds ratio estimate of 0.96, with a Wald confidence interval between 0.925 and 0.996

### *Received an Associate Degree*

Whether receiving an associate degree is a criterion for transfer admissions depends on institutional control and enrollment, adjusting for each other. The odds of associate degree as a criterion increase by 260% with public institutional control, after adjusting for enrollment. The odds of an associate degree being a criterion decrease by less than 1% every 50 units increase in institutional enrollment, after adjusting for control. Institutional control is a significant predictor with a P-value of 0.0038, an adjusted odds ratio estimate of 3.62, and a Wald confidence interval between 1.516 and 8.64. Institutional enrollment was only marginally significant with a P-value of 0.04.

### *Attended a Community College*

Whether attending a community college is a criterion for transfer admissions or not seems to depend on institutional control. Odds of community college attendance being a criterion increases by 117% at public institutions. Institution control is a significant predictor with a P-value of 0.0266, an odds ratio estimate of 2.167, and a Wald confidence interval between 1.094 and 4.292.

### *Attended a Highly Competitive Four-Year College*

Whether attending a highly competitive four-year college is a transfer admission factor seems to change with the size of the transfer class. Odds of highly competitive four-year college attendance being a criterion decrease by 6% for every 50 units increase in the size of the incoming transfer class. Transfer class size was a significant predictor

with P-value of 0.0005, an odds ratio estimate of 0.999, and a Wald confidence interval between 0.998 and 1.000.

#### *More than 60 Hours of Transferable Credit*

Whether having more than 60 hours of transferable credits is a criterion for transfer admissions or not seems to depend on institutional control, institutional enrollment, and the freshmen class size, adjusting for the rest. Odds of using 60 plus hours as a criterion increase by 223% at public institutions, after adjusting for enrollment and freshman class size. Odds of having more than 60 hours of transferable credits being a criterion increase less than 1% with every 50 units increase in enrollment, after adjusting for control and freshman class size. Odds of this factor being considered decrease by 6% with every 50 units increase in the freshman class, after adjusting for institutional control and enrollment. Institutional control is a significant predictor with a P-value of 0.0109, an adjusted odds ratio estimate of 3.23, and a Wald confidence interval between 1.309 and 7.968. Institutional enrollment was only marginally significant with P-value = 0.0499. Freshman class size was significant with a P-value of 0.0175, an adjusted odds ratio estimate of 0.999, and a Wald confidence interval between 0.998 and 1.000.

#### *Visited the Campus*

Whether visiting campus is a transfer applicant evaluation factor seems to change with freshman class size. The odds of visiting the campus being a criterion decrease by 4.5% for every 50 units increase in the freshman class. Freshman class size is a

significant predictor with a P-value below 0.0001, an odds ratio estimate of 0.999, and a Wald confidence interval between 0.999 and 1.000.

#### *Frequently Contacted Admissions Office*

Like visiting the campus, whether frequently contacting the admission office is a factor changes with freshman class size. Odds of frequent contacts being a factor decrease by 7% for every 50 units increase in the freshman class. Freshman class size was a significant predictor with a P-value of 0.0002, an odds ratio estimate of 0.999, and a Wald confidence interval between 0.999 and 1.000.

#### *Over 25 Years Old*

Whether being over 25 years of age is weighted in the evaluation of transfer applications seems to change with institutional enrollment. Odds of using being over 25 as a criterion increase by less than 1% for every 50 units increase in institutional enrollment. Freshman class size was a significant predictor with P-value of 0.0024.

#### *Academic or Professional Focus*

Whether the applicant's academic or professional focus is an evaluation factor depends on institutional control and transfer class size (adjusted for each other). The adjusted odds of academic or professional focus being a criterion increase by 150% if at public institutions, after adjusting for transfer class size. Adjusted odds of it being a factor decrease by 5% for every 50 units increase in transfer class size, after adjusting for institutional control. Institutional control is marginally significant with a P-value of

0.0488, an adjusted odds ratio estimate of 2.51, and a Wald confidence interval between 1.005 and 6.271. Transfer class size was a significant predictor with a P-value of 0.0197, an adjusted odds ratio estimate of 0.999, and a Wald confidence interval between 0.998 and 1.000.

#### *Plans to Enroll Full-Time*

Whether an applicant plans to enroll full-time is a factor for transfer admissions seems to change with the size of the transfer class. Odds of planning to enroll full-time being a criterion decrease by 6% for every 50 units increase in transfer class size. Transfer class size was a significant predictor with a P-value of 0.0049, an odds ratio estimate of 0.999, and a Wald confidence interval between 0.998 and 1.000.

#### *Plans to Enroll Part-Time*

Planning to enroll part-time is weighted in the evaluation of transfer applicants depending on institutional control and the freshmen class size (adjusting for each other). Odds of planning to enroll part-time being a criterion increases by 2856% if an institution is public rather than private, after adjusting for freshman class size. Odds of planning to enroll part-time being a criterion decreases by 9% with every 50 units increase in freshman class size, after adjusting for institution control. Institutional control is a significant predictor with a P-value of 0.0002, an adjusted odds ratio estimate of 29.56, and a Wald confidence interval between 4.895 and 178.495. Freshmen class size was significant with a P-value of 0.0396, an adjusted odds ratio estimate of 0.998, and a Wald confidence interval between 0.996 and 1.000.

## Open Response Section

The survey included an opportunity for respondents to answer an open question on any additional factors used in the evaluation of transfer applicants for admission, and 47 of these responses were submitted. The largest category, with 18 related responses, can be grouped as specific courses and/or grades in specific courses that must be successfully completed prior to a student being considered for transfer admission, although which specific courses are required was not provided. This also includes two institutions noting that a student must have completed a minimum number of credits to be considered for transfer admission. Six institutions noted specific requirements for particular majors, four requiring portfolio review, one looking at compatibility with the major and the other having specific requirements for entry into a nursing and/or paramedic program. Five institutions listed the concept of “fit” with their institution, four noting the importance of a specific religious belief or background. Two institutions noted that they admit no transfer students, while another excludes any and all part-time students, and three institutions noted that students on academic dismissal or not in good academic standing at their prior institution are not considered. The importance of references was noted three times, but no explanation was provided as to how, if at all, those would differ from recommendations. Amount of credit completed was noted twice, although it was unclear whether more or less would be more attractive. Also noted twice was the applicant’s interest in on-campus housing, although again the issue was not designated as a plus or a minus. Issues listed only once were: taking time off from studies after weak performance (as a plus factor); placement tests (the Compass); and relations with prior institutions (noting that the school gives priority to their in-state community

college applicants). One institution noted that it is open enrollment, and another listed a requirement for a “transfer clearance form,” but no further explanation of what that is was provided.

## CHAPTER V

### SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

#### Introduction

The movement of students between post-secondary institutions, commonly referred to as transferring, is gaining considerable attention. The issue now impacts the majority of students in higher education, according to findings from the U.S. Department of Education, “Postsecondary attendance patterns among traditional-aged students have become far more complex, with nearly 60 percent of undergraduates attending more than one institution” (Adelman, 2006, pp. xv-xvii). The issue was cited as one of the areas of concern in the report from the commission appointed by U.S. Secretary of Education Margaret Spellings, citing a need to establish “clearer pathways among educational levels and institutions” (Spellings, et al, 2006, p. 17).

Access to higher education has long been a topic of research, and there is a large volume of work in the sub-topic of access relating to student admission. Surprisingly, despite the number of transfer students and the increasing attention to access as it relates to transfer, nearly all of the literature in the field focuses exclusively on the admission of students directly from secondary to post-secondary institutions, or freshman admission. This is complicated by the lack of any national data on transfer admission practices that would provide the ground work to guide such research.

The National Association for College Admission Counseling (NACAC) *State of College Admission* has provided national data on freshman admission that has served such a purpose for over 10 years. This study sought to create the same tool for the study of transfer admission. At the invitation of NACAC, the researcher was permitted to craft



a new transfer admission section of that organization's national survey of admission practices. This study explored significant institutional characteristics as independent variables that could impact which factors institutions use in the evaluation of transfer applicants, which were the dependent variables. The results can provide insight and guidance to institutional officers, state and federal policy makers, and prospective students.

### Methodology

This study was inserted as a new, transfer admission section in the survey of admissions practices that NACAC conducts annually. NACAC surveys all four-year, not-for-profit, degree-granting, Title-IV participating institutions in the United States and outlying areas listed by the U.S. Department of Education. The survey was sent in both paper and electronic formats. Responses were analyzed for frequency of responses and associations between dependent and independent variables. Based on those results, regression analysis was conducted on the dependent variables to determine which of the studied institutional characteristics had a bearing on whether, and to what degree, the surveyed transfer admission factors are in use in the evaluation of transfer applicants.

### Overview of Findings

As expected, no factor can match the importance of the applicant's grade point average from their prior post-secondary institution in the admission process. Respondents listed it 312 times as of moderate or considerable importance, while the next most important factor, the similar but still distinct average of grades in transferable courses,

was listed in those categories only 266 times. The next closest factor, grade point average in high school, had only 176 listings. In addition, grade point average was the overwhelming choice for the most important factor when institutions listed their top three, with 201 institutions selecting it as the first, 19 as the second, and 1 as the third most important factor. The closest in the first choices, the average of grades in transferable courses, was listed as first only 19 times, with 87 as second and 19 as third factor. The aforementioned factors had no relationship to institutional control, admission selectivity, or institutional size, as combining them there is no doubt that they are the dominant factors across all the varied responding institutions. In other words, there is no statistical relationship to be found since the factors, applicant's grade point average from their post-secondary institution and grades in transferable courses, are the most important across all of these institutional characteristics. While other factors may be considered, there seems to be little doubt that a student's post-secondary grades are the factor that will most likely determine transfer admissibility at the vast majority of institutions in the United States.

Beyond the use of post-secondary grades, there is much greater differentiation in the use of other factors. The institutional control of an institution, whether it is private or public, is one of the institutional differences in which the results indicated a variance in what factors are considered in admissions decisions, along with admissions selectivity and enrollment size. The more competitive/selective and smaller the institution, for instance, the more likely it becomes that the institution is giving weight to other factors. Private institutions tend to consider the quality of an applicant's high school as well as the applicant's essay and recommendations. Public institutions are less likely to use all

three of these factors, indicating that having an associates degree, attending a community college, having completed more than 60 hours of transferable credit, and having a particular academic focus are considered plus factors in their admission decisions.

Institutions that are more selective in their transfer admissions processes are more likely to consider high school grade point average and standardized test scores. Colleges and universities that have more competitive freshman admission processes are more likely to weigh essays, work and extracurricular experiences, and recommendations.

Institutions with small fall transfer classes are likely to consider high school grade point average, standardized test scores, quality of the prior post-secondary institution, the student's interest in attending, whether the student has relatives that attended the institution, and whether a student has attended a highly competitive four-year institution. The same institutions are more likely to add plus factors for particular academic focus and for planning to enroll full-time. Institutions with small freshman classes are more likely to weigh work and extracurricular experiences, a student's ability to pay, visiting campus, frequent contacts to the admissions office, and having over 60 hours of transferable credit.

The results seem particularly interesting for a handful of these factors, even as most take a back seat to the importance of post-secondary performance. As mentioned above, high school grades are more likely to be considered at institutions that are smaller (transfer class size) and more selective (transfer admission rate). This seems to be a fairly prevalent practice among such institutions, as high school grade point average was rated of moderate to considerable importance 176 times, with 2 listings as the most important factor, 44 as the second most important, and 22 as third. As weighting this factor is more

likely in smaller, more selective institutions, the researcher's initial assumption that high school grades would only be a significant factor when there was a limited post-secondary record seems less likely.

It appears more likely that a number of institutions place an intrinsic value on high school performance in the transfer application evaluation process. This is bolstered as the related factor, quality of high school, received 78 listings in the moderate to considerable importance category, and 2 listings as third most important factor. It should be noted, however, that quality of high school was also among the most often listed as being of little or no importance, with 239 institutions placing the factor in one of those two categories. The trend line and fairly high number of responses on the high school grade point average, however, seems to indicate that a number of smaller, more selective institutions believe that performance in high school is a good indicator of college performance even after the student has attended another post-secondary institution.

In addition, although an applicant's post-secondary record is the dominant factor across institutions, baccalaureate-granting institutions appear to differ in their preference for the applicant's current site of attendance. Attending a highly competitive four-year institution was of moderate to considerable importance for 159 institutions, and the quality of the post-secondary institution was listed 151 times, with 19 as second and 21 as third most important. These potentially related factors, attending a higher competitive four-year institution and the quality of post-secondary institution are both more likely to be used among institutions with small transfer class sizes. Two other seemingly related factors were listed less often as plus factors: having an associate degree was listed 126 times and attending a community college 57 times. Both community college associates

degree attainment and community college attendance were found to be much more likely to be used as transfer applicant evaluation factors at public institutions. More intriguingly, articulations with prior institutions, which are so strongly encouraged by state and national policy makers, were listed only 110 times in moderate to considerable importance with 1 listing as most important, 8 as second and 18 as third most, while 205 institutions responded that articulations were of little or no importance as an admission factor, placing it among the most often listed for being of little or no importance. Considering the current policy emphasis on the value of articulations, it seems surprising to see this factor used less frequently than many others. It is also interesting that these listings did not seem more prevalent in any particular type of institution.

Less surprising was how similar the number of institutions are that use recommendations and essays. Respondents listed those factors 153 and 149 times respectively as of moderate to considerable importance in the application review process. These tended to be used by the similar institutions, those that were private, more competitive, and smaller, suggesting that such institutions are more likely to look beyond academic records in evaluating their transfer applicants. Nearly the same number of institutions, 165 and 168 respectively, listed these factors as being of little or no importance, and based on the trend indicators, these were likely to be the larger, less competitive public institutions.

Although such institutions are more likely to weigh additional factors; the use of standardized test scores, increasing for those that were smaller and more selective, may be the factor that is most difficult to understand. Since standardized tests like the SAT and ACT are generally meant to predict first year performance, it seems inconsistent with

intended use that scores on standardized tests was listed the next most often as a factor for evaluating transfer applicants. 132 institutions placed standardized tests in the moderate to considerable importance categories, 7 as second most important and 31 as third most important. In addition, 184 institutions indicated that standardized test scores were of little or no importance in evaluating transfer applicants. As with essays and recommendations, there is a strong trend line indicating that the respondents listing test scores as little or no importance were likely to be from larger and less selective institutions.

The greatest similarity between survey results for which factors are used in the evaluation of freshman applicants and the results for transfer applicants were in the factors that are least often considered. The 2006 State of College Admission Report (Hawkins & Clinedinst, 2006) found that race/ethnicity, state or county of residence, alumni relations (student's having relatives that previously attended an institution), and ability to pay were among the least-used factors in the evaluation of freshman applicants. These same four factors were the most often listed as of little or no importance in the transfer applicant evaluation process, listed in these categories between 288 times (residence) to 253 times (alumni relations). While residency did not appear to have a relationship to any of the independent variables, weighting of ability to pay, interest in attending, and alumni relations seem to be slightly more likely at smaller institutions. Interviews, however, were listed as more significant for freshman consideration but are rarely used in the transfer process as these were nearly as often listed (223 times) as being of little or no importance as these other four factors.

The researcher theorized that, since many transfer students are working adults, work and extra curricular activities would be an important admission factor. Only 98 institutions, however, listed it as being of moderate to considerable importance, while more than twice as many, 219, said it had little or none.

Very few factors were noted as ever being a negative (minus) factor for transfer admission consideration, but a handful (33) of institutions did indicate that students planning to enroll part-time counted against their consideration. Having a GED, presumably instead of a high school diploma, was listed as a negative 18 times, and just listed that having more than 60 transferable credits was used a negative factor. A very small number (7) counted age against students, finding it a minus factor if applicants were over 25.

### Findings Contrary to Hypothesis

Based on experience in transfer admissions at three institutions, the researcher hypothesized that post-secondary grade point average would not only be the dominant factor, but also that other factors would be almost exclusively classified as being of little or no importance. While grades from post-secondary institutions were overwhelmingly the most important and most used factor in evaluating transfer applicants; there was a wide variety of other factors, and at private, more selective, and smaller institutions, several of these factors had considerable weight in the transfer applicant evaluation process.

A secondary hypothesis was that institutions with more transfer students would use more detailed criteria, assuming that their experience with transfer students would

lead to more comprehensive admission review. This turned out to be the opposite of the study's findings. Respondents with larger transfer class sizes were more likely to use fewer criteria, while those with smaller transfer class sizes were more likely to use a broader array of factors.

The literature on freshman admission factors indicated that more selective institutions would use more criteria, and the researcher hypothesized that this would be the case for transfer admissions as well. The freshman research, however, did not suggest that the control of an institution or the size of the incoming class would have a bearing on the use of a greater range of factors. This study, however, found that smaller class size is a good indicator that an institution is likely to weigh a wider range of factors, and that private institutions are far more likely to use more factors in determining the admissibility of transfer applicants.

Literature on transfer admissions, particularly on articulation (Healy, 1991) suggested that high school counselors, admissions officers at four-year institutions, and transfer counselors at two-year institutions all felt that articulation agreements between baccalaureate-granting and two-year institutions were critical to the admission process. As a result, it was surprising to the researcher to see how few institutional respondents regarded these agreements as important to the evaluation of transfer applicants.

The researcher was familiar with models where transfer applicants receive lower levels of financial aid, as their admission generally occurs after institutional aid has been awarded to continuing students and new freshmen, usually leaving a smaller pool of funds. Since many admissions officers consider need in the freshman process, the researcher believed that would be the case of the potentially more price-sensitive transfer



students as well. The responses, however, indicated that few institutions consider financial need as an important factor in the evaluation of transfer applicants. It is worth considering whether consideration of student financial need will increase when, or if, the number of transfer applicants increases, federal and state institutional and aid funding policies evolve, or as other institutional funding issues arise.

Finally, the researcher hypothesized that factors used to evaluate transfer applicants would be distinct from those used for freshman applicant evaluation in cases where the two populations of applicants have clear differences. Since transfer students often have significant work experience, for example, the researcher assumed that work experience would be given greater weight; and since high school grade point average, quality of high school, and especially standardized test scores, are considered the best predictors of first year college performance, but are considered to have lower correlations with work beyond that first year, these would be given less weight for students applying for transfer. Work and extracurricular experience, however, turned out to be a relatively rare factor, as it is for evaluation of freshman applicants. High school grade point average, quality of high school, and standardized test scores, on the other hand, are used by a surprising number of institutions to evaluate transfer students, particularly at private, smaller, and more competitive institutions.

### Limitations

The survey response rate was the lowest in several years since NACAC has been conducting their national survey. In addition, respondents tended to be members in the

association. As a result, there may be bias in responses that was introduced by either the small sample size or by a response pool made up predominantly of NACAC members.

### Implications for Practice

The results of this research offer different applications for administrators, policy-makers, and for students.

At baccalaureate-granting institutions, few issues have as large an impact as student enrollment. With decreases in state funding, public institutions are increasingly dependent on student tuitions, looking more and more like private institutions in their need for enrollment to balance budgets. Universities spend increasing amounts of their budgets on marketing and recruitment to meet this need, attracting increasingly larger applicant pools. The entire field of enrollment management is dedicated to maximizing student enrollment, and particularly the persistence of students, as it is far less expensive to retain a student than to recruit new enrollment. Enrollment managers depend heavily on the vast data regarding freshmen admission, determining standards to at least some extent by the impact those standards will have on freshman retention and persistence. No such data, unfortunately, are available for transfer students. While the population of transfers increases, baccalaureate-granting institutions will naturally come to depend more and more on transfer enrollment to meet their revenue goals. The results of this study provide the first step toward developing model enrollment management practices for transfer students. The list of factors in use should, in subsequent studies, be analyzed for their efficacy.

Even before future research is completed, the findings raise some areas of concern for enrollment managers at baccalaureate-granting institutions. It is worth noting, for instance, that private, smaller, and more competitive institutions are the ones more likely to use a greater range of factors in evaluating transfer applicants. Larger institutions, at least those with larger transfer populations, have the most experience with transfer students. This disparity raises critical concerns for admissions officers. It may be that many institutions are using a range of factors that are not useful in evaluating the future performance of transfer students. If that performance is important to the receiving institution, a reasonable assumption based on enrollment management theory; then these institutions should be concerned about the accuracy of their decisions, and the amount of time and money being spent on transfer application evaluation. It may be that many of these institutions, presumably with smaller admissions staff members who may evaluate freshman and transfer applicants, are simply replicating the systems in use to evaluate freshmen, rather than creating a system more appropriate to the transfer population.

On the other hand, public, larger, less competitive institutions may have over-simplified the process. They may be at equal risk of weak decisions by failing to consider the range of factors that could offer greater insight into the future performance of their students.

The very limited past literature indicates, unfortunately, that both unfamiliarity with transfer applicants and over-simplification of the process are likely impacting baccalaureate-granting institutions. Many are using a range of factors unlikely to yield useful data about transfer applicant performance, while others use over-simplified models. Few are considering work experience or extra-curricular activity, despite the

likelihood that those factors could be much more helpful than high school records or standardized test scores. The results of this study reconfirm that, in regards to the evaluation of transfer applicants, the field of admissions is relatively unsophisticated. As the numbers of transfer students is projected to grow, and already has such a massive volume, it is hard to imagine that transfer applicant evaluation policy will not be a crucial issue for most higher education administrators.

Community college administrators are likely to find the results of equal or even greater interest. The suggestion that only a few schools regard having an associate degree or attending community college as a plus factor is troubling, and even more so is the emphasis at private, smaller, and competitive institutions on the quality of the applicant's prior institutions. The results strongly imply that community college students seeking to transfer to such institutions may be a significant disadvantage. Worse, articulation agreements between baccalaureate-granting and two-year institutions appear to do little to alleviate this disadvantage. Such agreements are actively, and at times aggressively, sought by community colleges and community college systems. The results, however, make it clear that such agreements are not currently having a significant impact on applicants' admissibility. The reason for this finding was not identified by this study. It may be that schools simply disregard these agreements, or that few institutions have them in place. More likely, however, is that these agreements codify admission policies already in place. A baccalaureate-granting institution might, for instance, guarantee admission to all associate degree recipients from a particular community college IF the student has a very high grade point average, has taken exactly the courses required, and has no blemishes on his or her record. An agreement might spell that out,

but, in reality, that applicant would likely be admitted with or without an agreement. The results of the study highlight a need to improve articulation agreements, change the way they are used, or perhaps even entirely abandon the admissions related portion of those agreements.

State and Federal policy-makers may be equally interested in these results, as a great deal of pressure has been brought to bear on, at least, public institutions to increase articulation agreements. If such agreements are not opening additional admission spaces, then their purpose, at a time of increasing transfer applicant volume, may be moot. Policy-makers will also have a keen interest in follow up research on which factors are the most predictive of success after a student transfers. Policy leaders at the state and federal level have looked at the expansion of community colleges, with their much lower cost per student, as a cost effective way to expand educational opportunity. This study raises serious concerns that the pipeline currently in place to serve those students is not grounded on research, but more likely on what is easy to process, or to replicate from the processes in place to evaluate freshman applicants. Those policy makers have a tremendous interest in encouraging research that allows receiving institutions to implement models most likely to create access for students most likely to succeed in baccalaureate degree attainment, and further that identify students who will be at risk and in need of additional support and interventions in order to be successful.

Finally, and perhaps most significantly, the independent variables, representing broad institutional characteristics, offer potentially important insight to the process for students seeking to apply for transfer admission, and administrators assisting students seeking or planning to seek transfer admission, who could use the data provided as a

general guideline. Although admission outcomes are difficult to predict, whether for freshman or transfer applicants; it is helpful to know what factors are likely to be considered. For instance, students seeking to gain admission to private institutions, especially those institutions that are more competitive for freshman admission, may want to devote additional time to their essays and recommendations.

Students attending community colleges, and especially those gaining associate degrees and/or with more than 60 hours of transferable credit, appear to be well advised to consider seeking admission to public institutions. The quality of a transfer applicant's previous institution is likely to be weighed more strongly at institutions with smaller transfer enrollments, these institutions also favoring students from highly competitive four-year institutions. This is particularly interesting since millions more community college graduates are likely to be headed for baccalaureate-granting institutions in the next decade (Adelman, 2006). It remains to be seen whether they will gravitate toward the public institutions that favor them, or whether private institutions will begin to adjust their standards to meet enrollment, revenue, and diversity targets.

Applicants who had weak high school grade point averages or standardized test scores should note that those secondary records and test scores are likely to count against them at institutions that are more competitive for transfer admission and/or with smaller numbers of transfer students. A student with a very weak high school and standardized test record, for instance, who successfully pursues an associate degree at a community college, may be best served by exploring public institutions with larger transfer enrollment and less selective freshman and transfer admission rates.

This study is just the beginning, providing a base line of information regarding policies in the evaluation of transfer applicants. Without such data, however, it will be difficult to move this area of research forward, and moving this research forward is crucial. Administrators and policy-makers alike are clamoring for an increased enrollment of community college transfers at baccalaureate-granting institutions. Some believe such transfer students will cost-effectively enhance enrollment, others diversity, while others see it largely as a way to fill in a handful of spaces that become available. Regardless, understanding the factors in use to select such students will be a helpful start towards the kind of enrollment management that supports freshmen enrollment efforts.

### Implications for Future Research

As research into the admission of transfer students is just beginning, there are likely dozens of directions for future research. Two of the most urgent implications for future research should begin as soon as possible, one qualitative and the other quantitative.

Qualitative research should include in-depth case studies of the methodologies used to evaluate transfer students. This would best be conducted with a combination of observation, interviews, and review of artifacts to determine exactly how different factors are being used at a variety of institutions. Such research would allow future surveys to be more exact in their language, give a clear understanding to college and university administrators of standard, and perhaps best, policy, and offer students and counselors a more comprehensive understanding of the transfer admission process policy. Some of the

most basic facts need to be explored and questioned within such a study, including the definition of transfer students.

This study defined transfer applicants as students who received post-secondary credit after high school graduation who are seeking admission to a new post-secondary (baccalaureate granting) institution. Other institutions may only classify a student as a transfer after a particular number of transferable credits. Understanding the different types of transfer students, the analysis of what triggers the use of the criteria in this study will be the next step in the research. It is not clear from this study, for example, whether high school grades are used at some institutions to evaluate every transfer applicant, or whether they are only considered under particular circumstances, such as for an applicant with few transfer credit hours.

On the quantitative side, the factors used in the process should themselves be examined for their consistency and to what degree they are predictive of future academic performance. Such a study would best be conducted quantitatively, with as large a representative sample, including as many institutions, as possible. This might first be piloted with individual institutions, or with state-wide educational systems, but to be comprehensive and applicable, it should eventually include a national data sample. In that same vein, Perfetto (1999) claimed a strong link between enrollment goals and freshman applicant evaluation criteria and methods. Since the survey did not collect data on goals or methodology, an exploration of these topics was not possible. It is possible that these factors might have an even greater impact on which factors are used than institutional control, size, or selectivity.



## **APPENDIX A**

Survey provided with permission of the National Association for College  
Admissions Counseling.



## 18th Annual NACAC Admission Trends Survey 2006

Thank you for completing this survey. Please return to NACAC by Friday, December 15, 2006. Mail using the enclosed return envelope, fax to (703) 836-8015, or visit [www.nacacnet.org/trends](http://www.nacacnet.org/trends) to fill out the survey online. These survey results are confidential and results will be reported only in the aggregate (no individual institutions identified).

### I. INSTITUTIONAL CHARACTERISTICS

- 1    **Name of institution:** \_\_\_\_\_  
(Note: This information will be used for response follow up and distribution of the 2007 State of College Admission report only. Your school will not be identified in the reporting of results.)
- 2    **IPEDS ID:** \_\_\_\_\_
- 3    **Type of institution**  
      ☐ Two-year  
      ☐ Four-year
- 4    **Control of institution**  
      ☐ Public  
      ☐ Private
- 5    **Please provide the total number of full-time degree-seeking undergraduates for Fall 2006:**  
\_\_\_\_\_
- 6    **Your institution is located in which state:** \_\_\_\_\_

## II. PROSPECTIVE STUDENTS AND APPLICATIONS

- 7 For the following questions, please include only full-time, first-year, degree-seeking undergraduates students in the admission cycle for Fall 2006 enrollment. Include students who applied using all application strategies, including Early Decision, Early Action, and regular admission.
- A) Number of inquiries received for Fall 2006 admission \_\_\_\_\_
- B) Number of completed applications received for Fall 2006 admission \_\_\_\_\_
- C) Number of students admitted for Fall 2006 \_\_\_\_\_
- D) Number of students enrolled for Fall 2006 \_\_\_\_\_
- 8 Of the applications your institution received for Fall 2006 admission, how many were from:
- Female applicants: \_\_\_\_\_
- Male applicants: \_\_\_\_\_
- 9 Compared to Fall 2005, the number of applications for Fall 2006:
- ☐ Decreased
- ☐ Stayed the same
- ☐ Increased
- 10 Does your institution have any application fees?
- ☐ Yes
- ☐ No
- 10A If yes, please list the fee amount for each of the following types of applications:
- Paper \_\_\_\_\_
- Online \_\_\_\_\_
- International \_\_\_\_\_
- Other \_\_\_\_\_
- 10B If yes, can application fees be waived for applicants with financial need?
- ☐ Yes
- ☐ No

### III. ADMISSION AND ENROLLMENT MANAGEMENT STRATEGIES

**11 Do you have a policy of placing students on a wait list?**

☐ Yes

☐ No

**11A If yes, please answer the questions below for Fall 2006 admission:**

a) Number of applicants placed on the wait list

b) Number accepting a place on the wait list

c) Number accepting a place on the wait list who were admitted

d) Number admitted from the wait list who enrolled

**11B If yes, the number of students who were placed on the wait list for Fall 2006 compared to Fall 2005:**

☐ Decreased

☐ Stayed the same

☐ Increased

**11C If yes, the number of students applying who were admitted from the wait list for Fall 2006 compared to Fall 2005:**

☐ Decreased

☐ Stayed the same

☐ Increased

**12 Does your institution offer an Early Decision plan (an admission plan that permits students to apply early and be notified of an admission decision well in advance of the regular notification date and that asks students to commit to attending if accepted) for first-time, first-year (freshman) applicants for fall enrollment?**

☐ Yes

☐ No

**12A If yes, please answer the questions below for Fall 2006 admission:**

a) Number of Early Decision applications received by your institution

b) Number of applicants admitted under Early Decision plan

c) Number of applicants admitted under Early Decision plan who enrolled

**12B If yes, the number of students applying Early Decision for Fall 2006 compared to Fall 2005:**

- ☐ Decreased
- ☐ Stayed the same
- ☐ Increased

**12C If yes, the number of students you admitted through Early Decision for Fall 2006 compared to Fall 2005:**

- ☐ Decreased
- ☐ Stayed the same
- ☐ Increased

**13 Do you have a non-binding Early Action plan whereby students are notified of an admission decision well in advance of the regular notification date but do not have a commitment to attend your college?**

- ☐ Yes
- ☐ No

**13A If yes, please answer the questions below for Fall 2006 admission:**

- a) Number of Early Action applications received by your institution \_\_\_\_\_
- b) Number of applicants admitted under Early Action plan \_\_\_\_\_
- c) Number of applicants admitted under Early Action plan who enrolled \_\_\_\_\_

**13B If yes, the number of students applying Early Action for Fall 2006 compared to Fall 2005:**

- ☐ Decreased
- ☐ Stayed the same
- ☐ Increased

**13C If yes, the number of students you admitted through Early Action in Fall 2006 compared to Fall 2005:**

- ☐ Decreased
- ☐ Stayed the same
- ☐ Increased

**14** Does your institution use an application process—different from the traditional “student-initiated” application—in which students are sent partially completed applications by mail or e-mail (i.e. snap-apps, fast-apps)?

- ☐ Yes  
☐ No

**14A** If yes, please indicate whether the following criteria are used to select students to receive these partially completed applications (i.e. snap-apps, fast-apps)?

|  | Yes                      | No                       |
|--|--------------------------|--------------------------|
| Contact with the admission office            | <input type="checkbox"/> | <input type="checkbox"/> |
| Test scores                                  | <input type="checkbox"/> | <input type="checkbox"/> |
| High school attended                         | <input type="checkbox"/> | <input type="checkbox"/> |
| Participation in a summer enrichment program | <input type="checkbox"/> | <input type="checkbox"/> |
| Economic status                              | <input type="checkbox"/> | <input type="checkbox"/> |
| Other _____                                  | <input type="checkbox"/> | <input type="checkbox"/> |

**14B** If yes, please indicate which applicant pools are required to complete the following application components.

|                           | Required of All Applicants | Waived for Snap/Fast-App Applicants Only | Not Required of Any Applicants |
|---------------------------|----------------------------|--|--------------------------------|
| Essay                     | <input type="checkbox"/>   | <input type="checkbox"/>                 | <input type="checkbox"/>       |
| Test score submission     | <input type="checkbox"/>   | <input type="checkbox"/>                 | <input type="checkbox"/>       |
| Letters of recommendation | <input type="checkbox"/>   | <input type="checkbox"/>                 | <input type="checkbox"/>       |
| Transcript submission     | <input type="checkbox"/>   | <input type="checkbox"/>                 | <input type="checkbox"/>       |
| Application fee           | <input type="checkbox"/>   | <input type="checkbox"/>                 | <input type="checkbox"/>       |
| Other _____               | <input type="checkbox"/>   | <input type="checkbox"/>                 | <input type="checkbox"/>       |

- 15** Does your institution provide provisional admission to any group of students who may not meet the general academic profile of the entering class, but show potential to do college-level work?
- ☐ Yes
- ☐ No
- 15A** If yes, is the provisional admission policy:
- ☐ Institution-specific
- ☐ Part of a system-wide program
- ☐ Part of a state-wide program
- ☐ Other \_\_\_\_\_
- 15B** If yes, what populations are eligible for provisional admission? Check all that apply.
- | Economically/socially disadvantaged
- | Racial/Ethnic minorities
- | First-generation
- | Athletes
- | Other \_\_\_\_\_
- 15C** If yes, during which Academic Year were students first admitted under this provisional admission policy? \_\_\_\_\_
- 15D** If yes, what percentage of your Fall 2006 entering class was admitted provisionally? \_\_\_\_\_ %
- 15E** If yes, please describe the conditions that students must meet and the support services that are provided to help them succeed.

#### IV. FACTORS IN THE ADMISSION DECISION

16 How important are the following criteria in admission decisions made at your institution?

|                                    | No<br>Importance         | Limited<br>Importance    | Moderate<br>Importance   | Considerable<br>Importance |
|------------------------------------|--------------------------|--------------------------|--------------------------|----------------------------|
| Grades in all subjects             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |
| Grades in college prep courses     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |
| Strength of curriculum             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |
| Class rank                         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |
| Admission test scores (SAT, ACT)   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |
| SAT II scores                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |
| Other subject test scores (AP, IB) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |
| Essay or writing sample            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |
| Interview                          | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |
| Work                               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |
| Extracurricular Activities         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |
| State graduation exam scores       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |
| Counselor recommendation           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |
| Teacher recommendation             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |
| Students' interest in attending    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |

17 To what extent do the following student characteristics influence how the above factors in the admission decision are evaluated?

|                              | No<br>Importance         | Limited<br>Importance    | Moderate<br>Importance   | Considerable<br>Importance |
|------------------------------|--------------------------|--------------------------|--------------------------|----------------------------|
| Race/Ethnicity               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |
| Gender                       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |
| First-generation status      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |
| State or county of residence | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |
| High school attended         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |
| Alumni relations             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |



## V. ADMISSION/ENROLLMENT MANAGEMENT PRACTICE

- 18 According to your best estimate, please indicate the percentage of admission inquiries (i.e., requests for admission applications, information about admission process) that were received in the following ways. (NOTE: Percentages should add to 100.)

|   |       |   |
|---|-------|---|
| Written sources (letters, postcards, reply cards) | _____ | % |
| Telephone calls                                   | _____ | % |
| High school visits                                | _____ | % |
| Electronic sources (e-mail, Web site)             | _____ | % |
| College fairs                                     | _____ | % |
| Other _____                                       | _____ | % |

- 19 Does your institution provide separate campus tours for parents and for students?

☐ Yes  
☐ No

- 20 Does your institution provide separate orientation for parents of first-year students (apart from the orientation for the students)?

☐ Yes  
☐ No

- 21 What percentage of applications did you receive online for Fall 2006? \_\_\_\_\_

%

- 22 The percentage of applications received online for Fall 2006 compared to Fall 2005:

☐ Decreased  
☐ Stayed the same  
☐ Increased

**23 Please indicate whether your institution provides each of the following services or information on your Web site.**

|  | Yes                      | No                       |
|--|--------------------------|--------------------------|
| Online forms for requesting admission information by mail                                | <input type="checkbox"/> | <input type="checkbox"/> |
| Downloadable applications that are submitted via mail                                    | <input type="checkbox"/> | <input type="checkbox"/> |
| Online applications that are submitted via the Internet                                  | <input type="checkbox"/> | <input type="checkbox"/> |
| Information about campus tours   | <input type="checkbox"/> | <input type="checkbox"/> |
| Detailed admission information, including requirements, deadlines, and admission options | <input type="checkbox"/> | <input type="checkbox"/> |
| Online chat rooms  | <input type="checkbox"/> | <input type="checkbox"/> |
| Web log  | <input type="checkbox"/> | <input type="checkbox"/> |
| E-mail newsletters   | <input type="checkbox"/> | <input type="checkbox"/> |
| Information for high school guidance counselors  | <input type="checkbox"/> | <input type="checkbox"/> |
| Information for parents  | <input type="checkbox"/> | <input type="checkbox"/> |
| Online catalog   | <input type="checkbox"/> | <input type="checkbox"/> |
| Online course registration   | <input type="checkbox"/> | <input type="checkbox"/> |
| School profile/snapshot of freshman class academic qualifications                        | <input type="checkbox"/> | <input type="checkbox"/> |
| Financial aid information  | <input type="checkbox"/> | <input type="checkbox"/> |
| College cost information   | <input type="checkbox"/> | <input type="checkbox"/> |
| Other _____  | <input type="checkbox"/> | <input type="checkbox"/> |

**24 Please indicate whether your institution uses each of the following methods to notify applicants of their final admission status.**

|  | Yes                      | No                       |
|--|--------------------------|--------------------------|
| In writing (letter)  | <input type="checkbox"/> | <input type="checkbox"/> |
| By e-mail notification   | <input type="checkbox"/> | <input type="checkbox"/> |
| Allow students to check admission status on institutional Web site | <input type="checkbox"/> | <input type="checkbox"/> |
| By phone   | <input type="checkbox"/> | <input type="checkbox"/> |
| Other _____  | <input type="checkbox"/> | <input type="checkbox"/> |

25 How many admission officers does your school employ? (Include all full-time admission employees who are at least partially responsible for reading applications. Do not include administrative staff.) \_\_\_\_\_

26 Of those admission officers, how many are:

Male \_\_\_\_\_

Female \_\_\_\_\_

Hispanic, regardless of race \_\_\_\_\_

White, not of Hispanic origin \_\_\_\_\_

Black, not of Hispanic origin \_\_\_\_\_

Asian or Pacific Islander, not of Hispanic origin \_\_\_\_\_

American Indian or Alaskan Native, not of Hispanic origin \_\_\_\_\_

27 Compared to last year, the number of admission professionals at your institution:

☐ Decreased

☐ Stayed the same

☐ Increased

28 Please provide the total fiscal budget for the admission office. (This information will be used to calculate cost to recruit figures for applicants, admitted students, and enrolled students for the Fall 2006 admission cycle, using data you provided earlier in the Prospective Students and Applications Section. ) \_\_\_\_\_

29 Please indicate whether each of the following were included in your institution's "total admission budget."

|  | Yes                      | No                       |
|--|--------------------------|--------------------------|
| Admission staff salaries   | <input type="checkbox"/> | <input type="checkbox"/> |
| Admission staff benefits   | <input type="checkbox"/> | <input type="checkbox"/> |
| Staff travel expenses for recruitment/yield  | <input type="checkbox"/> | <input type="checkbox"/> |
| Expenses for participation in college fairs and other recruitment/yield events       | <input type="checkbox"/> | <input type="checkbox"/> |
| Publication expenses   | <input type="checkbox"/> | <input type="checkbox"/> |
| Payments made to third party contractors for admission or recruitment/yield services | <input type="checkbox"/> | <input type="checkbox"/> |
| Other _____  | <input type="checkbox"/> | <input type="checkbox"/> |

30 The budget specifically designated for admission activities during the past year:

- ☐ Decreased
- ☐ Stayed the same
- ☐ Increased

31 According to your institution's hiring policy, how important are each of the following skills or experiences for the position of chief enrollment officer?

|   | Very<br>Important        | Moderately<br>Important  | Somewhat<br>Important    | Not<br>Important         |
|---|--------------------------|--------------------------|--------------------------|--------------------------|
| Technology/Web design                   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Statistics/Data analysis                | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Marketing/Public relations              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Advanced degree (Master's or Doctorate) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Personnel/Resource management           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Writing                                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Business management                     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Previous admission experience           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Higher education administration         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Other _____                             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

## VI. TRANSFER ADMISSION

32 Please provide the number of degree-seeking transfer students who inquired, applied, were admitted, and enrolled at your institution for Fall 2006. Transfer students are those who received college-level credit for work completed after high school graduation.

A) Number of transfer inquiries recieved for Fall 2006 admission

\_\_\_\_\_

B) Number of completed transfer applications received for Fall 2006 admission

\_\_\_\_\_

C) Number of transfer students admitted for Fall 2006

\_\_\_\_\_

D) Number of part-time transfer students enrolled for Fall 2006

\_\_\_\_\_

E) Number of full-time transfer students enrolled for Fall 2006

\_\_\_\_\_

**33 Compared to Fall 2005, the number of transfer applications for Fall 2006:**

- ☐ Decreased
- ☐ Stayed the same
- ☐ Increased

**34 How important are the following criteria in transfer admission decisions made at your institution? Please also CIRCLE only the top three factors that are most important to admission decisions for transfer students.**

|  | No<br>Importance         | Limited<br>Importance    | Moderate<br>Importance   | Considerable<br>Importance |
|--|--------------------------|--------------------------|--------------------------|----------------------------|
| Grade point average at postsecondary institution | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |
| Grade point average in high school               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |
| Average of grades in transferable courses        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |
| Scores on standardized tests (ACT, SAT)          | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |
| Quality of prior postsecondary institution(s)    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |
| Quality of high school                           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |
| Articulation with prior institution              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |
| Essay or writing sample                          | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |
| Work/Extracurricular activities                  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |
| Recommendations                                  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |
| Ability to pay                                   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |
| State or county of residence                     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |
| Race/ethnicity                                   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |
| Students' interest in attending                  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |
| Alumni relations                                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |
| Interview  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |

- 35 Are the following factors considered as "plus", "neutral," or "minus" factors in the decision to admit a transfer student?

|   | Plus                     | Neutral                  | Minus                    |
|---|--------------------------|--------------------------|--------------------------|
| Student received a GED prior to postsecondary enrollment    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Student received an Associate degree                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Student attended a community college                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Student attended a highly competitive four-year institution | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Student has more than 60 hours of transferable credit       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Student visited the campus                                  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Student frequently contacted the admission office           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Student is over 25 years old                                | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Student has a particular academic or professional focus     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Student plans to enroll full time                           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Student plans to enroll part time                           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

- 36 Please list any other factors not identified in this survey that your institution uses in determining the admissibility of a transfer applicant.

- 37 Does your institution recalculate transfer applicants' grade point averages?

☐ Yes

☐ No

- 38 Does your institution provide merit-based scholarships to transfer students?

☐ Yes

☐ No

**Thank you for completing this survey!**



National Association for College Admission Counseling ~ [www.nacac.com](http://www.nacac.com) ~  
1631 Prince Street, Alexandria, VA 22314-2818 ~ phone: 703/836-2222 ~

## **APPENDIX B**

### **2006 LETTERS TO SURVEY PARTICIPANTS**

**NOTE! Fill in your responses to the 2006 NACAC Admission Trends Survey online at <http://www.nacacnet.org/trends>.**

October 31, 2006

Dear Colleague:

The National Association for College Admission Counseling (NACAC) invites your institution to participate in NACAC's 18<sup>th</sup> Annual Admission Trends Survey.

We appreciate the time colleges and universities commit to filling out this survey. *All* respondents who complete the enclosed 2006 Admission Trends Survey will receive a free copy of the 2007 *State of College Admission* report in the spring of 2007. Regular prices are \$10 for members and \$15 for non-members, plus \$5 shipping and handling. The report can be ordered from our Web site, [www.nacacnet.org](http://www.nacacnet.org).

This survey examines current trends in areas including recruitment strategies, admission criteria, Early Decision, Early Action, and the use of technology. Questions for 2006 have been updated to collect additional information on provisional and transfer admission policies and practices.

**Please take a few minutes to complete the survey and return it by Friday, December 15, 2006.** The results of the survey not only serve to inform professionals in the field, but also are consulted by representatives of the media, research organizations, and others seeking to learn more about the college admission process throughout the year. All information gathered will be kept confidential and results will be reported only in the aggregate.

Please return the survey to NACAC in the enclosed business reply envelope, fax it to NACAC at (703) 836-8015, or visit [www.nacacnet.org/trends](http://www.nacacnet.org/trends) to complete the survey online. Please do not return the paper survey if you have already completed it via the Internet. By responding promptly, your institution will be part of the final results and will help identify the issues and trends that directly affect our profession. If you have any questions about the survey, please contact NACAC staff at [research@nacac.com](mailto:research@nacac.com).

Thank you in advance for completing this survey. Watch for the survey results in NACAC's fifth annual *State of College Admission* report, set for release in the spring of 2007.

Sincerely,

Mary Lee Hoganson  
NACAC President



### **Admission Trends Survey Deadline Approaching**

A Reminder to NACAC-member Post-secondary Institutions: If you haven't already done so, please take a moment to fill out NACAC's 2006 Admission Trends Survey. The survey was mailed in late October to all NACAC-member post-secondary institutions. You can fill out the survey online by visiting <http://www.nacacnet.org/trends>. Survey results will be published in NACAC's annual "State of College Admission" report in May 2007. If you have already completed the survey, thank you for your participation!

The deadline for filling out the survey is Friday, December 15, 2006. Please contact NACAC Research at [research@nacac.com](mailto:research@nacac.com) if you have any questions about the survey.

### **2006 Admission Trends Survey Deadline Extended!**

Because we have received a number of requests from colleges and universities, we are extending the reply deadline for the 2006 NACAC Admission Trends Survey until Friday, January 12, 2007.

If you haven't already done so, please take a moment to fill out the survey. The survey was mailed in late October to all NACAC post-secondary institutions. You can fill out the survey online by visiting <http://www.nacacnet.org/trends>. Results will be published in NACAC's annual "State of College Admission" report in May 2007.

If you have already completed the survey, thank you for your participation!

Please contact NACAC Research at [research@nacac.com](mailto:research@nacac.com) if you have any questions about the survey.

## **APPENDIX C**

### **Supplementary Data Tables**

**Table 8: Associations on Scaled Responses**

| Institutional Control                       |            |
|---|------------|
| Factor                                      | CMH Chi-Sq |
| GPA at post-secondary institution           | 0.4536     |
| High school GPA                             | 16.6338*** |
| Average grade in transferable courses       | 3.0893*    |
| Scores on standardized tests                | 16.177***  |
| Quality of prior post-secondary institution | 30.0828*** |
| Quality of high school                      | 24.7814*** |
| Articulation with prior institution         | 2.1548     |
| Essay or writing sample                     | 37.4227*** |
| Work/extracurricular activities             | 27.9839*** |
| Reccomendations                             | 68.6588*** |
| Ability to pay                              | 19.0996*** |
| State or county of residence                | 1.8829     |
| Race or ethnicity                           | 7.0099**   |
| Student's interest in attending             | 15.4878*** |
| Alumni relations                            | 22.882***  |
| Interview                                   | 50.1242*** |

Note: \*p<.1, \*\*p<.05, \*\*\*p<.01

**Table 12: Associations for Top Three Factors by Institutional Control**

| Factors       | Chi-Sq.  |
|---------------|----------|
| Top factor    | 0.2794   |
| Second factor | 9.5139*  |
| Third factor  | 5.9735** |

Note: \*p<.1, \*\*p<.05, \*\*\*p<.01

**Table 14: Associations for  
Additional Factors**

| Institutional Control                           |            |
|---|------------|
| Factors   | Chi-Sq.    |
| Received a GED                                  | 1.4072     |
| Received an associate degree                    | 3.5551*    |
| Attended a community college                    | 4.0009*    |
| Attended a highly competitive four-year college | 16.3475*** |
| More than 60 hours transferrable credit         | 8.9531***  |
| Visited the campus                              | 27.9608*** |
| Frequently contacted the admissions office      | 17.4806*** |
| Over 25 years old                               | 11.7663*** |
| Particular academic or professional focus       | 0.1442     |
| Plans to enroll full-time                       | 8.1566***  |
| Plans to enroll part-time                       | 5.9633**   |

Note: \*p<.1, \*\*p<.05, \*\*\*p<.01

**Table 17: Associations on Scaled Responses**

| Freshman Admit Rate                         |             |
|---|-------------|
| Factor                                      | CMH Chi-Sq. |
| GPA at post-secondary institution           | 0.3888      |
| High school GPA                             | 5.1248**    |
| Average grade in transferable courses       | 4.4717**    |
| Scores on standardized tests                | 3.8724**    |
| Quality of prior post-secondary institution | 4.1303**    |
| Quality of high school                      | 6.1156**    |
| Articulation with prior institution         | 0.2799      |
| Essay or writing sample                     | 12.419***   |
| Work/extracurricular activities             | 19.5162***  |
| Recommmendations                            | 10.9536***  |
| Ability to pay                              | 3.674*      |
| State or county of residence                | 9.7398***   |
| Race or ethnicity                           | 26.3937***  |
| Student's interest in attending             | 0.0673      |
| Alumni relations                            | 12.8984***  |
| Interview                                   | 0.1698      |

Note: \*p<.1, \*\*p<.05, \*\*\*p<.01

**Table 21: Associations for Top Three Factors by Freshman Admit Rate**

| Factors       | Chi-Sq.  |
|---------------|----------|
| Top factor    | 0.0986** |
| Second factor | 0.4824*  |
| Third factor  | 1.1245   |

Note: \*p<.1, \*\*p<.05, \*\*\*p<.01

**Table 23: Associations for  
Additional Factors**

| Freshman Admit Rate                             |            |
|---|------------|
| Factors   | Chi-Sq.    |
| Received a GED                                  | 0.2262     |
| Received an associate degree                    | 1.7498     |
| Attended a community college                    | 1.7031     |
| Attended a highly competitive four-year college | 3.8146**   |
| More than 60 hours transferrable credit         | 4.9284**   |
| Visited the campus                              | 0.3713     |
| Frequently contacted the admissions office      | 1.1062     |
| Over 25 years old                               | 0.7874     |
| Particular academic or professional focus       | 0.0001     |
| Plans to enroll full-time                       | 2.8026*    |
| Plans to enroll part-time                       | 26.7832*** |

Note: \*p<.1, \*\*p<.05, \*\*\*p<.01

**Table 26: Associations on Scaled Responses**

| Transfer Admit Rate                         |            |
|---|------------|
| Factors                                     | Chi-Sq.    |
| GPA at post-secondary institution           | 6.0825**   |
| High school GPA                             | 10.3955*** |
| Average grade in transferable courses       | 7.0955***  |
| Scores on standardized tests                | 9.0459***  |
| Quality of prior post-secondary institution | 10.3279*** |
| Quality of high school                      | 10.4539*** |
| Articulation with prior institution         | 0.126      |
| Essay or writing sample                     | 5.8531**   |
| Work/extracurricular activities             | 14.0179*** |
| Recommmendations                            | 11.5818*** |
| Ability to pay                              | 0.0136     |
| State or county of residence                | 6.0343**   |
| Race or ethnicity                           | 22.4797*** |
| Student's interest in attending             | 1.9067     |
| Alumni relations                            | 9.7422***  |
| Interview                                   | 0.318      |

Note: \*p<.1, \*\*p<.05, \*\*\*p<.01

**Table 30: Associations for Top Three Factors by Transfer Admit Rate**

| Factors       | Chi-Sq. |
|---------------|---------|
| Top factor    | 1.221   |
| Second factor | 1.4254  |
| Third factor  | 0.8938  |

Note: \*p<.1, \*\*p<.05, \*\*\*p<.01

**Table 32: Associations for  
Additional Factors**

| Transfer Admit Rate<br>Factors                        | Chi-Sq.    |
|---|------------|
| Received a GED  | 0.0138     |
| Received an associate<br>degree                       | 1.9515     |
| Attended a community<br>college                       | 1.1715     |
| Attended a highly<br>competitive four-year<br>college | 7.066***   |
| More than 60 hours<br>transferrable credit            | 2.861*     |
| Visited the campus                                    | 2.6996*    |
| Frequently contacted<br>the admissions office         | 0.9123     |
| Over 25 years old                                     | 0.1893     |
| Particular academic or<br>professional focus          | 1.2629     |
| Plans to enroll full-time                             | 5.3864**   |
| Plans to enroll part-<br>time                         | 20.6479*** |

Note: \*p<.1, \*\*p<.05, \*\*\*p<.01



**Table 35: Association on Scaled Responses**

| Institutional Enrollment Factors            | Chi-Sq.    |
|---|------------|
| GPA at post-secondary institution           | 4.2974**   |
| High school GPA                             | 8.2212***  |
| Average grade in transferable courses       | 5.964**    |
| Scores on standardized tests                | 12.5431*** |
| Quality of prior post-secondary institution | 11.7083*** |
| Quality of high school                      | 13.4481*** |
| Articulation with prior institution         | 0.2593     |
| Essay or writing sample                     | 15.3286*** |
| Work/extracurricular activities             | 6.2398**   |
| Reccomendations                             | 31.3824*** |
| Ability to pay                              | 15.2249*** |
| State or county of residence                | 8.445***   |
| Race or ethnicity                           | 0.03       |
| Student's interest in attending             | 25.04***   |
| Alumni relations                            | 7.4466***  |
| Interview                                   | 46.9544*** |

Note: \*p<.1, \*\*p<.05, \*\*\*p<.01

**Table 39: Associations for Top Three Factors by Institutional Enrollment**

| Factors       | Chi-Sq. |
|---------------|---------|
| Top factor    | 0.0296  |
| Second factor | 14.0372 |
| Third factor  | 4.5453* |

Note: \*p<.1, \*\*p<.05, \*\*\*p<.01

**Table 41: Associations for  
Additional Factors**

| Institutional Enrollment                        |            |
|---|------------|
| Factors   | Chi-Sq.    |
| Received a GED                                  | 0.5493     |
| Received an associate degree                    | 0.4004     |
| Attended a community college                    | 0.0087     |
| Attended a highly competitive four-year college | 13.7206*** |
| More than 60 hours transferrable credit         | 1.7928     |
| Visited the campus                              | 23.3665*** |
| Frequently contacted the admissions office      | 22.7113*** |
| Over 25 years old                               | 9.6479***  |
| Particular academic or professional focus       | 0.26       |
| Plans to enroll full-time                       | 7.8756***  |
| Plans to enroll part-time                       | 0.6985     |

Note: \*p<.1, \*\*p<.05, \*\*\*p<.01

**Table 44: Association on Scaled Responses**

| Freshman Class Size                         |            |
|---|------------|
| Factors                                     | Chi-Sq.    |
| GPA at post-secondary institution           | 3.9251**   |
| High school GPA                             | 4.5406**   |
| Average grade in transferable courses       | 4.682**    |
| Scores on standardized tests                | 6.2187***  |
| Quality of prior post-secondary institution | 8.9003***  |
| Quality of high school                      | 10.0416*** |
| Articulation with prior institution         | 1.3683     |
| Essay or writing sample                     | 17.527***  |
| Work/extracurricular activities             | 6.3986***  |
| Reccomendations                             | 27.3744*** |
| Ability to pay                              | 13.8241*** |
| State or county of residence                | 11.127***  |
| Race or ethnicity                           | 0.0901     |
| Student's interest in attending             | 21.7613*** |
| Alumni relations                            | 2.0589     |
| Interview                                   | 34.42***   |

Note: \*p<.1, \*\*p<.05, \*\*\*p<.01

**Table 48: Associations for Top Three Factors by Freshmen Class Size**

| Factors       | Chi-Sq.  |
|---------------|----------|
| Top factor    | 0.0484   |
| Second factor | 11.2845  |
| Third factor  | 5.7467** |

Note: \*p<.1, \*\*p<.05, \*\*\*p<.01

**Table 50: Associations for  
Additional Factors**

| Freshman Class Size<br>Factors                        | Chi-Sq.    |
|---|------------|
| Received a GED  | 0.4839     |
| Received an associate<br>degree                       | 0.113      |
| Attended a community<br>college                       | 0.0043     |
| Attended a highly<br>competitive four-year<br>college | 10.3453*** |
| More than 60 hours<br>transferrable credit            | 0.3492     |
| Visited the campus                                    | 25.1982*** |
| Frequently contacted<br>the admissions office         | 21.6538*** |
| Over 25 years old                                     | 3.2845*    |
| Particular academic or<br>professional focus          | 0.1102     |
| Plans to enroll full-time                             | 5.196**    |
| Plans to enroll part-<br>time                         | 0.4655     |

Note: \*p<.1, \*\*p<.05, \*\*\*p<.01

**Table 53: Association on Scaled Responses**

| Transfer Class Size                         |            |
|---|------------|
| Factors                                     | Chi-Sq.    |
| GPA at post-secondary institution           | 1.0229     |
| High school GPA                             | 21.8787*** |
| Average grade in transferable courses       | 4.1322**   |
| Scores on standardized tests                | 20.6743*** |
| Quality of prior post-secondary institution | 18.8828*** |
| Quality of high school                      | 16.4802*** |
| Articulation with prior institution         | 0.6099     |
| Essay or writing sample                     | 17.2533*** |
| Work/extracurricular activities             | 9.6476***  |
| Recommmendations                            | 25.3969*** |
| Ability to pay                              | 8.85***    |
| State or county of residence                | 5.8649**   |
| Race or ethnicity                           | 2.5578     |
| Student's interest in attending             | 13.0052*** |
| Alumni relations                            | 7.354***   |
| Interview                                   | 29.3873*** |

Note: \*p<.1, \*\*p<.05, \*\*\*p<.01

**Table 57: Associations for Top Three Factors by Transfer Class Size**

| Factors       | Chi-Sq.  |
|---------------|----------|
| Top factor    | 0.592    |
| Second factor | 11.4282* |
| Third factor  | 1.8827*  |

Note: \*p<.1, \*\*p<.05, \*\*\*p<.01

**Table 59: Associations for  
Additional Factors**

| Transfer Class Size                             |            |
|---|------------|
| Factors   | Chi-Sq.    |
| Received a GED                                  | 2.0246     |
| Received an associate degree                    | 2.2268     |
| Attended a community college                    | 0.3632     |
| Attended a highly competitive four-year college | 12.7401*** |
| More than 60 hours transferrable credit         | 5.7666**   |
| Visited the campus                              | 15.0887*** |
| Frequently contacted the admissions office      | 11.2033*** |
| Over 25 years old                               | 11.715***  |
| Particular academic or professional focus       | 1.4734     |
| Plans to enroll full-time                       | 11.0881*** |
| Plans to enroll part-time                       | 2.4188     |

Note: \*p<.1, \*\*p<.05, \*\*\*p<.01

**Table 60: Results of Regression Analysis**

| Dependent Variable                            | Public | Private Institution | Smaller Freshmen | Transfer | More Selective Freshmen | Transfer |
|---|--------|---------------------|------------------|----------|-------------------------|----------|
| Post-secondary grade point average            |        |                     |                  |          |                         | +        |
| High school grade point average               |        |                     |                  | +        |                         | +        |
| Standardized tests                            |        |                     |                  | +        |                         | +        |
| Quality of post-secondary institution         |        |                     |                  | +        |                         |          |
| Quality of high school                        |        | +                   |                  |          |                         |          |
| Essay/writing sample                          |        | +                   |                  |          | +                       |          |
| Work/Extra-curricular                         |        |                     |                  | +        | +                       |          |
| Recommendations                               |        | +                   |                  |          | +                       |          |
| Ability to pay                                |        |                     | +                |          |                         |          |
| Race/ethnicity                                |        | +                   |                  |          | +                       |          |
| Interest in attending                         |        |                     |                  | +        |                         |          |
| Alumni relations                              |        |                     |                  | +        |                         |          |
| GED   |        |                     | +                |          |                         |          |
| Received an associate degree                  | +      |                     | +                |          |                         |          |
| Attended community college                    | +      |                     |                  |          |                         |          |
| Attended highly competitive four-year college |        |                     |                  | +        |                         |          |
| More than 60 hours of credit                  | +      |                     | +                | +        |                         |          |
| Visited the                                   |        |                     | +                |          |                         |          |
| Frequently contacted admissions office        |        |                     | +                |          |                         |          |
| Over 25 years old                             |        |                     | -                |          |                         |          |
| Academic or professional focus                | +      |                     |                  | +        |                         |          |
| Plans to enroll full-time                     |        |                     |                  | +        |                         |          |
| Plans to enroll part-time                     | +      |                     | +                |          |                         |          |

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