A Dissertation

entitled

Assessing Factors Influencing Student Academic Success in Law School

by

Robert R. Detwiler

Submitted to the Graduate Faculty as partial fulfillment of the requirements for the

Doctor of Philosophy Degree in Higher Education

_______________________________

Ronald D. Opp, Ph.D., Committee Chair

__________________________________________

Debra S. Gentry, Ph.D., Committee Member

__________________________________________

Llewellyn J. Gibbons, J.D., Committee Member

__________________________________________

Robert D. Yonker, Ph.D., Committee Member

__________________________________________

Patricia R. Komuniecki, Ph.D., Dean
College of Graduate Studies

The University of Toledo

December 2011
© 2011, Robert Richard Detwiler

This document is copyrighted material. Under copyright law, no parts of this document may be reproduced without the expressed permission of the author.
An Abstract of
Assessing Factors Influencing Student Academic Success in Law School

by

Robert R. Detwiler

Submitted to the Graduate Faculty as partial fulfillment of the requirements for the
Doctor of Philosophy Degree in Higher Education

The University of Toledo
December 2011

The literature on student academic success of law students is limited to mostly single institution studies, and as such, a nationwide, multi-institutional empirical study of the factors that predict student academic success is greatly needed by higher education scholars, law school admission officers, faculty, and administrators. This dissertation analyzed what effect, if any, undergraduate GPA and LSAT scores, in addition to environmental variables, has on cumulative law school GPA among full-time third-year law students in the United States responding to the 2008 Law School Survey of Student Engagement. A regression analysis revealed five input measures, one between-college characteristic, and fifteen environmental measures were significant predictors of cumulative law school GPA among third-year law students (n=1,756).

The intended outcomes of the dissertation are twofold. First, law school faculty and administrators can use this information to promote student involvement that has been shown through this dissertation to influence students’ GPA, which is well known in the legal education environment to be critical in the internship and job search process. Second, future studies of law students and other fields of professional education are encouraged to examine what role, if any, student involvement has on outcomes.
Acknowledgements

Above all, I must give praise to my Lord and Savior, Jesus Christ. Accepting Him into my heart was the best gift I have ever received in my life. It is my sincere hope that everyone who reads this dissertation will accept the gift of His grace and love, and that His gifts and blessings on my life will impact others for the glory of God.

First, my lovely wife Sarah – I love you so much, and it’s an honor to be your husband. I could not have made it through this journey without your support and patience, and I’m so excited to what is in store for us in the years to come. I am incredibly blessed to have such a supportive family, especially Mom, and I definitely acknowledge their support and help in making it through all the tough times in life.

A number of friends have been rocks of stability in my life, including Marc and Adriane Reynolds, Peter Nalepa, Maria Phillis, Keith and Kiera Kurak, Scott Harpel, and my numerous friends at Westgate Chapel. Thank you for your years of friendship, love, and prayers. I am also indebted to numerous advisers at CWRU for years of advice and support, including Tim Dodd, Ken Ledford, Ted Steinberg, Joe Pieri, Tom Matthews, Glenn Nicholls, Clay Barnard, Sue Nickel-Schindewolf, Dean Patterson, Melissa Winter, and Melissa Alford-Snyder. Clint Longenecker at UT has also been an invaluable source of advice and mentorship that will never be forgotten.

I am also grateful for the support of NAGAP for generously supporting this work through a grant from the Annual Graduate Enrollment Research Grant Competition. Many thanks also goes to Bob Yonker, Llew Gibbons and Deb Gentry for offering their time as part of the dissertation committee, and finally, to Ron Opp for spending countless hours with me as my adviser and chair of my dissertation.
# Table of Contents

Abstract iii

Acknowledgements iv

Table of Contents v

List of Tables x

List of Figures xi

I. Introduction 1

A. Problem Statement 2

B. Purpose of the Dissertation 3

C. Research Questions 5

D. Theoretical Framework 6

E. Conceptual Framework 6

F. Significance of the Dissertation 8

G. Definitions of Terms 10

H. Delimitations 12

I. Limitations 12

J. Organization of the Remaining Chapters 14

II. Literature Review 16

A. Introduction 16

B. History of American Legal Education 16

   i. Legal Education in the Colonial Era 17

   ii. Harvard Leads the Way: Early Reforms in Legal Education 18

   iii. Modern Attempts to Influence Legal Education 22
1. Creation of the LSAT 22

2. The MacCrate Report 23

3. The Carnegie Report 24

C. Literature on Student Academic Success 26
   i. Defining Student Academic Success 26
   ii. Studies of Undergraduate Students 27
   iii. Studies of Graduate and Professional Students 28
   iv. Studies of Law Students 31

   1. Using Undergraduate GPA and LSAT to Predict Law School GPA 31

   2. Student Involvement’s Impact on Law School GPA 33

   3. Popularized Law School Success Strategies 35

   4. The Law School Environment 36

   5. Impact of U.S. News Rankings on Law Schools 38

D. Socialization Theory 40

E. Student Involvement Theory 41

F. I-E-O Model 42

G. Summary 44

III. Methodology 46

A. Introduction 46

B. Theoretical Framework 46

C. Data Analysis Framework 47

D. Population and Sample of Interest 49
E. Data Collection Procedures and Survey Instrument 50

F. Data Analysis Procedures 55

G. Assumptions 56

H. Limitations 58

I. Summary 58

IV. Analysis of Data 60

A. Introduction 60

B. Characteristics of the Sample 61

C. Review of the Research Questions 64

D. Blocked Form of Stepwise Regression 64
   i. Block One – Inputs 70
   ii. Block Two – Between-College Characteristics 71
   iii. Block Three – Student-Student Interaction 71
   iv. Block Four – Student-Faculty Interaction 71
   v. Block Five – Academic Involvement 72
   vi. Block Six – Non-Academic Involvement 73
   vii. Block Seven – Intermediate Educational Outcomes 73

E. Summary 74

V. Discussion, Recommendations and Conclusions 75

A. Introduction 75

B. Purpose of the Dissertation 75

C. Discussion of the Results 76
   i. Block One – Inputs 77

vii
ii. Block Two – Between-College Characteristics 80

iii. Block Three – Student-Student Interaction 81

iv. Block Four – Student-Faculty Interaction 82

v. Block Five – Academic Involvement 83

vi. Block Six – Non-Academic Involvement 86

vii. Block Seven – Intermediate Educational Outcomes 86

D. Recommendations for Future Research 89

i. Law Students 90

ii. Involvement Theory 91

iii. Indiana University Center for Postsecondary Research 91

E. Implications for Professional Practice 95

i. Implications for Law School Administrators and Staff 95

ii. Implications for Law School Faculty 96

F. Policy Implications 97

G. Limitations of the Dissertation 99

H. Conclusions 101

References 105

Appendices

A. Variables Grouped by Blocks 121

B. 2008 Law School Survey of Student Engagement (LSSSE) 127

Survey Instrument

C. University of Toledo Institutional Review Board Approval 132
D. Pearson Product Moment Correlation Table for Factors Found to be Significant Predictors of the Criterion Variable

E. Indirect Effect Variables
List of Tables

Table 1: Significant Predictors of Cumulative Law School GPA………………….67
Table 2: Significant Predictors of Cumulative Law School GPA in Order of Final Step Beta-Weight Strength……………………………………………………….69
List of Figures

Figure 1. Astin’s (1991) I-E-O Model .............................................................7
Figure 2. Conceptual model for the study of factors influencing cumulative
          law school GPA..........................................................8
Figure 3. Model for this dissertation..........................................................55
Chapter One

Introduction

Participation in graduate and professional education is quickly becoming an increasingly common occurrence in American society (Baird, 1996). Since 1990, the number of students enrolled in professional education in the United States has grown by more than 28% to over 350,000 students. The number of graduate students in America has also seen tremendous growth, as all fields of graduate study saw a combined 44% increase in student enrollment from 1990 to 2007 (Chronicle of Higher Education, 2009).

Legal education has also grown into a sizable presence in the American educational landscape, evidenced by the growth in the number of law schools (135 to 200) and the number of students attending law school (increased three-fold from 49,552 students to 152,033 students) over the last 46 years. The number of law students also has led to increased numbers of degrees awarded. During the 1962-1963 academic year, law schools conferred the Juris Doctorate degree (JD) on 9,638 students, while the 2008-2009 academic year saw 43,588 JD degrees awarded, more than a 450% increase since the American Bar Association started to keep records of JD enrollment (American Bar Association, n.d.c.). The professional school student population continues to grow, partially due to the labor market continuing to look to the higher education sector for graduates with higher credentials for entry-level employment (Haworth, 1996a; Syverson, 1996). Research is needed to assess the factors that predict student success in
legal education (Baird, 1993), so that law schools can best prepare students for success in school and the legal profession.

**Problem Statement**

Although participation in legal education has significantly increased over the last half century, the vast majority of academic studies from higher education scholars on assessment and student academic success have focused on the undergraduate student population (Bilder & Conrad, 1996; Girves & Wemmerus, 1988). Numerous educational researchers, notably Alexander Astin (1993) and Earnest Pascarella and Patrick Terenzini (2005) among others (Avalos, 1996), have studied the influence of inputs and environmental variables on undergraduate student performance and retention, but to date, very little empirical, multi-institutional research has been conducted on the university environment’s impact on law student academic success. Malmberg’s study (2008) of the factors influencing academic success of first-year Hispanic JD students is a useful addition to the study of law student academic success, but since Malmberg’s study sample came from only one law school in the Southwest, his dissertation may have limited application to the nationwide population of law students.

Law school GPA is an important outcome variable to study for a number of reasons. First, memberships in prestigious activities (moot court, law review, student-faculty committees, research projects, etc.) are usually restricted based on a student’s GPA. Second, these activities, as well as interviews for prestigious internships and jobs in law firms, are predicated solely on law school GPA or class rank (L. Gibbons, personal communication, October 18, 2010; Sheldon & Krieger, 2007). Salary in post-law school full-time positions also depends on law school GPA. For example, among individuals
who passed the bar examination on the first try, the median salary for students with a cumulative law school GPA above a 3.75 was $94,000. The median salary for law school graduates with a 2.25-2.49 cumulative law school GPA was only $50,500 (Yakowitz, 2010). The salary patterns were also similar for students who did not pass their state bar examination on the first try, but eventually achieved a passing score.

Not knowing what factors, if any, positively or negatively influence a student’s GPA in law school places the student and the school at a significant disadvantage when preparing the student for the world of legal practice and for promoting activities that help a student succeed in the classroom.

**Purpose of the Dissertation**

The purpose of this dissertation was to determine what influence, if any, input and environmental variables have on a law student’s academic performance. Input variables such as undergraduate GPA and LSAT scores were utilized, along with law school environmental factors.

This dissertation is the first known examination of the factors that influence law student academic success utilizing a nationwide, multi-institutional dataset of law students. The vast majority of the literature on the population of graduate and professional student academic success has only focused on the retention and completion patterns of Ph.D. students (Bowen & Rudenstine, 1992; Mwenda, 2010; Nerad & Miller, 1996). In addition, with the notable exception of Bowen and Rudenstine’s work on Ph.D. students (1992), most of the current literature on graduate and professional student academic success has been limited to a single institution, leading to a limitation in the applicability of the results to other institutions. Girves and Wemmerus (1988) proposed a
model of graduate student retention and success based on studies of students at multiple universities, but since their model only addressed masters and Ph.D. students, research needs to be conducted on the factors that influence law students’ academic success.

The National Center for Educational Statistics (NCES) recently completed the final data collection on an impressive longitudinal study entitled Baccalaureate and Beyond (B&B). This study tracked students who completed their undergraduate degree in 1993, and over the course of several follow-up surveys, gathered student information on enrollment and completion of graduate and professional school. Numerous studies on graduate and professional students have utilized the B&B data set, including the impact of student loan debt and financial aid on graduate school matriculation (Choy, Li, & Carroll, 2006; Gururaj, Heilig, & Somers, 2010; Heller, 2001); students’ decisions to enroll in graduate and professional school (McCall, 2007; Nevill, Chen, & Carroll, 2007); the decisions of teachers to enter or leave the teaching profession (Alt, Henke, & Perry, 2007; Anderson & Carroll, 2008; Henke, Peter, Li, & Geis, 2005); and the impact of graduate and professional school on salary and employment (Bell, 2010; Bradburn, Nevill, Cataldi, & Perry, 2006; Choy, Bradburn, & Carroll, 2008). All of these studies that used B&B data have findings that could be relevant to both researchers and law school administrators. Unfortunately, since the B&B survey did not collect any information on what graduate students did while they were in graduate school, this dataset cannot be used for this dissertation to determine the educational activities that influence law school student academic performance.

This gap in the literature is partly due to the undergraduate “admissions function” (Hossler, 1996, p. 57) existing for two and a half centuries longer than graduate
education, but more so because “despite its burgeoning popularity, the recent assessment
movement has focused largely on undergraduate education” (Haworth, 1996a). The
assessment movement has serious implications for state-supported universities, as
legislatures are starting to base state funding formulas on degree completion rather than
on the number of students enrolled (Donovan, 2010; Moltz, 2009). In short, if colleges
fail to understand the factors that help students persist and succeed in post-baccalaureate
education, especially in law schools, state support for the university may decrease and
eventually lead to layoffs and/or the possible elimination of some degree programs.

Research Questions

Below are the eight research questions in this dissertation, which address what
factors, if any, influence cumulative law school GPA (the criterion variable) of full-time,
third-year JD students.

1. What influence, if any, do undergraduate GPA and LSAT scores have on the
criterion variable?
2. What influence, if any, do other input measures have on the criterion variable?
3. What influence, if any, do between-college characteristics have on the
criterion variable?
4. What influence, if any, do student-student interaction variables have on the
criterion variable?
5. What influence, if any, do student-faculty interaction variables have on the
criterion variable?
6. What influence, if any, do academic involvement variables have on the
criterion variable?
7. What influence, if any, do non-academic involvement variables have on the criterion variable?

8. What influence, if any, do intermediate educational outcomes have on the criterion variable?

**Theoretical Framework**

Alexander Astin’s theory of student involvement served as the theoretical framework for the dissertation. Student involvement theory (Astin, 1984, 1999) posits that the more involved students are with the undergraduate experience, the better chance they will persist and graduate. Astin argues that while student characteristics (inputs) are useful in predicting the outcomes of students (e.g. college GPA, retention), the activities a student participates in while in college (environmental factors) are also important in shaping the outcomes of a student’s college career.

To date, only a very limited amount of research (Gore, 2009) has applied the student involvement theory to first-professional school students to determine what influence, if any, specific input and environmental factors have on a student’s persistence or academic success. No previous research has been found that has empirically applied the student involvement theory to JD students to assess the environmental effects of the law school experience on students’ educational performance. Applying student involvement theory on the law school population added to the literature on understanding the factors that influence law students’ academic success.

**Conceptual Framework**

Astin’s I-E-O model (Astin, 1991) was the conceptual framework for this dissertation. While quite simplistic on face value, the I-E-O model is powerful in
describing the effects of college on students. Astin’s I-E-O model separates inputs, environmental factors, and outputs into three distinctly separate blocks. The I-E-O model is shown below, and visually represents the effects of involvement and the collegiate environment on an output of interest.

\[ 
\text{Environmental Measures:} \quad \text{Between-College and Within-College} \\
\text{Input Measures} \quad \rightarrow \quad \text{Outcomes:} \quad \text{Cognitive or Affective} 
\]

\textit{Figure 1.} Astin’s (1991) I-E-O model.

Student inputs for this dissertation included factors such as undergraduate GPA, family income and educational levels, and LSAT scores, among others. Environmental variables included any factor external to the student, such as characteristics of the institutional environment, the student’s involvement with faculty, other students, and the amount of energy a student exerts in academic activities. Outputs are defined as the desired educational outcome (e.g. GPA, graduation, satisfaction, etc.). In this dissertation, the output of interest is the cumulative law school GPA (LGPA) of third-year, full-time law school students. The model below visually describes how inputs and environmental factors directly influence the outcome of interest.
Figure 2: Conceptual model for the study of what factors, if any, influence cumulative law school GPA (assessed in the third year of law school).

Significance of the Dissertation

This dissertation filled in a sizable gap in the literature on graduate and professional students by using Astin’s student involvement theory and the IEO model to predict law school GPA. In addition, the majority of the studies on law students have focused on students at a single institution, thus only allowing for a limited application of the findings to other populations. Although this dissertation’s findings are only applicable to JD students, this population is large enough to warrant investigation, and gives
direction for additional studies focusing on the specific needs of other professional degree students (e.g. MD, MBA, DDS, PharmD, etc.).

The findings of this dissertation are of particular importance to law school admissions offices and committees, law school administrators, and the American Bar Association. This dissertation provides critical information to law school faculty and administrators on which factors influence students’ law school GPA. Law schools can then respond by implementing programming targeted at the factors that are proven to have an impact on students’ GPA. For example, if a student’s involvement in community pro bono legal assistance programs has a strong influence on law school GPA, law schools might want to look into promoting or creating incentives to encourage student participation in legal clinics and community legal assistance programs.

In addition, the dissertation’s results gives additional support to the view that universities should focus their efforts on developing their students’ talents and helping them learn, instead of focusing on improving their rankings through increasing statistics that correspond with a counterproductive “reputational view of educational excellence” (Astin, 1985, p. 25; Christensen, 2009; Haworth & Conrad, 1996; O’Day & Kuh, 2006; Pascarella & Terenzini, 2005). This argument of graduate program quality was well summarized a quarter of a century before Astin’s discussion of the “talent development” point of view: “Are the products better because the training is better, or because the students were better in the first place?” (Bereleson, 1960, p. 125). This dissertation helps move the talent development model forward in the law school arena.
Definitions of Terms

1L refers a student in their first full-time year of law school.

2L refers to a student in their second full-time year of law school.

3L refers to a student in their third full-time year of law school.

AALS: The Association of American Law Schools is “a non-profit educational association of 171 law schools...the purpose of the Association is the improvement of the legal profession through legal education.” The group also acts as law schools’ primary lobbying representative to the federal government and other legislative bodies and learned societies (Association of American Law Schools, n.d.).

ABA: The American Bar Association is the “largest voluntary professional association in the world”, and both assists practicing lawyers in their work and is the sole accrediting body of law schools in the United States and Puerto Rico (American Bar Association, n.d.b.). Eighteen states explicitly require individuals to graduate from an ABA-accredited law school in order to take the state bar examination (National Conference of Bar Examiners, 2010), and attending an ABA-approved law school guarantees that the student has met the educational requirements to sit for the bar examination. It is also worth noting that the U.S. Department of Education recognizes the ABA as the only accrediting body for law schools.

Between-College Characteristics describes variables that differ between universities, but not within a university. Examples of between-college characteristics would be tuition rates and law school selectivity.
Blocks are used to describe similar types of variables (input, environmental, and outcome) that are grouped together for the purpose of entering into a data analysis software application.


Involvement Theory was developed by Alexander Astin (1984, 1999) that argues the amount of a student’s learning in college is directly related to the investment of time and energy of a student into the collegiate environment.

Intermediate Educational Outcomes refers to environmental variables that occur sometime between initial enrollment in college and assessment of the outcome variable. This suggests a temporal sequence of events. Astin gives an instructive example to illustrate his argument:

“Suppose we want to test the theory that fraternity membership strengthens conservative political beliefs. If a student decides to join a social fraternity during his sophomore year (intermediate outcome), the input measures obtained from that student at the beginning of the freshman year may no longer be appropriate, since some of these measures might have changed during the interim, and these very changes might have affected the student’s decision to join a fraternity or a sorority” (Astin, 1991, p. 306).

JD: The *Juris Doctorate* is the first degree awarded by U.S. law schools.

LGPA refers to a student’s law school *grade point average*.

LSAC: The *Law School Admissions Council* provides services to law schools and applicants, including administering the Law School Admission Test (LSAT) and processing all applications and supporting documents for a student’s application for admission to law school.
**LSAT**: The *Law School Admission Test* is the standardized test required of all applicants to law schools, and is administered by The Law School Admissions Council (LSAC).

**LSDAS**: The *Law School Data Assembly Service* is the centralized data clearinghouse that processes admission application information (e.g. letters of reference, undergraduate GPA, transcripts) to law school admission offices. The Law School Admissions Council (LSAC) operates the LSDAS.

**Within-College Characteristics**: describes environmental variables that differ between students within the same university. Examples of within-college characteristics would be law student satisfaction, and participation in community service activities.

**UGPA**: *undergraduate grade point average*.

**Delimitations**

Creswell (2003) defines delimitations as the constraints that a researcher places on their study in order to narrow its scope. This dissertation utilizes a quantitative approach to data analysis and a web-delivered survey instrument. The sample was law schools in the United States that paid a fee to the Law School Survey of Student Engagement.

**Limitations**

Also according to Creswell (2003), limitations are the potential weaknesses of a study. The LSSSE survey relies entirely on student’s self-reported information, including LGPA range, LSAT scores, activities the student participated in while they were involved in while in law school, among others. Survey respondents may not have responded honestly to the survey questionnaire, leaving room for bias in the interpretation of data.
and reporting results. The survey respondent may also misunderstand the survey questions, also leading to potential false positives and/or false negatives in reporting data analysis results.

Although a quantitative study approach has its advantages, the richness of data that would be gained from conducting focus group and individual interviews are excluded from this dissertation’s results. For example, interviews conducted with law students may yield important information on the factors that helped these students succeed or fail in law school. These data may not be able to be collected due to the survey design.

Any generalizability of the dissertation to the entire law student population is also diminished due to the number of survey responses. Since this dissertation does not include responses from every law school student in the United States, the results cannot be universally applied to every law student and to every law school in the United States.

In addition, there may also be factors that positively or negatively impact a student’s academic performance in law school that are outside of the law school’s control. The survey includes many non-academic factors that could have an impact on a student’s academic performance in law school, but not every potential academic or non-academic factor could possibly be included in a survey. Also, situational factors among law schools may indirectly influence a student’s academic performance.

Gaining admission to law school usually necessitates an impressive dossier, including a high undergraduate GPA, stellar LSAT scores, and holding leadership positions in student organizations. Since this population is naturally self-selecting and relatively homogeneous, both the sample and population of interest may have quite similar input characteristics. This dissertation’s results are thus likely only applicable to
law school students who are high achievers at the undergraduate level. However, seventy-nine American law schools participated in the 2008 LSSSE survey (Law School Survey of Student Engagement, 2010b), which represents 39.5% of the law schools accredited by the American Bar Association (American Bar Association, n.d.a.). Since this dissertation includes survey responses from law schools across the country (e.g. Ohio State, North Carolina, Yeshiva, Univ. of Utah, Tennessee) and from selective and less selective law schools, the results should be applicable to all law schools across the country.

In addition, assessing law students in their third year of law school does not allow the researcher to get responses from students who have left law school due to academic and non-academic reasons in their cohorts’ first and second year of law school. Thus, this dissertation utilized responses from students who have already succeeded by completing two full-time years of legal education. Additional insight would be gained if it were feasible to follow up with students who have left law school to find out what factors, if any, were responsible for their decisions to leave law school.

**Organization of the Remaining Chapters**

This dissertation has a total of five chapters, including this one. The first chapter introduced the problem of little research on the issue of factors that may influence law student GPA. The second chapter discusses the relevant literature on factors that influence law students’ academic performance, the predictive validity of LSAT scores, and student involvement theory, among others. Chapter Three presents the research methodology including a discussion of the survey instrument, data collection procedures, and data limitations. Chapter Four contains the dissertation results and a presentation of the data. Finally, Chapter Five summarizes the dissertation, results, and gives
recommendations for further study and how the results can be used by law school administrators to support their students in designing and maintaining retention and student life programming.
Chapter Two

Literature Review

Introduction

This dissertation examined what factors, if any, influence a law student’s cumulative grade point average near the end of law school. An understanding of the prior work in this field must take place before an empirical examination of these potential factors. First, the history of American legal education will be discussed. Several historical attitudes and events have shaped legal education into what it is today, so it is imperative to have a sense of “how we got here” before considering the current state of legal education. Second, the literature on student academic success will be explored. A definition of “student academic success” for the purpose of this dissertation will be presented, along with a review of the studies on undergraduate students and graduate/professional students. The literature on factors influencing law student academic success will also be explored. The chapter ends with a discussion of Astin’s student involvement theory and the I-E-O model and their application to undergraduate and graduate/professional degree students.

History of American Legal Education

The current state of American legal education is a direct result of traditions, customs, and debates stretching all the way back to pre-colonial America. Exploring the history of legal education in the United States will lend an extraordinary hand in giving context to modern debates on reforming legal education. Robert Stevens’ sweeping
Legal Education in the Colonial Era. Given that the American colonies were founded under the auspices of the British Crown, it is not too surprising that the English apprentice system, coupled with a formal examination, was the dominating system of training lawyers up until 1776 (Stevens, 1983). Many of the colonies before and after the American Revolution required several years of apprentice work, with allowed reductions in service for college graduates, before lawyers were permitted to practice and litigate.

After the American Revolution, both the formalized apprentice system, coupled with the Colonies gaining independence from England, resulted in the establishment of several private law schools. The most famous and successful of these private law schools was the Litchfield Law School in Connecticut, founded in 1784. Litchfield approached the study of law “as a science, and not merely nor principally as a mechanical business” (Stevens, 1983, p. 4). The growth in private law schools after the Revolution mirrored the growth in new undergraduate colleges. Although the number of law professors at colleges increased significantly after George Wythe’s appointment at the College of William and Mary, students were still finding more serious and rigorous academic training in the private law schools like Litchfield.

The number of lawyers in America began to increase significantly in part due to the Industrial Revolution’s influence on companies needing guidance to navigate an increasingly litigious environment. The majority of these new entrants into the legal profession gained their legal training through a proprietary school like Litchfield or
through the apprenticeship process, not through a formal education that would be found at Yale or Harvard. In fact, “most of the leading lawyers…were highly skeptical as to the possibilities of securing competent legal knowledge by means of professional schools” (Stevens, 1983, p. 23).

Although the majority of American lawyers were hesitant to embrace legal education in the classroom as acceptable professional training, the legal community did agree that more needed to be done to enhance the quality of new lawyers. As such, the burgeoning standardization movement in legal education reflects the Industrial Revolution age in America, where standard manufacturing and production processes were highly sought after and prized. However, conflicts emerged in the legal community on the amount of practical training that should be given to future lawyers and the amount of attention that should be devoted to academic training. The stage was set for reform.

**Harvard Leads the Way: Early Reforms in Legal Education.** During the 1850s, a certain number of law schools possessed the “diploma privilege,” which gave the law school the power to determine whether a person had the ability to sit for the bar examination. Several schools like Columbia and Albany Law School had the diploma privilege, but it was denied to Harvard Law School. The diploma privilege issue was an internal debate that reflected the push for greater accountability and standards in legal education.

A significant product of this debate manifested itself in the creation of the American Bar Association in 1878. Lewis Delafield, the leading opponent of the diploma privilege, delivered a speech at the 1877 meeting of the American Social Science Association in Saratoga, New York. Delafield, then president of the ASSA, called for a
new association of American lawyers to help raise the standards of entry to the legal profession. His call to found the ABA, in addition to a push to formally evaluate future lawyers by “impartial examiners” (Stevens, 1983, p. 28) helped move along the development of the modern law school.

Up until the 1870s, Columbia Law School was regarded as the premier law school in America. Meanwhile, in Cambridge, several individuals would come together at Harvard Law to help chart the course of major reforms and standardization of the law school curriculum, structure, and style of teaching. Charles Eliot was appointed president of Harvard College in 1869, and Christopher Columbus Langdell arrived one year later as dean of the law school. At this point in history, the law school and Harvard College were unrelated, and in addition, law school existed on the same level as the undergraduate Harvard College. As a result, “students in general chose either law school or college, not both” (Stevens, 1983, p. 36). This is not entirely a surprise given that American graduate education did not exist in its current state until Johns Hopkins University was established in 1876 as a post-graduate university (Thelin, 2004). This trend of law schools operating on the same level as the undergraduate college continued even through the start of World War I in 1914, at which point only Harvard and the University of Pennsylvania were the only universities to have “a serious claim to have the law curriculum treated as a graduate one” (Stevens, 1983, p. 37). In 1921, when Alfred Reed issued an influential report on legal education for the Carnegie Foundation, several colleges, including Yale, Stanford, Western Reserve College, and Columbia, followed Harvard’s lead in requiring an undergraduate degree for admission to the law school.
Stevens argues that although Langdell’s name is associated with many of the legal education reforms during this period, Eliot was more instrumental in helping Harvard supplant Columbia as the nation’s preeminent law school. Eliot, well known by higher education historians for his development of the elective system at the undergraduate level (Thelin, 2004; Stevens, 1983), pushed Langdell to adopt several changes at the law school, including having the Harvard Board of Overseers approve a three-year requirement for any student earning the LL.B. degree at Harvard.

In 1873, James Barr Ames was appointed an assistant professor of law at Harvard. Ames, a Harvard Law graduate, was recruited by Langdell to teach at Harvard because he was an academic who had “experience in learning law” (Stevens, 1983, p. 38). Ames’ appointment reinforced Harvard’s view that the best way to learn the law was to utilize a scientific approach through examining representative cases. The case method approach “was seen as so self-contained that the hand of a practitioner was not to sully its purity” (Stevens, 1983, p. 38). Legal historians agree that Ames’ appointment and the implementation of the case method (now the standard method of law instruction across the United States) fully established a division in legal education between academics and practitioners (Kissam, 2003; Stevens, 1983). It is the case method that is also known today as teaching students to “think like a lawyer.” Although there was initial resistance to the case method, virtually all law schools eventually accepted the case method of teaching and Harvard’s law elective system by 1920 (Kissam, 2003; LaPiana, 1994; Stevens, 1983). The proliferation of legal academics in law school also resulted in the establishment of the Association of American Law Schools (AALS) in 1900, which
further deepened the trench separating the factions arguing for either the scientific analysis of the law (“thinking like a lawyer”) or training students “how to be a lawyer.”

Implementing the case method also presented a financial opportunity for law schools. Stevens argues that the case method allowed law schools to significantly increase their class sizes without adding any additional faculty. In addition, the case method allowed law libraries to reduce the number of new volumes they needed to add every year as students did not need to rely solely on reading texts for class preparation. Obviously, any method that could help law schools increase their profits, while keeping fixed costs low, was very appealing (Chemerinsky, 2008). Most law schools embraced the case method as it allowed them to find a way to combat their financial woes. While law schools’ adoption of the case method was related to a “follow the leader” mentality, the cost advantages of the case method over the standard lecture format cannot be ignored as a factor in its implementation.

The part-time and proprietary law schools were essentially thorns in the side of the “academic” law schools such as Harvard and Columbia. Early in the twentieth century, Abraham Flexner led a crusade to eliminate marginal and outright dangerous medical schools. His pioneering 1910 report on the status of medical education helped to advance the scientific method of training future doctors and to eliminate more than a third of medical schools in the U.S. Years later, Flexner produced another report, this time on the status of legal education. Thelin (2004) writes that the results of the law school report were less than stellar because Flexner vastly underestimated the influence of local bar associations and the private law school alumni, who were firmly entrenched across the country as judges and partners in successful firms. Although Flexner had a well-deserved
reputation for being one of the most prominent educational reformers of the era, he failed in his quest to reform legal education, mostly due to external political influence on legal education and the high pre-existing market demand for practical legal training.

**Modern Attempts to Influence Legal Education.** Since the end of World War II, numerous voices have emerged in the attempt to modernize and continuously improve legal education. Three events stand out as watersheds in this movement: the creation of the LSAT in 1947-1948, and the issuance of the MacCrate and Carnegie Foundation Reports (Garvey & Zinkin, 2009).

**Creation of the LSAT.** The modern intelligence testing movement in the United States emerged in the early parts of the twentieth century as a way to test potential soldiers for World War I. Starting as early as the 1920s, several law schools had developed their own standardized tests to measure the suitability of law school applicants (LaPiana, 1998). But after the end of World War II, law schools began to see a dramatic increase in applications from women and minorities (Edwards, 2006). This increase in the non-traditional applicant population, and a desire of law schools to have a statistical prediction of first-year law school grades prompted Columbia’s director of law admissions to call a meeting with the College Entrance Examination Board. LaPiana (1998, p. 4) specifically points out that “the LSAT was linked to success in law school, not success at the bar.” The LSAT was then formally conceptualized at a meeting between Columbia, Harvard, Yale, and additional leading law schools at a meeting in November 1947, and the first LSAT was administered in 1948.

Of particular note is a claim that the LSAT was created in part to keep women and minorities out of law school (Edwards, 2006). The argument that the LSAT’s
development was racially motivated does have some merit, since the early twentieth century is characterized as a hostile environment towards immigrants, Jews, Catholics and other minorities (Edwards, 2006; LaPiana, 1998). As Edwards states, “there have been calls to lessen or eliminate the use of the LSAT in light of the history of the LSAT, the test’s negative effects on women and applicants of color, and studies showing that LSAT scores do not correlate to success in the legal profession” (Edwards, 2006, p. 165).

Given law schools’ heavy reliance on the LSAT in admission decisions, its emergence in the 1940s has been a watershed for the development of modern legal education. It is also worth noting that ABA accreditation guidelines require the use of a standardized test for admission purposes. Although the guidelines do allow for schools to use a test other than the LSAT, no ABA-accredited law school in the U.S. accepts a test other than the LSAT for admission into the program.

**The MacCrate Report.** In 1992, the American Bar Association convened a group of law school faculty and administrators to deliberate over the future of American legal education. The resulting report from this “Task Force on Law Schools and the Profession” quickly came to be known as the MacCrate Report, named for task force chair and past ABA president Robert MacCrate (often misspelled in the literature as McCrate). The Task Force was charged with making recommendations to help bridge the gap between legal education and the needs of the legal profession.

The MacCrate Report called for a number of improvements in delivering legal education to help better prepare lawyers for practice. Of particular note is the call for all law schools to conduct an audit on their current training programs, to move away from the case method, and to include more practical, hands-on training that is usually obtained
during full-time employment after graduating from law school (American Bar Association, 1992).

Since the Task Force recommended sweeping changes to the traditional Harvard-style case method of legal instruction and training, it should not be a surprise that the MacCrate Report has been met with significant resistance. Only sixty-seven law school deans responded to the MacCrate survey. At the time of the MacCrate Report in 1992, the ABA accredited one hundred and seventy-five law schools, which meant that the MacCrate task force could only boast a 38% response rate.

Additionally, an astonishing 73% of the MacCrate survey respondents indicated that the task force’s findings should be used as a “stimulus for institutional self-study” (Edwards, 2006, p. 163), which essentially meant that drastic reform was dead before arrival of the task force report. In 1983, Harvard president and former Dean of Harvard Law Derek Bok decried the state of legal education, but failed to offer more than high aims for reform, including focusing more on negotiating and less on litigation (Bok, 1983a, 1983b). It appears that as late as 1992, the voices were still loud stating legal education needed reform, but in the presence of the most significant call for reform since the Flexner Report, law schools were more than ready to turn a deaf ear to specific implications for improving legal education. This may be because during the latter part of the twentieth century, law schools had been implementing a series of new clinical programs designed to give students more practical, hands-on training (L. Gibbons, personal communication, September 22, 2011).

*The Carnegie Report.* The MacCrate Report directly influenced and motivated legislators and law school administrators to establish the establishment of several other
projects aimed at developing the state of legal education at the national (Stuckey, 2007) and the state level (Bahls & Nissl, 1998). However, the Carnegie Foundation’s second significant effort to improve the state of legal education has shown to be the most notable addition to the conversation in recent years. The Foundation’s 2007 report, *Educating Lawyers*, summarized both what law schools do well and where there is room for improvement. The team noted that law schools do an exceptional job in exposing students from all kinds of undergraduate backgrounds to the practice of law and training them to think like a lawyer, an “accomplishment of the first order that deserves serious consideration from educators of aspirants to other professional fields” (Sullivan, Colby, Wegner, Bond, & Shulman, 2007, p. 186).

The Carnegie team noted that law schools needs to improve in several areas and to take note of their shortcomings in others. They state that because law schools rely on the case method to “accomplish the socialization process to the legal profession” (Sullivan, Colby, Wegner, Bond, & Shulman, 2007, p. 188), law students are largely similar upon graduation, they are robotic in analyzing legal precedent, and are encouraged to analyze the law apart from common sense and moral judgment. Separating ethics from legal analysis, they conclude, is a natural part of the “thinking like a lawyer” mindset, which has implications for graduating lawyers into a field that already has ethical challenges. Lee Shulman, President of the Carnegie Foundation, noted that “the gap between learning to think like a lawyer and being capable of acting like a lawyer, both clinically and morally, is, if anything, greater than it’s ever been before” (Redden, 2007, p. 1). In addition, “assessment of student learning remains underdeveloped,” (Sullivan, Colby, Wegner, Bond, & Shulman, 2007, p. 188), and finally, but not
surprisingly, they observe that law schools approach change incrementally and not in a systemic and comprehensive manner. Essentially, the Carnegie Foundation team repeats many of the criticisms lobbed at law schools since Flexner presented his report near the early part of the twentieth century. Much like the Flexner and the MacCrate Reports, the Carnegie team advocated for a practitioner-focused legal education model that helps bridge academia and professional practice (Chemerinsky, 2008; Costonis, 1993). It does bear mentioning that many in the legal education community have called for increased attention on and resources for clinical legal education (Barnhizer, 1979; Chemerinsky, 2008; Garvey & Zinkin, 2009).

**Literature on Student Academic Success**

There is a large pre-existing literature base covering the factors that influence academic success. This section defines “student academic success” for the purposes of this dissertation and gives an overview of the literature on undergraduate and graduate and professional degree students.

**Defining Student Academic Success.** Student academic success is typically defined as a student’s grade point average. For the purposes of this dissertation, student academic success is defined as a law school student’s cumulative GPA through the second year of law school. Since the survey instrument for this dissertation was distributed to law school students in the fall term, cumulative GPA is defined as the cumulative GPA through the second academic year of study. Cumulative GPA is a clearly definable and well-accepted measure of academic success, as it is the most observable metric that reflects the student’s academic ability and effort.


Studies of Undergraduate Students. In his landmark study of dropouts at the undergraduate level, Tinto (1975) proposed that the more committed a student is to degree completion, the higher the chance the student will persist and graduate. A student’s commitment to the university, in turn, directly influences a student’s engagement with faculty, student organizations and other facets of the collegiate social system, which, as Astin has shown in his student involvement theory (1999), positively impacts a student’s grades and persistence. Later research testing Tinto’s model (Pascarella, 1980; Pascarella & Chapman, 1983; Pascarella & Terenzini, 1979) confirmed that the extent and quality of faculty interactions is directly associated with “educational aspirations, attitudes toward college, academic achievement, intellectual development, and retention” (Girves & Wemmereus, 1988, p. 164). Interestingly, high school GPA served as a strong predictor of retention during the freshman and sophomore years, but the influence of high school GPA dropped off significantly at the junior year, where socialization emerged as a stronger predictor of retention (Bean, 1985). Nevertheless, high school GPA and standardized test scores are consistently found to be significant predictors of college GPA (Pike & Saupe, 2002). Emotional and social factors (e.g. stress and frequency of alcohol consumption) also have been shown to be negative predictors of undergraduate GPA and retention (Pritchard & Wilson, 2003).

Financial aid (or lack thereof) is also a strong influence on a student’s enrollment and persistence in college. In St. John’s (2000) meta-analysis of the literature on financial aid’s impact on enrollment, numerous studies are cited to show that financial aid packages have a positive influence on student persistence. Some specific findings of interest are that grants have a larger positive impact on undergraduate student retention.
among minorities than white students (Chen & DesJardins, 2010; Hu & St. John, 2001), financial considerations accounted for more variance in undergraduate enrollment patterns than social and academic integration factors, and the presence of a financial aid award significantly enhances a student’s decisions to enroll and persist at the undergraduate level. Past models of persistence focused on institutional fit as the greatest predictor of persistence; however, as states have gradually reduced the amount of financial assistance to public universities, these models became obsolete as students became increasingly sensitive to pricing changes (St. John, 2000). Additional studies by Cabrera (1992, 1993) also found that a student’s perception of their ability to pay influenced their social activity patterns in college, which can have a “domino effect” on their academic persistence and performance. Not surprisingly, the cost perception challenge is more pronounced at private colleges than state-assisted colleges and universities. And as more students turn to loans to pay for college, due to decreases in government funding, a heavy debt load has a significant negative impact on a student’s chance to persist and graduate (St. John, 2000).

Studies of Graduate and Professional Students. Girves and Wemmerus (1988) built upon the existing research on undergraduate students to propose the first comprehensive theory of student retention and development for master’s degree students. They argued that a student’s involvement and interaction with advisers and faculty were critical to a student’s success and retention. Financial aid is another important facet of student retention, as a graduate assistantship would require a student to become more involved with faculty because the student would not need to work additional jobs to support themselves (in turn drawing the student away from the department). Strayhorn
(2005) confirmed this hypothesis by finding that undergraduate student loan debt levels were negatively associated with graduate student persistence. The availability of non-loan based financial aid (grants and assistantships) was positively associated with persistence and degree completion.

Further, Girves and Wemmerus found that student demographic characteristics and grades were the best predictors of student success and retention. Financial aid support and students’ perceptions of the faculty were not significant predictors of retention and graduate school GPA. The authors also showed that teaching assistantships are the most prevalent form of financial support in the arts and humanities; research assistantships are the most prevalent form of aid in the natural sciences; and graduate students in social science fields are more likely to rely on loans as their primary source of financial aid. In an interesting finding that supports the student involvement theory, students receiving teaching assistantships are more likely to graduate than students receiving fellowships as their primary source of financial aid (Hirt & Muffo, 1998). Bowen & Rudenstine (1992) also found similar results at the doctoral level, indicating that when students received teaching and research assistantships, they were more likely to graduate than students who received a fellowship as their primary source of financial aid because they have higher levels of involvement with faculty and advisers than fellowship recipients.

One of this dissertation’s research questions asked if LSAT and UGPA are factors that predict law school GPA. Testing the predictive power of undergraduate GPA and standardized test scores has been done in many other fields of professional education, including business, medicine, and pharmacy. Kuncel et al. (2005) found that students’ undergraduate pre-pharmacy GPA and results of the Pharmacy College Admission Test
was a moderate/strong predictor of graduate pharmacy GPA and pharmacy board examination results. Based on their findings, the authors suggest increasing the importance of PCAT scores in admissions decisions.

Similarly, the Medical College Admissions Test (MCAT) has been shown to be a strong predictor of both medical student academic performance in the first two years of medical school and results of the medical board exams given to all MD students after their second year of school (Jones & Thomae-Forgues, 1984). The predictive power of both undergraduate GPA and MCAT decreased from a student’s first year to the second year of medical school. Undergraduate GPA was a better predictor of grades than the MCAT in 52% of first-year medical school classes, but the MCAT results were a better predictor of student grades than undergraduate GPA in 55% of second-year medical school classes. Also of note is that, according to one study, the MCAT was a better predictor of medical licensing exam results than undergraduate GPA in 100% of the cases. While the sample size of 18 students is extremely limiting for the wide application of these results to the entire medical student population, these results should be kept in mind to compare with the predictive power of undergraduate GPA and LSAT scores on third-year law student GPA.

The Graduate Management Admission Test (GMAT) also has the same degree of predictive power as the MCAT. Sireci and Talento-Miller (2006) found that the combination of undergraduate GPA and GMAT scores accounted for 25% of the variance in GPA among first-year full-time MBA students, and the GMAT accounted for 16% of the variance above and beyond the variance explained by undergraduate GPA. When taken together, undergraduate GPA, GMAT-Verbal and GMAT-Quantitative scores
tripled the accounted-for-variance than undergraduate GPA alone. Clearly, UGPA and GMAT scores are good predictors in estimating first-year MBA student performance.

**Studies of Law Students.** Although the literature is sparse in the area of factors that influence law school academic success, several studies have been conducted and are reviewed in this section. Specific attention is devoted to the predictive power of undergraduate GPA and LSAT scores on law school GPA, along with the involvement variables that have been shown to be predictors of law school academic performance. Comments are also made on law school strategy books and the influence of the *U.S. News* rankings.

**Using Undergraduate GPA and LSAT to Predict Law School GPA.** Numerous studies have been conducted that looked at the predictive power of undergraduate GPA and LSAT scores on the academic performance of first-year law school students (Sheldon & Krieger, 2007). The majority of the literature shows that both LSAT and undergraduate GPA are relatively good predictors of a student’s academic performance in the first year of law school (Henderson, 2004) and in cumulative law school GPA (Wightman, 2000). For example, Linn and Hastings (1984) found that undergraduate GPA and LSAT scores accounted for an impressive 58.5% of the variance in law school GPA.

The literature generally shows that LSAT scores, taken alone, are a better predictor of law school GPA than undergraduate GPA alone in most studies. Early studies on the influence of LSAT and undergraduate GPA on law school GPA were limited to one law school or a very small sample size (Henderson, 2004), which limited the applicability of the results to the national population of law school students. With recent technological advances, more studies are looking at a national audience in
analyzing the relationship between undergraduate GPA and LSAT scores on law school GPA. However, since the vast majority of the studies in this area are focused on the relationship between UGPA and LSAT scores on first-year law school GPA, this dissertation added to the literature by presenting an empirical test of the relationship between these two input variables and cumulative LGPA of third-year law students. Essentially, this dissertation asked if the predictive validity of UGPA and the LSAT decreases, increases, or remains constant during the second year of law school. Previous studies of other professional fields have asked the same question to see if the power of predictor variables changes as a student progresses through their program (Jones & Thomae-Forgues, 1984).

Linda Wightman (2000) recently examined the predictive power of undergraduate GPA and LSAT scores on cumulative law school GPA. This is the only recent study that has been found that tested the relationship between UGPA and LSAT scores on cumulative law school GPA utilizing a national, multi-institutional dataset. Wightman found that UGPA and LSAT scores were good predictors of cumulative LGPA by both gender and minority status. LSAT scores and UGPA slightly over-predicted cumulative law school GPA, meaning that non-white students’ actual cumulative law school GPA was lower than expected. Wightman acknowledges that a significant portion of the variance in predicting cumulative law school GPA was unexplained in her study.

In addition to studying the predictive power of undergraduate GPA and LSAT on law school grades, researchers have studied the relationship between LSAT scores and passage rates on state bar examinations (Wightman, 1998; Yakowitz, 2010). The literature shows that bar passage rates and law school GPA do not differ significantly by
gender (Suto, Norton, & Reese, 2010; Wightman, 1998) or race (Norton, Suto, & Reese, 2009; Wightman, 1997), but LSAT scores do have a strong positive correlation with passage rates on the multi-state portion of the bar examination. Wightman also found (1997, 1998) that minority students who entered law school with lower UGPAs and LSAT scores than white students still performed exceptionally well on the state bar examination. She concludes by stating that this finding justifies a holistic application review process and the inclusion of minority status in crafting a law school class.

**Student Involvement’s Impact on Law School GPA.** Although there is a dearth of literature on the impact of student involvement on law school GPA (particularly using a multi-institutional research design), several studies are quite instructive in helping predict the results of the proposed dissertation. In his article on the effectiveness of study habits on law school GPA, Loftman (1975) noted previous research that found “students who do better than predicted by admissions criteria are more involved in law school, work longer hours, organize themselves better, and analyze materials on their own in order to learn to think like a lawyer more often than do their underachieving counterparts” (Loftman, 1975, p. 419). While Loftman notes this prior research does not give weights to these factors to help determine the relative importance of one factor over another, it does lend insight and credence to the applicability of the student involvement theory at the law school level. He goes on to argue that while his research shows students’ increased time on task in studying for exams pays off, it appears that certain students are naturally predisposed to performing well on law school exams, regardless of the amount of time engaged in studying. As Loftman (1975) states, “it seems grades reflect more what law students bring to law school than what they get there” (p. 448). If
this is true, then undergraduate GPA and LSAT should be the only factors that predict law school GPA.

Class attendance also appears to be a predictor of law school GPA. Gulati and others’ (2001) examination of third-year law students found a class attendance rate of near 50%, and of those students attending class on a regular basis, their cumulative GPA through the first two years of law school surpassed their peers who were not in class. Gulati also found interesting results that shed light on the amount of studying students do in the first and third year of law school. Given the drop-off in attendance rates, it is not a surprise that 60% of first-year law students reported studying more than 30 hours per week, and 66% of third-year law students study less than 20 hours per week. They also show that reduced class attendance was related to not being prepared for class. One final finding of interest is that 76% of students surveyed reported going to faculty office hours no more than once or twice during their third-year of law school. Clearly, law students by and large become disengaged with the law school environment as they progress through law school, and it is interesting to see if increased amounts of engagement with faculty and the law school environment translates into higher law school GPA.

Sheldon and Krieger (2007) tested the self-determination theory on law students and found that a student’s perception of their autonomy was significantly related to their GPA in the third year of law school, as well as performance on the Multistate Bar Examination. Research has consistently reported a high correlation between frequent and detailed feedback and student learning (Bain, 2004), but as one scholar noted, law schools do very little of this kind of student engagement (Aizen, 2004).
Christensen (2007) found law students who relied on undergraduate study strategies underperformed in law school compared to students who developed different study strategies to help master a new way of thinking. She also concluded that the way a student reads cases was a better determining factor of LGPA than UGPA or LSAT scores. Christensen also found (2009) that students who had a high LSAT score were also more likely to possess a “mastery goal orientation,” which is a predisposition to learning for the love of learning. She argues that LGPA was highest among students who had a mastery goal orientation. Although Christensen’s studies are extremely limited due to a small sample, her findings give sufficient cause to investigate the relation between legal writing skills, legal writing classes, and cumulative law school GPA.

**Popularized Law School Success Strategies.** Prospective and current JD students do not have to go far to find advice on how to succeed in law school. Such books carry titles such as “how to succeed in law school,” “acing your first year of law school,” and “starting off right in law school” (Canada, Cheatham, & Licata, 1978). Journal articles written by law school professors and deans also dish out advice to students, even though they do put their own disclaimer that the advice is not appropriate for all students (Schwartz, 1981). Even Karl Llewellyn’s *Bramble Bush* (1930), a classic primer on life in law school, is another example of advice from a wise elder who has successfully navigated the waters of law school.

These books and articles do provide some nuggets of truth and do not necessarily provide incorrect information. However, the vast majority of books in this area are nothing more than one person’s opinions based on personal experience. Since popularized law school success books and advice-laden articles are not based on
empirical, multi-institutional research, their recommendations must be taken with great scrutiny. These works, along with movies such as *The Paper Chase* and *1L* are worth mentioning because they are so popular with prospective and current law school students. In the absence of first-hand experience, it is not surprising that students turn to these works for advice on how to review class material, take tests, and think like a lawyer.

**The Law School Environment.** Many scholars, along with most law school faculty and students, acknowledge that stress is a real and significant part of life for law school students (Floyd, 2010; Gibson, 2010; Gulati, Sander, & Sockloskie, 2001). Gibson (2010) argues that law student stress is a result of the loss of hope, passion, and purpose; a life without balance; and law school becoming the core of a student’s identity. He proposes that law students can reduce their stress by maintaining a balanced life; dealing with stress in a productive way; and holding on to their identity and passion. Gibson also acknowledges that many lawyers and law students revolve their lives around sex, alcohol, and drugs, all of which can contribute to depression and poor academic performance. He states that “law students might not have a choice in the stressors they encounter, but they can choose their response to the stress” (Gibson, 2010, p. 145). However, not everyone shares in the view that proactive steps should be taken to promote a healthy balance in law school. In fact, some law school faculty and administrators are rather hostile to the discussion of helping students create a balance between school and life. One dean recently wrote that conversations on balancing law school and life sounded too much like “new age” advice, and students would be better off if they just appreciated family, friends and the great things in life (Raful, 2010). There is some empirical evidence for the view that stress among law school students is not too much of an issue, shown by Gulati’s
finding that only 5% of third-year law students would not go to law school if they had to make the decision over again. Eighty-six percent of third-years reported being either very satisfied or fairly satisfied with the law school experience. Fifty-eight percent of first-year law students reported feeling depressed most of the time or during a few passing periods, but that rate dropped to 36% among third-year law students. The results are mixed in the light of 80% of first- and third-year law students reporting law school to be extremely stressful or fairly stressful.

This debate over the role of law schools in helping students cope with stress in and outside of the classroom has two camps, and although the majority view is swinging to the pro-intervention side, there is virtually no empirical data to support the view that high levels of stress are directly related to academic performance. This dissertation helped inform this debate over whether stress is a factor that influences cumulative GPA of law school students. Specifically, this dissertation tested what effect, if any, law schools’ emphasis on supporting students cope with non-academic responsibilities has on cumulative law school GPA in the third year of law school.

Students often see law school as a competition and a game. Cooperation and teamwork is often absent from the law school environment. Gulati (2001) shows some rather dismal statistics that support this claim: among third-year law students, 26% feel that their law school is unnecessarily competitive; 36% feel that the law school wants them to succeed; and only slightly more than half report that their instructors treat them with respect. Students’ perceptions on the respect and competition questions became more negative from the first to the third year, and third-year students report finding hostility among racial and political lines nearly twice as often as first-year students,
perhaps because the material covered in class is more controversial than the entry-level required classes such as Contracts, Torts, and Constitutional Law.

The law school environment can be hostile, because students are competing for the spoils (law review membership, summer internships, and full-time employment with highly regarded law firms) that are associated with being at the top of the class GPA rankings (Floyd, 2010). Based on this description of the law school environment, collegiality among law school classmates (especially in group exam preparation) is only to help individuals do better on final exams, not in a goodwill gesture to help other students succeed. While good-natured students may truly care about fellow students’ performance, it cannot be ignored that for the most part, other successful students are seen as competition for internships, full-time jobs, and prestigious positions on the law review. It should not be too much of a surprise, then, to find that most students do not place a high value on study groups, especially when research indicates first-year law students’ grades are higher when they participate in study groups throughout the entire first year of law school (Evensen, 2006). It would make sense from a self-preservation point of view that if a law school student would feel very self-confident going into a final exam, they would not want to help other students because they may in turn help create competition for internships and law review positions. Gulati and others (2001) also found that participation in study groups dropped significantly as students progressed through law school. Seventy percent of first-year students participated in a study group but only 17% of third-year students joined a group.

**Impact of U.S. News & World Report Rankings on Law Schools.** The *U.S. News & World Report* annual rankings of undergraduate, graduate, and professional degree
programs has become a serious point of contention among schools and faculty since the rankings’ inception. But as much as faculty and administrators complain about the flaws in *U.S News*’ methodology, students still look to the rankings for guidance on which schools to apply to and attend.

In short, the *U.S. News* rankings are heavily based on input measures such as undergraduate GPA, acceptance rate, and LSAT scores. Output measures including employment rates upon graduation and nine months after graduation and bar passage rates are also factors. The lion’s share (forty percent) of the law school rankings come from quality assessments reported by law schools (e.g. Harvard giving their opinion on the quality of Yale, Notre Dame and Michigan’s law schools), and legal professionals, including selected judges and state attorney generals.

Recent research has empirically shown that the *U.S. News* rankings have had an impact on law schools and their students, which is consistent with other studies investigating the impact of the *U.S. News* rankings on MBA programs’ admission policies and practices (Fogerty, 2008; Sauder & Espeland, 2007). Criticisms of the rankings usually center around three points: the rankings define academic success using inappropriate metrics; the methodology is flawed and unscientific; and consumers (usually prospective students) place too much reliance on the rankings (Thomas, 2003). Several authors (Morriss and Henderson, 2007; Sauder & Espeland, 2007) found that in a suspected attempt to “game” the law school rankings, lower-ranked law schools had increased their first-year student attrition rates over a ten-year period, perhaps in an attempt to “weed out” the lower performers and eventually increase bar passage rates. Law schools have also redistributed scholarship resources to students with higher
undergraduate GPA and LSAT scores in an attempt to positively impact a school’s rankings statistics.

Morriss and Henderson (2007) also found that reported post-graduation employment rates also significantly increased among all tiers during the 1997-2006 time frame. The authors argue that this shows evidence of schools attempting to increase their rankings. Not surprisingly, the authors found that LSAT scores and *U.S. News* reputation scores were strongly correlated with placement rates. Although *U.S. News* critics are in the majority, it is worth noting that several law school administrators feel the national rankings serve as a motivator for law schools to step up efforts to improve their reputations (Morrissey, 2006).

**Socialization Theory**

Socialization theory deserves a mention as it can partially explain how, why or why not, and to what extent law students get involved. Chris Golde (2000) has recently extended the principles of organizational socialization theory to help explain doctoral student involvement. Golde states in her paper that the purpose of doctoral education is to help socialize students into the roles of graduate student and, eventually, a member of their respective professional group (researcher, teacher, etc.). In preparing students for their new roles as student and a professional, the department, college, and personnel all convey norms, practices, attitudes, and rules for professional practice. She argues that the primary reason doctoral students leave Ph.D. programs are that they are not involved in their department. According to Golde, a student is much more likely not to be involved if they have not been socialized to the norms and practices of their discipline and department. Additional studies of doctoral students (Golde, 2001) indicate many Ph.D.
students report their program did not fill their professional and educational needs, and these doctoral students did not know how to navigate the expectations of doctoral-level education. The state of modern doctoral education is described as being “a three-way mismatch between student goals, training, and careers” (Golde and Dore, 2001, p. 8).

This dissertation examined what influence, if any, student involvement has on cumulative law school GPA. Involvement theory posits that higher levels of involvement are generally associated with a positive result on an outcome of interest such as GPA, but the degree to which students get involved may in part depend on how the school values involvement both in and out of the classroom. For example, one school may place a high value on involvement in non-academic activities, but another school may not actively encourage students to get involved. Whether it is intentional or unintentional, positive or negative, law schools socialize students into their community through cultural norms, practices, and attitudes. Thus, the degree to which a student gets involved is in part a result of the socialization process into the law school community, which has been shown in previous studies of graduate students (Gardner & Barnes, 2007) to be an integral part of preparation for a professional career.

**Student Involvement Theory**

This dissertation tested the influence of student involvement on cumulative law school GPA. Along that line, Astin’s theory of student involvement serves as the theoretical framework. Involvement theory (Astin, 1984; 1999) posits that the more involved students are with the undergraduate experience, the higher chance they will persist towards graduation. Astin argues that while student characteristics (inputs) are useful in predicting the outcomes of students (e.g. college GPA, retention), the activities
a student participates in while in college (environmental factors) are also important in
shaping the outcomes of a student’s college career. Put another way, “success in college
has less to do with students’ precollege characteristics than with the nature and quality of

To date, only a very limited amount of research (Gore, 2009) has applied Astin’s
student involvement theory to the first-professional degree level to determine what
influence, if any, specific input and environmental factors have on a student’s persistence
or academic success. No research has been found that has empirically applied the student
involvement theory to JD students to assess the environmental effects of the law school
experience on students’ educational performance. Testing Astin’s theory on the law
school student population is a significant contribution to the literature on understanding
the factors that influence law students’ academic success.

**I-E-O Model**

A modified version of Astin’s I-E-O model (1991) serves as the conceptual and
data analysis framework for this dissertation. The model shows what influence, if any,
input variables and environmental effects have on an outcome variable of importance to
the researcher. The I-E-O model was originally conceptualized to show the effects of
college on undergraduate students, and this dissertation looked at the effects of the law
school environment. Because of the change in the population of interest, the conceptual
model was modified for the purposes of the dissertation, with modifications occurring at
all three points of the model (inputs, environmental variables, and outcome).

In looking at the effects of the undergraduate experience on students, Astin
utilized high school GPA and SAT/ACT scores, among other factors, as input variables.
These variables were controlled in the data analysis to find what effects, if any, were significant in predicting students’ persistence in college. This dissertation also controlled for several input variables, which included pre-law school characteristics such as undergraduate GPA, LSAT scores, and the number of years elapsed between completion of an undergraduate degree and enrollment in law school. This dissertation differs greatly from Astin’s original work in the number of input variables. Astin designed his study to control for many input variables, but the LSSSE survey instrument was designed to collect self-reported information on only two cognitive input variables: undergraduate GPA and LSAT scores. The other major departure from the original I-E-O model is that Astin’s inputs were pre-college characteristics. This dissertation utilized student characteristics prior to entering law school, as the effects of the law school environment on the student needed to be tested, and as a result, any inputs prior to law school needed to be controlled.

Astin’s work tested the effects of student involvement and if certain involvement activities were significant predictors of retention and persistence through an undergraduate program of study. Through the LSSSE survey, this dissertation utilized many of the same environmental variables that Astin utilized at the undergraduate level.

This dissertation’s outcome of interest was self-reported cumulative law school GPA among third-year law students, which does differ from Astin’s focus on retention and persistence, but the I-E-O model has been used in other higher education contexts to study graduate student and faculty involvement (Barger, 2010; Gore, 2009).
Summary

The state of modern American legal education is a product of centuries-old traditions and customs. In this chapter, a history of American legal education was offered, showing that Langdell’s case method and the Socratic method of teaching shaped modern legal education. Both innovations originated at Harvard Law School, which helped catapult Harvard Law into the preeminent echelon of American law schools. The casebook method, “thinking like a lawyer” and the Socratic method were implemented in nearly all U.S. law schools because they were seen as advances in teaching the law and because the new methods helped law schools curtail costs and allow for larger classes of students. In recent memory, several attempts to refocus legal education towards a practitioner-focused model have been met with mixed reactions. Legal scholars and administrators recognize there is a dramatic need for reform, but are for the most part extremely resistant to change the current and prevalent model of legal education. The Carnegie and MacCrate reports have initiated long-overdue conversations about the practicality and theoretical aspects of legal education, but for the most part, significant change has not occurred.

An overview of the literature on student development and the factors that predict GPA at the undergraduate and graduate/professional levels was also reviewed. The literature review shows a lack of multi-institutional, empirical research that has investigated the factors that influence and predict law school GPA. Astin’s I-E-O model was also discussed and how it is an appropriate model for investigating and analyzing what influence, if any, predictor variables have on law school GPA. Although Astin’s model was designed to study the influence and impact of the undergraduate environment
on retention and persistence, the model has been used to analyze the environmental effects of school on graduate and professional students (Gore, 2009) and faculty satisfaction (Barger, 2010). As such, Astin’s model has shown to have applicability to other facets of higher education scholarship.

Chapter Three discusses the methodology for the dissertation, including the survey instrument, data collection procedures, assumptions and limitations, among other factors. Chapter Four discusses the results, and Chapter Five offers recommendations for further study and professional practice.
Chapter Three
Methodology

Introduction

This chapter reviews the methods used in this examination of the factors that influence cumulative law school GPA. The sections in this chapter include the theoretical framework, data analysis framework, population and sample of interest, data collection procedures and survey instrument, data analysis procedures, assumptions, limitations, and a summary. This dissertation utilized data collected through the annual Law School Survey of Student Engagement (LSSSE) in order to gain insight into the activities of law school students and whether their involvement impacts law school GPA. The LSSSE is a project run by the Indiana University Center for Postsecondary Research (IUCPR), which also supervises the well-known National Survey of Student Engagement (NSSE). LSSSE survey data were organized into blocks for the purpose of testing the student involvement theory using Astin’s I-E-O conceptual framework.

Theoretical Framework

Astin’s student involvement theory (1984, 1999) was the theoretical framework used in this dissertation. As previously mentioned in Chapter Two, involvement theory is concerned with the amount of time and physical and psychological energy a student puts into the college experience. Involvement theory posits that the more involved students are with the undergraduate experience, the higher the chance that they will persist towards
graduation and develop their talents. Astin argues in the student involvement theory that while student characteristics (inputs) are useful in predicting the outcomes of students (e.g. college GPA, retention), the activities in which a student participates while in college (environmental factors) are also important in shaping the outcomes of a student’s college career. The student involvement theory measures the effects of college and student involvement on cognitive and affective outcomes of interest (Astin, 1991), which, for the purpose of this dissertation, is cumulative law school GPA.

**Data Analysis Framework**

The data analysis framework for this dissertation is a modified version of Astin’s (1991) I-E-O model. The I-E-O model separates inputs and environmental factors into separate blocks. Student inputs for this dissertation include factors such as gender, transfer student status, undergraduate GPA, and LSAT scores, among others. Astin defines inputs as “fixed or invariant characteristics…and characteristics that can change over time” (Astin, 1991, p. 70). In his landmark study of undergraduate students, Astin (1993) organized any pre-college independent variable into the input block. For the purpose of this dissertation, an input is any cognitive or social variable that a student brings with them prior to initial enrollment in law school.

Environmental variables include any factor external to the student, including characteristics of the institutional environment (between-college characteristics) and the student’s involvement with faculty, other students, and the amount of energy a student exerts in academic activities (within-college characteristics). Astin (1991) also introduced the concept of intermediate educational outcomes, referring to students’ attitudes and beliefs about life inside and outside of the college experience. Astin included these
variables in the environmental block, but separate from other environmental variables, as these attitudes and beliefs may or may not be influenced by other environmental variables or involvements. For example, suppose there are two JD students attending the same law school. The first student has a high law school GPA, and the second student has a low GPA. Contrary to conventional wisdom, suppose the student with the high GPA is highly unsatisfied with the law school experience, but the student with a low GPA is highly satisfied with the law school experience. Both students’ satisfaction with their law school experience could be due to negative or positive relationships with faculty and other students, involvement (or lack thereof) in student activities, or because of stress outside of the classroom. Thus, the student satisfaction variable could be influenced by other environmental variables, including student involvement.

It is worth noting that, depending on the study, variables included in the intermediate educational outcome block could be outcome variables in their own right. For example, other researchers may want to test to see what effect, if any, law school involvement has on satisfaction with the law school experience. Astin (1993) utilized satisfaction as an outcome of interest with undergraduate students, and as such, an examination assessing what factors, if any, influence law school student satisfaction could be another direction for future research.

In terms of a temporal sequence of events in the law school experience, the relationship between intermediate educational outcomes and the outcome could be the inverse of the I-E-O model. Suppose a student has a low law school GPA. The conceptual model presented for data analysis in this dissertation suggests that low levels of student involvement in law school is the cause of low law school GPA. But perhaps the actual
sequence of events is in reverse: a student may perform poorly on their first semester exams, and due to being disenfranchised with the law school experience, the student decides to spurn all offers to go to office hours or work in a legal clinic (all involvement measures). The opposite reaction from the student may be true as well. A student who does poorly on their first semester exams may use the poor performance as a motivator to do better in the classroom, and as such, the student may actively seek out additional opportunities to do better on their exams. In this example, low law school GPA resulted in higher levels of involvement. It is impossible to ascertain the actual temporal sequence of events for every student included in this dissertation, which limits the application of the findings to the population of interest.

Prior studies (Gore, 2009) have utilized intermediate educational outcomes in their studies of involvement at the professional degree level, and, because these variables can be influenced by other environmental factors, they are inserted into the regression analysis as the last block in the larger section of environmental blocks. This dissertation utilized the same approach and inserted intermediate educational outcomes into the statistical analysis immediately before assessing what influence, if any, these environmental variables have on cumulative law school GPA in the third year.

Outputs are defined as the desired educational outcome. In this dissertation, the output of interest was cumulative law school GPA of third-year, full-time JD students.

**Population and Sample of Interest**

The population of interest in this dissertation is third-year, full-time JD students attending an ABA-accredited law school in the United States. This dissertation’s sample comes from any third-year law school student attending a law school in the United States.
that contracted with the IUCPR to administer the LSSSE survey to their students. According to the LSSSE website, law schools must pay IUCPR a fee in order to administer the LSSSE to their students. The fee is dependent on the size of the law school’s student body (Law School Survey for Student Engagement, n.d.b.). Since not every law school in the U.S. paid IUCPR to administer the survey to their students, the sample of interest in this dissertation is third-year law students attending a law school in the United States that paid the survey administration fee to IUCPR. Since the IUCPR only makes data that is more than two years old available to researchers, the sample are third-year law students attending a U.S. law school that paid the survey administration fee to IUCPR in 2008.

**Data Collection Procedures and Survey Instrument**

Data of interest in this dissertation was gathered through a web-delivered survey. Law schools that paid the LSSSE administration fee to the IUCPR were instructed to give student information (emails, names and several input variables of interest) to the LSSSE staff. After receiving the students’ contact information, the LSSSE staff emailed the school’s student population and asked them to complete the survey. According to the LSSSE website, “Invitations and follow-up reminders are issued to students via email, and we collect the data electronically. Students will receive no more than five contacts from us. Once a student has completed the survey, or declined to participate, we send no further contacts. The survey takes students about fifteen minutes to complete” (Law School Survey of Student Engagement, 2010b).

The researcher purchased survey results from the LSSSE office for analysis in this dissertation. The LSSSE staff only allows researchers to purchase data that are three or
more years old and only shares 30% of the total survey responses. The 2008 LSSSE survey administration garnered approximately 25,000 responses, which was associated with a 54% response rate (L. Watkins, personal communication, January 11, 2011). The IUCPR policy means that the researcher was able to purchase a total of approximately 7,500 survey responses from the 25,000 total responses. IUCPR agreed to make approximately 29% of the purchased sample responses from third-year law students, meaning the dissertation utilized approximately 2,175 survey responses for regression analysis (L. Watkins, personal communication, January 27, 2011). The actual number of cases utilized was reduced because the survey respondent had an invalid/missing response on key questions (e.g. undergraduate GPA, LSAT, gender, LGPA, etc.).

The Law School Survey of Student Engagement was piloted in the spring of 2003 at eleven law schools, where more than 4,300 students completed the survey to test for validity and reliability. Schools that participated in the pilot survey included Brigham Young University, District of Columbia, Duke, Florida, Fordham, Indiana-Bloomington, Minnesota, New York Law, UNC-Chapel Hill, William & Mary, and Wisconsin. The LSSE staff utilized student focus groups to refine the survey questions to better reflect the law school environment. The pilot-study participants reported finding the survey instrument questions clear and easy to understand. The LSSSE staff and advisory board (comprised of several law school deans and other legal education experts) ensured the content validity of the survey by consulting deans of law schools across the country (Barger, 2004; O’Day & Kuh, 2006).

This dissertation utilized third-year law student responses to the LSSSE survey in determining what factors, if any, are significant predictors of law school GPA. Since the
vast majority of full-time JD programs are three years in length, analyzing students’ GPAs in the third year of law school is the best time to assess a student’s GPA and the activities they participated in while in law school. By the third year of law school, students have had time to adjust to the law school environment, and to take part in activities such as the law review, which are typically reserved for second-year (2L) and third-year (3L) students. In addition, lumping in first-year (1L) and 2L law students’ GPAs with the 3L students’ GPAs will likely cause noise in interpreting and reporting findings.

The predictor variables were grouped in the following blocks in the data analysis procedure: inputs, student-student interaction, student-faculty interaction, academic involvement, non-academic involvement, and intermediate educational outcomes. Data produced from several questions on the LSSSE survey were omitted from data analysis because these variables were not pertinent to a student’s academic performance in law school, or, in the case of input variables, they were already controlled for in selecting the sample (e.g. 3Ls).

Several studies by Wightman (1998, 2000) have previously studied the relationship between undergraduate GPA and LSAT scores with cumulative law school GPA, and other researchers have previously studied the relationship of UGPA and LSAT scores with law school GPA in the first year of law school. Wightman’s studies have found that more than half of the variance in law school GPA is explained by UGPA and LSAT scores, which make these inputs critically important in this dissertation to see if the same results can be replicated with a national, multi-institutional study. Hirt & Muffo (1998) examined the relationship between financial assistance in graduate school and student persistence and found that the type and amount of financial aid was related to
graduate student persistence and performance, confirming prior research findings from Girves and Wemmerus (1988). As such, expected student loan debt upon graduation was included in this dissertation to examine what effect, if any, this variable has on LGPA.

Two blocks (student-student interaction and faculty-student interaction) were utilized to analyze what effect, if any, these involvement variables have on law school GPA. These environmental variables are tied to student involvement with their peers and with their instructors, and as such, they should be included in this dissertation. While an argument could be made to lump these variables together with the academic involvement (faculty-student interaction) and non-academic involvement blocks (student-student interaction), the involvement blocks refers to specific activities that the student actively or passively engages in, but the interaction blocks refer to activities that characterize the amount of time and the quality of the interaction between peers and faculty. These variables are different enough to warrant separate blocks, and precedent for this decision is shown from multiple authors as their findings indicate a relationship between the quality and frequency of involvement with peers and faculty in retention (Astin, 1993; Gore, 2009; Opp, 2002).

Academic involvement variables assess the degree to which a student engages with faculty and the academic environment. Examples of the variables included in this block include the number of hours spent preparing for class, if they have or plan to participate in academic-focused student organizations, or if they have participated in or plan to engage in pro bono legal work. Numerous researchers have previously studied the relationship of student involvement and time-on-task with law school academic performance (Gulati, Sanders, & Sockloskie, 2001; Loftman, 1975; Sheldon & Krieger,
2007), and as such, precedent exists for including these variables in an examination of their influence on cumulative law school GPA.

Non-academic involvement variables refer to the time that a student spends on activities that are not academically focused. Astin (1993) included similar variables in his study of undergraduate student persistence.

Astin’s study of student involvement (1993) utilized satisfaction measures to gauge whether the student’s impression and satisfaction with the collegiate experience mattered when predicting college retention and persistence. This dissertation examines whether satisfaction with the law school experience is a significant predictors of law school GPA. Campus climate has also been shown in prior studies of undergraduate and graduate students to be a significant predictor of retention and persistence (Hurt & Muffo, 1998). The LSSSE survey asked several questions to assess the law school climate, specifically the collegiality and cooperative nature of the law school faculty, students and administration with each other. Chapter Two also noted the work of Alexander Astin and his student involvement theory, along with prior studies examining the relationship between student involvement, spirituality and undergraduate student persistence. The influence of these variables was tested to determine what influence, if any, they had on cumulative law school GPA.

In this dissertation, a law student’s self-reported cumulative law school GPA is the outcome of interest. All of the involvement and engagement predictor variables were analyzed to determine what effect they had on a student’s law school GPA. Figure 3 below shows the blocking design. Appendix A lists the predictor variables tested in this dissertation, and the assignment of variables to the specific blocks.
Data Analysis Procedures

The LSSSE survey responses were analyzed in SPSS using a blocked form of stepwise linear multiple regression, specifically the causal analytical modeling via blocked regression analysis (CAMBRA) method used by Astin in numerous studies of student involvement (Astin, 1993, 2005; Astin & Dey, 2001; Astin, Sax & Avalos, 1999).

In an article on the effect of volunteerism during the undergraduate years, Astin, Linda Sax and Juan Avalos (1999) describe the CAMBRA process and its advantages:

The basic approach in CAMBRA is to view each step (or block) in stepwise regression as a new model, differentiated from the model defined by the previous step (or block) by the newly added variable (or block of variables). The power of CAMBRA resides in its ability to demonstrate how the addition of a new variable (or block of variables) affects the relationship between every other variable--both in and out of the model--and the dependent variable. Identifying changes in the "effect" of variables that are not part of the variables currently defining the model is possible because of a novel feature of SPSS regression that computes the "beta in"
for each such variable. "Beta in" shows what the standardized regression coefficient for a non-entered variable would be if it were the one entered on the \textit{next step}. By following step-by-step changes in betas (for variables in the model) and "beta ins" (for variables not yet in the model), the investigator can get a comprehensive picture of how multi-collinearity is affecting the entire data set.

CAMBRA also allows the investigator to conduct a series of path analyses by observing how the coefficients for variables already entered are changed when later variables are entered. When an entering variable significantly diminishes the coefficient for an earlier variable, an "indirect" path has been identified. When an earlier variable's coefficient remains significant through the final step, a "direct" path has been identified. The unique situation that occurs when an entering variable \textit{strengthens} the coefficient for an earlier variable (a condition not covered in most writings on path analysis) is called a "suppressor effect" (i.e., the entering variable has been "suppressing" the observed effect of the earlier variable on the dependent variable). (pp. 193-194).

Through the CAMBRA method, SPSS is able to produce results showing how the input variables influence both the environmental variables and the criterion variable (cumulative law school GPA), and how the environmental variables influence the criterion variable. Thus, an underlying concept of the I-E-O model and the CAMBRA method is the interpretation of mediating variables (environmental block). Instead of falsely interpreting a direct causal relationship between inputs and outcomes, this method clarifies what relationship, if any, exists between predictor variables and the criterion variable.

\textbf{Assumptions}

This dissertation utilized 30\% of the total number of 2008 LSSSE survey responses, so the researcher assumes that the omitted data would not produce significant changes in reported results. In addition, in analyzing approximately 2,175 cases, the researcher assumes that the survey results are representative of the entire law student population, both at law schools participating and not participating in the LSSSE survey. It
is feasible that a large proportion of the third-year student survey responses came from law students that are similar in nature (e.g. attending a school in the same geographic region, attending schools that are very selective). Along the same line, the researcher assumes that non-respondents will not significantly differ from survey respondents. It is worth remembering that the LSSSE survey is built upon the same framework as the National Survey of Student Engagement (NSSE). The NSSE staff completed a follow-up phone interview with NSSE survey non-respondents and found that the survey non-responders were more engaged than the students who completed the survey. This finding goes against conventional wisdom and prior research that has found students responding to surveys are generally more involved with the campus experience. Although the LSSSE staff has not conducted such a study to crosscheck survey responders against non-responders, similar results should be expected from the LSSSE survey instrument (Law School Survey of Student Engagement, n.d.a.).

It is also unknown to the researcher how many of the 25,000 LSSSE responses in 2008 came from third-year law students because this information is not shared by IUCPR. The researcher may come to find that the number of third-year students completing the LSSSE survey is small, thus leading to a lack of applicability of the findings to third-year law students across the United States.

The researcher also assumes that students responding to the LSSSE survey are giving accurate and complete information. As with any survey-based research, respondents could fabricate or omit information for a variety of reasons (e.g. forgetting information, ashamed to admit low GPA), and this inflated, deflated, or omitted information could skew the results.
Limitations

While 2,175 survey responses is enough to conduct a regression analysis to assess the effects of student involvement on law school GPA, the results are not applicable to the entire population of law school students in the United States. Important changes in results may occur if every 3L survey response was included for data analysis.

The I-E-O model also has a limitation with regard to intermediate educational outcomes and the matter of temporal sequencing of events in law school. It is impossible in a national, multi-institutional study to assess exactly when certain involvement activities occur between schools. In addition, when Astin (1991) introduced the concept of intermediate educational outcomes, he acknowledged the lack of concrete certainty in how to block variables such as student satisfaction and change in attitudes and beliefs, especially in making conclusions in how these variables were related to an outcome of interest. Because of the lack of certainty in how and when these attitudes and beliefs changed, they were entered last into the blocking design because the blocked multiple regression analysis should follow a temporal sequence as much as possible.

Summary

This chapter provided an overview of the methods to be used in this dissertation studying what factors, if any, influence cumulative law school GPA among third-year law students. The sections that were included in this chapter included the theoretical framework, data analysis framework, population and sample of interest, data collection procedures and survey instrument, data analysis procedures, assumptions, and limitations.

The will utilizes results from the Law School Survey of Student Engagement (LSSSE), a project run by the staff of the Indiana University Center for Postsecondary
Research (IUCPR), which also conducts the highly successful and reliable National Survey of Student Engagement (NSSE). The LSSSE has been found to be an instrument with a high degree of reliability and validity, which makes it an appropriate instrument to measure law school students’ activities and involvement. After data collection, the predictor variables were organized into blocks mirroring Astin’s (1993) study of undergraduate student involvement. Data was analyzed using the CAMBRA method of entering blocks of data into a stepwise linear multiple regression (Astin & Dey, 2001; Astin, Sax & Avalos, 1999).

Results of the dissertation are analyzed in Chapter Four, and recommendations for further study, policy improvement, and implications for professional practice are offered in Chapter Five.
Chapter Four

Analysis of Data

Introduction

Previous studies of law students have mostly focused on the predictive power of undergraduate GPA and LSAT results on law school GPA in the first year of the three-year JD program. This dissertation is the first known study to examine what impact, if any, student involvement (along with undergraduate GPA and LSAT scores) had on cumulative law school GPA among third-year law students in the United States.

Following the research design discussed in Chapter Three, a total of 102 predictor variables were used in the analysis process. These predictor variables were organized into seven blocks, including 1) input measures, 2) between-college characteristics, 3) student-student interaction, 4) faculty-student interaction, 5) academic involvement, 6) non-academic involvement, and 7) intermediate educational outcomes. The blocks were entered into the regression equation in the order presented above.

This chapter makes a detailed presentation of the results of regression analysis. Relevant descriptive statistics will then be presented to give the reader insight into the background of the sample used for this dissertation. The research questions will then be restated in order to provide continuity between Chapters Three and Four. Finally, and most importantly, the results of the regression analysis will be presented, showing the
significant predictors of cumulative law school GPA among third-year, full-time JD students in the United States.

**Characteristics of the Sample**

This dissertation’s population is any full-time, third-year student at an ABA-accredited U.S. law school completing the 2008 version of the Law School Survey of Student Engagement (LSSSE). Data sharing policies from the Indiana University Center for Postsecondary Research, which oversees the Law School Survey of Student Engagement, prevented the researcher from obtaining all of the responses from full-time, third-year law students.

The dataset from the Indiana University Center for Postsecondary Research contained 2,468 survey responses from 3Ls. After removing three hundred and twenty-two part-time student responses, 2,146 responses remained. At this point, any student response that did not contain a response to the gender, undergraduate GPA, LSAT, and “what have most of your grades been to this point in law school” questions were removed. With regard to the undergraduate GPA and LSAT questions, the decision to remove these cases instead of replacing missing responses with the mean was done to provide the clearest link between undergraduate GPA, LSAT scores, and cumulative LGPA. Any assumption of these critical input variables would have resulted in a diluting of the power of the survey responses. In addition, grading scales may differ from one undergraduate college to another (e.g. using +/- systems or a five-point scale). The missing cases could have possibly been replaced with the mean if all undergraduate colleges graded on the same schedule. On the matter of gender, replacing missing responses with the mean would essentially mean that students would have a mixed
gender; removing cases with missing gender responses is the most conservative approach to the data analysis. Finally, as this dissertation was concerned with the predictive power of inputs and involvement on law school GPA, the most conservative method was to remove any cases missing a response to the question providing criterion variable information.

Eighty-eight cases were removed for an “I prefer not to respond” response to the gender question, and sixteen cases were removed for missing responses to the gender question. Next, ninety-one cases were removed due to missing undergraduate GPA information. Third, forty-four cases were removed due to missing LSAT test score information. The dataset was examined for any invalid responses, including LSAT scores outside of the 120-180 range and an undergraduate GPA below 2.0. All of the cases that were removed from analysis were due to missing information on the survey questions. No cases were removed due to invalid information on undergraduate GPA and LSAT. Finally, one hundred and fifty-one cases were removed due to a non-response on the law school grades question. Thus, the final regression analysis utilized 1,756 full-time third-year JD students attending a law school in the United States. A total of three hundred and ninety cases were removed, representing eighteen percent of the total available survey responses from full-time third year law students.

The sample was evenly distributed among gender (fifty-two percent male, forty-eight percent female). The majority of respondents attended a law school with between five hundred and nine hundred students. Approximately seventy percent of the sample attends a public law school and thirty percent attends a private school. Seventy-four percent of the sample was white, twenty percent were minorities, and six percent did not
respond to the question. For the purposes of regression analysis, all non-white students were grouped together as minority students as many of the categories (American Indian, Black, Asian, etc.) did not have enough responses to allow for separate inclusion in the analysis. The responses were re-coded into an “are you white (yes/no)” for regression analysis, with non-white (0), and white (1). The missing cases (“prefer not to respond”) were replaced with the mean. This differs from the approach on the gender variable, as it is possible to have mixed ethnicity, but it is not possible for students to have a mixed gender. In addition, the survey instrument only allowed a student to select one race/ethnicity, not allowing students of mixed racial backgrounds to appropriately represent themselves when completing the 2008 LSSSE survey instrument. The researcher thus decided to not exclude cases that had missing responses or “prefer not to respond” answers to the race/ethnicity question.

Both the undergraduate GPA and LSAT scores for the sample followed a bell-shaped curve distribution. The mean LSAT score was approximately 157, and the mean undergraduate GPA was a 3.39. The range of self-reported LSAT scores was 137 to 180, while the LSAT is scored on a 120-180 scale (Law School Admission Council, 2011).

In summary, based on the descriptive statistics described above, the average student included for analysis is white (non-Hispanic), attends a public law school where the student body is between 500 and 900 students, has a 3.38 undergraduate GPA, a 157 LSAT, and most of their grades in law school are between a B and a B+. The average law school GPA was a 5.5 on a 1-8 scale, with 5=B, and 6=B+. 
Review of the Research Questions

Eight research questions were posed addressing the cumulative law school GPA (the criterion variable) among full-time, third-year JD students:

1. What influence, if any, do undergraduate GPA and LSAT scores have on the criterion variable?
2. What influence, if any, do input measures (excluding undergraduate GPA and LSAT scores) have on the criterion variable?
3. What influence, if any, do between-college characteristics have on the criterion variable?
4. What influence, if any, do student-student interaction variables have on the criterion variable?
5. What influence, if any, do student-faculty interaction variables have on the criterion variable?
6. What influence, if any, do academic involvement variables have on the criterion variable?
7. What influence, if any, do non-academic involvement variables have on the criterion variable?
8. What influence, if any, do intermediate educational outcomes have on the criterion variable?

Blocked Form of Stepwise Regression

A regression analysis was conducted to explain what influence, if any, input data, between-college characteristics, and involvement in law school had on cumulative law school GPA among third-year, full-time JD students in the United States. For the
purposes of this dissertation, cumulative law school GPA is defined as a third-year, full-time JD student’s response to the question “what have most of your grades been up to now at this law school?” on the 2008 version of the LSSSE.

The predictor variables (one hundred and one in total) were grouped into seven blocks and entered into SPSS utilizing the stepwise method. This method was utilized as it first tests to see if the entering predictor variable is a significant predictor of the criterion variable (cumulative law school GPA), and at the final step, whether it is still a significant predictor after all the other predictor variables are entered into SPSS. Predictor variables were allowed to enter the equation if they had a p-value less than .05, and they remained in the equation until they exceeded a p-value of .10. Successive rounds of regression were run until all variables tested for significance made it through the equation with p-values less than .05.

The enter method of stepwise regression was not utilized as it was necessary to see the contribution of each predictor variable to the regression equation; the enter method would have forced all the predictor variables into the equation at the same time, thus not allowing for any assessment of how the beta-weights and p-values for every predictor variable changed as new variables were inserted into the equation.

Both the backward and forward methods of stepwise regression were not utilized for similar reasons. The backward method starts with all predictor variables in the equation and individually tests them for significance; the forward method does almost the same thing, starting with no variables in the equation and tests each one individually for significance. The problem with these two approaches is the matter of collinearity. That is, perhaps a predictor variable would enter the equation, start out as significant, but after
additional variables are entered, this particular predictor variable would fall out of significance, and thus should not stay in the equation. Under the rules of the backward and forward methods, how predictor variables influence each other’s significance is not addressed. Thus, the stepwise method in SPSS is the most conservative method in that it continually tests variables until the final step to see if they are significant predictors of the criterion variable.

Table 1 lists the twenty-one (out of one hundred and two) predictor variables that were found to be significant predictors of cumulative law school GPA in the third year of law school among 1,756 students completing the 2008 version of the Law School Survey of Student Engagement. Table 1 presents the significant factors sorted by block, in order of the blocks entered into the regression equation (inputs first, then between-college characteristics, and so on). The step column indicates the step in which the predictor variable was entered into the regression equation (this was determined by SPSS). Step $\beta$ represents the beta weight of the factor when it was first entered into the regression equation. Beta weights for each variable at the final step are also included. The adjusted $R^2$ of the final step is .422, which indicates the composite model of the twenty-one predictors explained slightly more than forty-two percent of the variance in the criterion variable. Finally, each of these predictor variables was entered into the regression equation one by one. Scales were not utilized (e.g. Academic Involvement Scale) as the researcher is concerned with identifying specific individual predictor variables that are significant predictors of the criterion variable. If the predictor variables were grouped together in scales, it would not be possible to ascertain what aspect of academic involvement, for example, helped make that scale a significant predictor of the criterion.
variable. Likewise, there may be predictor variables within a scale that are significant predictors, but if the entire scale is not a significant predictor of the criterion variable, then this valuable information would be lost.

Table 1

*Significant Predictors of Cumulative Law School GPA*

<table>
<thead>
<tr>
<th>Predictor Variable</th>
<th>Block</th>
<th>Zero $r$</th>
<th>Step $\beta$</th>
<th>$F$</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSAT</td>
<td>Inputs</td>
<td>.39**</td>
<td>.39***</td>
<td>.25***</td>
</tr>
<tr>
<td>Undergraduate GPA</td>
<td>Inputs</td>
<td>.29**</td>
<td>.22***</td>
<td>.17***</td>
</tr>
<tr>
<td>Did you begin law school at your current institution or elsewhere? (here/elsewhere)</td>
<td>Inputs</td>
<td>-.08**</td>
<td>-.10***</td>
<td>-.09***</td>
</tr>
<tr>
<td>How much education debt from attending law school do you expect to have upon graduation?</td>
<td>Inputs</td>
<td>-.16**</td>
<td>-.09***</td>
<td>-.06***</td>
</tr>
<tr>
<td>Are you white (non-Hispanic)?</td>
<td>Inputs</td>
<td>.18**</td>
<td>.07**</td>
<td>.07***</td>
</tr>
<tr>
<td>Law school size</td>
<td>Between-College Characteristics</td>
<td>.06**</td>
<td>.09***</td>
<td>.09***</td>
</tr>
<tr>
<td>Worked on a legal research project with faculty (yes/no)</td>
<td>Faculty-Student Interaction</td>
<td>.19**</td>
<td>.16***</td>
<td>.06**</td>
</tr>
<tr>
<td>Law journal member (yes/no)</td>
<td>Academic Involvement</td>
<td>.47**</td>
<td>.35***</td>
<td>.31***</td>
</tr>
<tr>
<td>Come to class without completing readings or assignments (frequency)</td>
<td>Academic Involvement</td>
<td>-.14**</td>
<td>-.13***</td>
<td>-.09***</td>
</tr>
<tr>
<td>Activity</td>
<td>Involvement</td>
<td>R1</td>
<td>R2</td>
<td>R3</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>----------------------</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>Asked questions in a class or contributed to class discussions</td>
<td>Academic Involvement</td>
<td>.14**</td>
<td>.10***</td>
<td>.07***</td>
</tr>
<tr>
<td>(frequency)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moot court team (yes/no)</td>
<td>Academic Involvement</td>
<td>.13**</td>
<td>.09***</td>
<td>.07***</td>
</tr>
<tr>
<td>Prepared two or more drafts of a paper or assignment before turning it</td>
<td>Academic Involvement</td>
<td>.11**</td>
<td>.05*</td>
<td>.05*</td>
</tr>
<tr>
<td>in</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Working for pay in a non-legal job</td>
<td>Non-Academic Involvement</td>
<td>-.13**</td>
<td>-.08***</td>
<td>-.07***</td>
</tr>
<tr>
<td>Relaxing and socializing (watching TV, partying, exercising, etc.)</td>
<td>Student-Involvement</td>
<td>.05*</td>
<td>.06**</td>
<td>.05**</td>
</tr>
<tr>
<td>Participating in law-school sponsored activities (organizations, journal,</td>
<td>Student-Involvement</td>
<td>.22**</td>
<td>.05*</td>
<td>.04*</td>
</tr>
<tr>
<td>moot court, student bar association, etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job search help (satisfaction)</td>
<td>Intermediate</td>
<td>.14**</td>
<td>.08***</td>
<td>.07***</td>
</tr>
<tr>
<td>Educational Outcomes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contributed to: learning effectively on your own</td>
<td>Intermediate</td>
<td>.13**</td>
<td>.06**</td>
<td>.06**</td>
</tr>
<tr>
<td>Educational Outcomes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contributed to: developing legal research skills</td>
<td>Intermediate</td>
<td>.06*</td>
<td>-.05**</td>
<td>-.07***</td>
</tr>
<tr>
<td>Educational Outcomes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contributed to: acquiring job or work-related knowledge and skills</td>
<td>Intermediate</td>
<td>.16**</td>
<td>.06**</td>
<td>.05*</td>
</tr>
<tr>
<td>Educational Outcomes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
If you could start over again, would you go to the same law school you are now attending?  

<table>
<thead>
<tr>
<th>Predictor Variable</th>
<th>Intermediate Educational Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.09**</td>
</tr>
</tbody>
</table>

How would you evaluate your entire educational experience at your law school?  

<table>
<thead>
<tr>
<th>Predictor Variable</th>
<th>Intermediate Educational Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.21**</td>
</tr>
</tbody>
</table>

*Note: n = 1,756; R² = .428; Adjusted R² = .422. *p < .05; **p < .01; ***p < .001* 

Table 2 below lists all twenty-one significant predictors in order of beta weight strength in the final step of the regression analysis.

Table 2

**Significant Predictors of Cumulative Law School GPA in Order of Final Step Beta-Weight Strength**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Predictor Variable</th>
<th>Final Step β</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Law journal membership</td>
<td>.31***</td>
</tr>
<tr>
<td>2</td>
<td>LSAT</td>
<td>.25***</td>
</tr>
<tr>
<td>3</td>
<td>Undergraduate GPA</td>
<td>.17***</td>
</tr>
<tr>
<td>4</td>
<td>How would you evaluate your entire educational experience at this law school?</td>
<td>.10***</td>
</tr>
<tr>
<td>5</td>
<td>Come to class without completing readings or assignments</td>
<td>-.09***</td>
</tr>
<tr>
<td>6</td>
<td>If you could start over, would you go to the same law school you are currently attending?</td>
<td>-.09***</td>
</tr>
<tr>
<td>7</td>
<td>Did you begin law school at your current institution or elsewhere?</td>
<td>-.09***</td>
</tr>
<tr>
<td>8</td>
<td>Law school size</td>
<td>.09***</td>
</tr>
<tr>
<td>9</td>
<td>Working for pay in a non-legal job</td>
<td>-.07***</td>
</tr>
<tr>
<td>10</td>
<td>Contributed to: developing legal research skills</td>
<td>-.07***</td>
</tr>
<tr>
<td>11</td>
<td>Moot court team (yes/no)</td>
<td>.07***</td>
</tr>
<tr>
<td>12</td>
<td>Are you white (non-Hispanic)?</td>
<td>.07***</td>
</tr>
<tr>
<td>13</td>
<td>Asked questions in a class or contributed to class discussions</td>
<td>.07***</td>
</tr>
<tr>
<td>14</td>
<td>Job search help (satisfaction)</td>
<td>.07***</td>
</tr>
<tr>
<td>15</td>
<td>How much education debt from attending law school do you expect to have upon graduation?</td>
<td>-.06***</td>
</tr>
<tr>
<td>16</td>
<td>Worked on a legal research project with faculty (yes/no)</td>
<td>.06**</td>
</tr>
<tr>
<td>17</td>
<td>Contributed to: learning effectively on your own</td>
<td>.06**</td>
</tr>
</tbody>
</table>
Block One – Inputs. The first two research questions examined if undergraduate GPA, LSAT scores, and other input measures had any influence on cumulative GPA among third-year, full time law students. Addressing the first research question, both undergraduate GPA (β = 0.17, p < .001) and LSAT scores (β = .25, p < .001) were significant positive predictors of cumulative law school GPA among third-year JD students. In fact, LSAT scores and undergraduate GPA emerged as the second and third strongest predictors of cumulative law school GPA in the third year, respectively.

The second research question asked if there were additional input measures beyond undergraduate GPA and LSAT scores that were significant predictors of cumulative LGPA. Three factors (one positive, two negative) emerged as significant predictors of cumulative LGPA. The one input measure that emerged as a significant positive predictor of law school GPA in the input block was minority status, meaning white students were more likely to have higher law school grades than minority students (β = .07, p < .001).

Whether a student started law school at their current institution or elsewhere emerged as one of the two significant negative predictors of cumulative law school GPA (β = -.091, p < .001) in the input block. In other words, if a student transferred from one law school to another, they were more likely to have a higher law school GPA than
students who only attended one law school. Likewise, a student’s expected student loan debt upon graduation from law school was a significant negative predictor of law school GPA ($\beta = -0.06, p < .001$), meaning that students with lower expected amounts of debt were likely to have a higher law school GPA.

**Block Two – Between-College Characteristics.** The third research question asked if there were any between-college characteristics that were significant predictors of cumulative law school GPA. Two variables were entered into the regression analysis, and law school size emerged as a significant positive predictor of law school GPA ($\beta = 0.09, p < .001$). Thus, students attending larger law schools were more likely to have higher law school GPAs than students attending smaller law schools.

**Block Three – Student-Student Interaction.** Research question four sought to determine what influence, if any, student-student interaction variables had on cumulative law school GPA among third-year, full-time JD students. The two positive predictors of cumulative law school GPA that emerged from this block were the number of hours spent per week relaxing and socializing ($\beta = 0.05, p < .01$) and the number of hours spent per week participating in law-school sponsored activities ($\beta = 0.04, p < .05$). Thus, students did better in school when they spent more time resting, having fun, and getting involved in activities sponsored by the law school.

**Block Four – Student-Faculty Interaction.** The fifth research question sought to determine what influence, if any, student-faculty interaction variables had on the criterion variable. One variable, whether the student worked on a research project with faculty ($\beta = 0.06, p < .001$), emerged as a positive predictor of cumulative law school GPA among third-year, full-time JD students. Students that worked on a legal research project were
more likely to have higher cumulative law school GPA than students that did not participate in such a project.

**Block Five – Academic Involvement.** Research question six asked if academic involvement variables had any influence on law school GPA among full-time, third-year JD students. Regression indicated that five predictor variables were significant predictors of cumulative law school GPA among full time, third-year JD students. Four variables were positive predictors of the criterion variable, and one variable was a negative predictor of the criterion variable.

The four academic involvement variables that emerged as positive predictors of the criterion variable were: asking questions in class or contributing to classroom discussion ($\beta = .07, p < .001$); participation in law journal ($\beta = .31, p < .001$); participation in moot court ($\beta = .07, p < .001$); and frequency of preparing two or more drafts of a paper before submission ($\beta = .05, p < .05$). Participation in law journal membership was the strongest predictor of the criterion variable in this dissertation. These findings indicate that students with greater involvement in academic-based student organizations such as a law journal or moot court and their engagement with classroom discussion and frequent revisions of their academic work are associated with higher cumulative law school GPA.

The one negative predictor of cumulative law school GPA was coming to class without completing readings or class assignments ($\beta = -.09, p < .001$). Thus, students that came to class prepared for instruction by reading their assignments or texts beforehand were more likely to have a higher GPA than their counterparts that came to class unprepared.
Block Six – Non-Academic Involvement. Next, the seventh research question was addressed by entering the non-academic involvement variable block into SPSS. One negative predictor, the number of hours working in a non-legal job ($\beta = -0.07$, $p < 0.001$), emerged as a significant predictor of cumulative law school GPA among third-year, full time JD students from the non-academic involvement block. As the hours as student worked per week in a non-legal job went up, cumulative law school GPA went down.

Block Seven – Intermediate Educational Outcomes. The final block, intermediate educational outcomes, produced eight significant predictors of cumulative law school GPA among third-year, full time JD students. Six variables were positive predictors and two were negative predictors.

The four positive predictors of cumulative law school GPA were: how would you evaluate your entire educational experience at your law school? ($\beta = 0.10$, $p < 0.001$); law school contributed to learning effectively on your own ($\beta = 0.06$, $p < 0.01$); satisfaction with job search help ($\beta = 0.07$, $p < 0.001$); and law school contributed to acquiring job or work-related knowledge and skills ($\beta = 0.05$, $p < 0.05$).

The two negative predictors of cumulative law school GPA were if you could start over again, would you go to the same law school you are now attending? ($\beta = -0.09$, $p < 0.001$) and whether the law school contributed to developing legal research skills ($\beta = -0.07$, $p < 0.01$). These results indicate that if a student would not wish to re-attend the same law school they are currently attending, they would be more likely to have a higher GPA than those who would go back to the same law school, and students that did not see improvement in legal research skills would have a higher LGPA than students who saw an improvement in their researching ability.
Summary

Out of one hundred and two predictors entered into the regression analysis, the final model produced twenty-one significant predictors of law school GPA among third-year, full time JD students. The final model explained 42.2% of the variance in cumulative law school GPA. Law journal membership was the strongest predictor of law school GPA, followed by LSAT scores and undergraduate GPA. Undergraduate GPA and LSAT scores are the most widely-used measures in law school admissions, and for good reason. In this dissertation, they explained 20% of the variance in law school GPA.

When considering only the significant predictors of cumulative law school GPA, other input measures beyond LSAT and UGPA accounted for 2.1% of the variance; between-college characteristics (law school size) accounted for 0.6% of the variance; student-faculty interaction (working on a legal research project with a faculty member) explained 2.3% of the variance; academic involvement accounted for an additional 14.4% of the variance; non-academic involvement explained 1% of the variance; and intermediate educational outcomes accounted for 1.8% of the variance.

The implications of these findings deserve further discussion with particular attention to the advancement of research and theoretical knowledge, policy development, and professional practice. Implications of the research in addition to concluding thoughts and a summary of the entire research project will next be discussed in Chapter Five.
Chapter Five

Discussion, Recommendations and Conclusions

Introduction

Chapter Four presented the findings of the regression analysis in order to answer the research questions via a thorough analysis of the data. This chapter briefly reviews the purpose of the dissertation, research methodology, and the sample of interest. The research questions and findings are discussed by block, and are immediately followed by discussion of the implications for further study, professional practice, and policy. The dissertation is concluded with a summary.

Purpose of the Dissertation

The purpose of this dissertation was to examine if selected inputs, between-college characteristics, involvement variables, and intermediate educational outcomes had any impact on cumulative GPA among third-year, full-time law school students in the United States. The literature review helped group involvement variables into four areas, including 1) student-student involvement, 2) student-faculty involvement, 3) academic involvement, and 4) non-academic involvement.

This dissertation applied and expanded involvement theory to include students in law school, and also utilized the I-E-O model for data grouping and analysis. The population of interest was any third-year, full-time JD student attending a law school in the United States that responded to the 2008 version of the Law School Survey of Student
Engagement (LSSSE). The sample for this dissertation was 1,756 student responses to the 2008 LSSSE survey. Regression analysis found that twenty-one variables were significant predictors of cumulative law school GPA among full-time third-year law school students.

**Discussion of the Results**

Five of the twenty-one significant predictors of cumulative law school GPA were inputs: undergraduate GPA, LSAT scores, transfer student status, non-minority student status, and expected student loan debt upon graduation. All of the input variables were positive predictors of the criterion variable with the exception of student loan debt. Law school size was the only between-college characteristic that emerged as a significant predictor (positive) of the criterion variable. Working on a legal research project with faculty emerged as the only significant predictor from the student-faculty interaction block (also positive). In the academic involvement block, four variables were significant predictors: law journal member, coming to class without completing readings or assignments, moot court team, frequency of preparing two or more drafts of a paper before turning it in, and frequency of asking questions in class. All of the significant predictors in this block were positive, with the exception of coming to class without completing readings or assignments. Student-student involvement proved in two areas to be a significant positive predictor: the number of hours spent per week relaxing and socializing, and the number of hours spent per week participating in law school-sponsored activities. The non-academic involvement block produced one significant predictor (negative): the number of hours working for pay per week in a non-legal job. The final six significant predictors came from the intermediate educational outcome
block. They were: satisfaction with job search help (positive predictor); whether the law school contributed to the student’s ability to learn effectively on their own (positive predictor); whether the law school contributed to the student’s legal research skill development (negative predictor); whether the law school contributed to acquiring job or work-related knowledge or skills (positive predictor); and if the student could start over again, would they go to the same law school you are now attending (negative predictor). Among the twenty-one predictors of cumulative law school GPA in the third year, fifteen were positive and six were negative predictors.

**Block One – Inputs.** Research questions one and two asked what influence, if any, do undergraduate GPA and LSAT scores and input measures, respectively, have on law school GPA among full-time, third-year JD students. Addressing the first question, undergraduate GPA and LSAT scores were both strong positive predictors of the criterion variable, which is a consistent finding with the limited research on cumulative law school GPA (Wightman, 2000). The LSAT was originally designed to help predict academic success in law school (LaPiana, 1998), and these results give additional credence to the test’s ability to predict a student’s potential in law school. Admissions officers and committees often look first to these two metrics to help them decide who will gain access to a legal education, and this dissertation affirms schools’ heavy reliance on these metrics as a valid practice of predicting a candidate’s academic performance in law school.

White/Non-Hispanic status also emerged as a positive significant predictor of law school GPA, meaning that among students responding to the 2008 LSSSE survey, white students had higher grades than minority students. For the purpose of this dissertation, racial status responses on the LSSSE survey were re-coded into a white/non-white
response. While this finding goes against previous studies of law students, which have found no difference in law school GPA between white and minority law students (Norton, Suto, & Reese, 2009; Wightman, 1997), Astin (1993) found white students had significantly higher grades than minority students at the undergraduate level.

This finding does not imply that white students will always perform better than minority students in law school, nor does it imply that white students should be given preferential treatment in the law school application and admissions processes. Previous studies have shown (Wightman, 1997) that if schools eliminated the consideration of race in the admissions process, white students would have a significant additional advantage in the admissions process, which would negatively impact the crafting of a diverse and heterogeneous law school class. Wightman argued convincingly that a “data-only” admissions policy that looks at just LSAT scores and undergraduate GPA would result in a drastic reduction of the number of minorities admitted to law school. Derek Bok, former president of Harvard University and co-author of The Shape of the River (Bowen & Bok, 1998), a highly influential text on the importance of affirmative action in admissions policies, relied greatly on Wightman’s data in an expert report (Bok, 2003) filed as part of the landmark Grutter v. Bollinger case (2003) that upheld the use of race as a factor in law school admissions.

Transfer student status and expected educational debt upon graduation were the two negative predictors found in the input block. First, in regards to transfer student status, the results indicate that students who transferred from one law school to another performed better in the classroom than students who started and finished at the same law
school. These results make sense given that transfer students likely need very high GPAs to be able to transfer to another law school.

Along the same line, students with less expected debt upon graduation are associated with higher GPAs than students with more debt. This finding aligns with prior research regarding student loan debt levels and their negative impact on undergraduate retention rates (St. John, 2000; Cabrera, 1992, 1993). Strayhorn’s research (2005) found that graduate student persistence was negatively associated with student loan debt levels, and this dissertation’s findings support the extension of his work to the law school area. Considering that the students answering this question are combining undergraduate and law school debt, students may face added pressure to work part-time while in law school in order to help pay their way through law school and to reduce the burden of repayment upon graduation. Law GPA may also be a predictor of debt in the reverse: law students with better grades have more opportunities for summer internships, thus leading to more income to pay down debt and/or tuition. Although working part time outside of school helps with increasing work experience and provides additional income, this dissertation found that working part time was a negative predictor of law school GPA. As such, law schools are advised to help students understand their loan repayment options and to encourage them not to add on excessive hours of employment while in school.

Prior research (Chen & DesJardins, 2010; Hu & St. John, 2001) found that grants have a larger positive impact on undergraduate student retention among minorities than whites. Since the results of this dissertation indicate that there is a difference in law school GPA among white and minority students, additional research into the effects of financial aid packaging on retention and academic success among different races is
warranted. Also, since Astin (1993) found that socioeconomic status (SES) was a positive predictor of undergraduate GPA (more affluent students had higher GPAs than disadvantaged students), it is worth exploring what effect, if any, SES has on law school GPA. In the end, since no studies have been found studying what impact, if any, financial aid packaging strategies have on law students’ GPA or persistence, additional work needs to be done in studying the linkages between financial aid and law student retention.

The rest of this dissertation’s findings showed that academic involvement and intermediate educational outcome variables explained just as much variance in law school GPA as undergraduate GPA and LSAT scores, which gives support to law school administrators creating or maintaining academic and social support programs to help students inside and outside of the classroom. Creating these kinds of support services can give a significant “value added” boost to a student that may not have a high undergraduate GPA and LSAT scores, but still has a significant chance of success in law school, if they are encouraged to get involved with faculty, ask questions in class, come to class prepared, and utilize career services, among other factors.

**Block Two – Between-College Characteristics.** Research question three asked what influence, if any, between-college characteristics have on law school GPA. The LSSSE survey instrument limited this dissertation to only two variables in this block, but one variable (law school size) proved to be a significant predictor of law school GPA. This indicates that as the size of the law school increases, so does cumulative law school GPA. Previous research has been silent on the matter of whether the size of a law school has any predictive power on a criterion variable of interest. One potential explanation is because larger law schools have larger class sizes, instructors may be forced to administer
more objective exams to help cope with the increased workload. This may lead to students having inflated GPAs because there is more opportunity to arrive at a “right answer” through the grading process. Further research needs to be done on this topic to better investigate why students at larger law schools have higher law school GPAs.

**Block Three – Student-Student Interaction.** The fourth research question addressed whether any student-student interaction variables were predictors of law school GPA. The positive predictors of cumulative LGPA that emerged from this block were the number of hours spent per week relaxing and socializing and the number of hours spent per week participating in law-school sponsored activities. This indicates that law school GPA increases as students spend more time away from school relaxing and participating in extracurricular activities.

With regard to the first finding, “time spent relaxing and socializing,” the survey question did not specify with whom the survey respondent would spend this socializing time. Although the intent of the survey writer is unclear, this variable was included in the student-student interaction block because an assumption was made that the student responding to the LSSSE survey would likely spend time relaxing and socializing with other law school classmates. Students are likely to spend the most amount of time with their peer group, which is generally true of any full-time student population.

Astin (1993) and others (Pritchard & Wilson, 2003) found different results at the undergraduate level, where involvement in partying, Greek-letter organizations, and drinking/hedonism, among other factors, were negatively associated with outcomes of interest. There are two potential explanations for this finding. Students with more cognitive ability may have the ability to spend more time relaxing since they do not need
to study as much as a student with lower levels of cognitive ability. Second, third-year law students that have a job offer upon entering their final year of school may have more time to relax, have fun, and skip class because they have already locked in a job upon graduation. They do not have to try as hard as other students who are still looking to secure their first full-time job upon graduation. The LSSSE survey could be enhanced by asking third-year law students if, at the time the student is completing the survey, they have already accepted a job offer. This may help identify differences in behavior among students who have a job in hand and those who do not, and if that difference in behavior affects law school GPA.

In any event, the quality and frequency of student-student interaction has been proven in prior research to be a strong predictor of positive outcomes at the undergraduate level (Astin, 1993; Pascarella & Terenzini, 2005). Law school is also very stressful (Floyd, 2010; Gibson, 2010; Gulati, Sander, & Sockloskie, 2001), so encouraging students to relax and take their mind off of school through activities and personal time (within reason) is helpful advice for helping law students cope with the demands of school. Thus, law schools are encouraged to continue programming to connect students with one another, as increased connectedness with fellow colleagues can create an atmosphere of support and camaraderie in the academic and personal arenas.

**Block Four – Student-Faculty Interaction.** Regarding research question five, one variable in the student-faculty interaction block, working on a research project with faculty, proved to be a positive predictor of cumulative law school GPA. Working on independent research projects under the direction of a faculty member has been associated with positive outcomes at the undergraduate level, so it is encouraging that
there are additional positive outcomes at the law school level with increasing contact between students and faculty. In their landmark article discussing graduate student development, Girves and Wemmerus (1988) proposed that graduate students have a higher chance of retention and other positive outcomes if they had quality interactions with faculty.

Thus, this finding on working on research with faculty not only supports related research on graduate students, but it also underscores the importance of promoting interaction between students and faculty inside and outside of the classroom. Faculty and administrators are advised to examine their curriculum to see if additional student-faculty interaction can be added to the curriculum, perhaps in working on writing and/or revising articles for legal journals.

**Block Five – Academic Involvement.** Research question six was addressed through variables in the academic involvement block. Five academic involvement variables were predictors of cumulative law school GPA: law journal, moot court, asking questions in class, and preparing two or more drafts of a paper before submission were positive predictors, and coming to class without completing readings or assignments was a negative predictor of law school GPA.

Previous research on law students argued that increased time on task, the number of hours studying for exams, and revising multiple drafts of assignments before submission, among other factors, helped third-year law students in their GPA (Loftman, 1975). The significant predictors that emerged from this academic involvement block confirm these findings, lending additional support to the argument that academic involvement is a significant positive factor among law students.
To reiterate a comment from Chapter Four, law journal membership was the strongest predictor of cumulative law school GPA. Participating in a law review or law journal does not mean that those students have a better chance of having a higher GPA than their colleagues; rather, invitations for membership on the law review are only extended to students with the highest GPAs in their class. Thus, it was expected that students participating in the law review would have very high GPAs near the end of the program because a high GPA is a prerequisite to joining the law review.

However, the degree to which membership in the law review is a “value added” activity cannot be ascertained due to the limitations of the survey instrument. In future administrations of the LSSSE survey, it would be helpful to have a question asking students if they had participated in the law review, and if not, whether they were invited to participate in the law review. Thus, students who had the high GPA to enter the review, and for some reason, did not participate, could be compared to the students who actually participated in the law review.

The importance of increasing student involvement is underscored yet again by finding that moot court involvement and asking questions in class are significant positive predictors of law school GPA. That is, law school GPA increases when a student participates in moot court and when students increase their frequency in asking questions in class. Students should be extended the opportunity to participate in moot court when possible, and these findings shed light on the importance of participating in this “hands-on” or “action learning” activity. For example, the Moritz College of Law at Ohio State requires all JD students to participate in moot court (Ohio State University, n.d.), but students at the Case Western Reserve University School of Law must try out to have the
opportunity to represent the school at various mock trial/moot court competitions (Case Western Reserve University School of Law, n.d.). Since there does not appear to be a consensus on making moot court/mock trial a requirement in the legal curriculum, more research is warranted on the feasibility of making moot court a requirement of all ABA-accredited law schools. Both the MacCrate and Carnegie Commissions advocated for more practical, hands-on training for the next generation of lawyers, and this dissertation gives evidence to support the claim that more practical, clinical work is necessary for academic growth.

In addition, preparing two or more drafts of a paper before submission evidences the importance of reviewing arguments presented in writing assignments and final exams. Law schools would be wise to take this finding and to share it with students during orientation to encourage them to revise and to re-write final exams and writing assignments on a regular basis.

Finally, the data in this dissertation indicate that students coming to class prepared and having completed their required readings and assignments are positively associated with a higher GPA than students who come to class unprepared. This finding is consistent with decades of research of undergraduate students (Astin, 1993), where time-on-task is directly and positively associated with positive outcomes, such as college GPA. In addition, prior studies of law students (Gulati, Sander, & Sockloskie, 2001) found that among third-year law students, class attendance was associated with higher GPAs, and as such, this dissertation supports the literature on this topic. This finding, although one that comes from deductive reasoning, does bear repeating during orientation, prospective student recruitment events (open houses), and academic advising. Students are advised by
counselors, faculty, and staff to prepare several drafts of papers and final examinations to ensure that they are communicating ideas clearly, concisely, and effectively, and the results of this dissertation indicate that this is advice worth adhering to at the professional school level as well.

**Block Six – Non-Academic Involvement.** Research question five asked whether there were any non-academic involvement variables that were significant predictors of cumulative LGPA. One variable, working for pay in a non-legal job, was found to be a negative predictor of law school GPA. Put another way, students working fewer hours in a non-legal job results are associated with higher cumulative law school GPAs. Although working for pay in a non-legal job is a good thing because it brings additional experience, money, and interaction with others outside of school, by definition, the more hours that a student works, the less time they are able to devote to studying and preparing for class. Working significant hours in non-legal jobs also reduces the valuable exposure to the law that is gained through legal-related employment. The American Bar Association has a policy that restricts students from working more than 20 hours per week if they are a full-time JD student (American Bar Association, 2007), and the results of this dissertation indicate that this policy is not only based on common sense, but it also helps students stay on course academically.

**Block Seven – Intermediate Educational Outcomes.** In order to answer the final research question posed in this dissertation, question eight, an intermediate educational outcome block was inserted into the regression equation. Six variables (four positive, two negative) emerged as significant predictors of cumulative law school GPA.
The first positive predictor of cumulative law school GPA in this block was satisfaction with the entire law school educational experience. This finding is consistent with research at the undergraduate level (Astin, 1993), which has consistently found that satisfaction with the collegiate experience has been associated with increased retention rates, graduation rates, and other outcomes. Studies of law students (Gulati, Sander, & Sockloskie, 2001) also found that the vast majority of third-year law students would not change their decision to attend law school if they had the opportunity, which indicates not only do many law students have a positive view of the law school experience, but this attitude is also a positive predictor of GPA.

The ability of a law school to help a student improve in several areas (e.g. “value added”) also proved to be significant positive predictors of law school GPA. Law schools’ contribution to a student’s ability to learn effectively on their own and acquiring work-related knowledge were positive predictors. Satisfaction with job search assistance provided by the law school was the final positive predictor in this block.

Taken together, these three positive predictors indicate that career services in law schools have significant added value beyond helping students land internships during law school and permanent employment upon graduation. Not only do career services have a positive impact on academic performance, the ability of the law school to provide added value and help a student improve their learning skills and abilities also is a significant predictor of academic performance. That is, Astin’s talent development view of educational excellence (Astin, 1985) proves to be a very appropriate model in the law school environment. Law schools that provide excellent service and help students
improve their skills are more likely to have students perform better in the classroom than law schools that do not provide the “added value” students need in order to be successful.

Two variables from the intermediate educational outcome block, whether the law school contributed to legal research skill development, and whether the student would re-attend the law school they are currently attending, emerged as negative predictors of cumulative law school GPA.

The first finding in this block indicates that students who have not increased their skills in legal research have higher GPAs than students who reported a positive increase in their ability to conduct legal research work. Deductive reasoning would lead to a conclusion that added value in terms of legal research skills would help students perform better academically. For example, Leah Christensen (2007) found that law students’ GPAs differed depending on their ability to read and comprehend legal documents. One possible explanation for this finding is that students reporting a non-existent gain in legal research ability were already trained in the practice of researching evidence, legal precedent, and other matters related to the law. Perhaps these students previously worked in a law office as a paralegal, undertook paralegal studies as their undergraduate major, or learned these skills through a defined pre-law undergraduate curriculum. It is impossible to better answer these additional questions given the current state of the LSSSE survey.

The second negative predictor of LGPA in the intermediate educational outcome block was if the student would re-attend the law school they are now attending. Considering student satisfaction with the entire law school experience was found to be a significant positive predictor of LGPA in the third year, this particular finding gives contradicting information. Satisfaction has long been associated with positive outcomes,
so there is little explanation for a conclusion that students who would not re-attend their law school are likely to be better students than those who would re-attend the same law school they attended. One potential explanation is that certain law students may have a perfectionist mentality, so if they did not have a perfectly satisfying experience (or did not get into the school of their choice), the student may be more willing to share their desire to attend another school if they had the opportunity.

The regression analysis indicated that both of these predictor variables had a slight positive correlation with the criterion variable, which was expected. However, the initial and final beta weight was negative, which directly contradicts the correlation finding. This contradiction is likely due to suppressor effects, meaning that additional predictor variables consumed enough of the variance that could be explained by the “legal research” and “re-attendance” questions. As such, this statistical artifact cannot be adequately explained based on the results of this dissertation. Additional research is encouraged to better understand what effect, if any, satisfaction with the law school experience and legal writing skill development has on cumulative law school GPA.

**Recommendations for Future Research**

This dissertation has significantly added to the literature on law students and student involvement theory by undertaking the first known national, quantitative examination of what impact, if any, student involvement has on cumulative law school GPA. While this is a significant first step, more work needs to be done to better understand the law school experience and the impact of student involvement on outcomes of interest among law students. This dissertation uncovered a number of areas where further study is encouraged in order to better understand the law school experience.

89
**Law Students.** While GPA is the most observable metric of a student’s academic performance, alternate measures of academic success and student success should also be investigated in further research. For example, a student that graduates from a mid-tier law school with a 2.5 LGPA may not be considered a success compared to his or her higher GPA counterparts, but the 2.5 GPA student may be a first-generation college student with a lower socioeconomic status (SES) than the majority of law students at their school. This would clearly be a success story, and even more so if the student was able to pass the bar examination and have a successful professional career.

These alternative measures of student success could include the percentage of students that participate in the life of the law school, utilize career services for job search help, work on research projects with faculty, or come to class prepared. These are just a few of the involvement measures that have been shown in this dissertation to be significant predictors of law school GPA, and as such, additional research is warranted to shed additional light on the social and professional benefits of involvement in law school.

The research questions posed in this dissertation yielded some results that are either contradictory to other results in this dissertation or are somewhat confusing when considering prior research on undergraduate students. Specifically, satisfaction with the law school experience was a positive predictor of law school GPA, but whether the student would re-attend their law school was a negative predictor. In addition, students that reported not developing their legal research skills were associated with higher GPAs than students that reported an increase in their ability to conduct legal research. As a result, more research is warranted to investigate what linkages, if any, exist between student satisfaction and legal research skills and law school GPA.
**Involvement Theory.** Involvement theory was proven to be a useful framework for understanding the impact that student activity has on cumulative law school GPA, and as such, this dissertation adds to the strength of utilizing this theory for additional populations other than undergraduate students. Researchers could use this dissertation as a springboard for investigating the impact of involvement on other student populations, including students in all other forms of graduate and professional education (medicine, education, veterinary, optometry, dental, business, etc.). In addition, researchers can investigate whether student involvement has an impact on measures beyond cumulative GPA in graduate and professional school. Some of these measures could include passage rates on licensing examinations, income, career satisfaction, commitment to community service, and alumni engagement. The opportunities for extending the involvement theory to graduate and professional education are limitless, and based on the positive findings of this dissertation, scholars are highly encouraged to extend this dissertation’s scope to open up a new world of understanding the entire post-secondary environment.

**Indiana University Center for Postsecondary Research.** Numerous improvements could be made to the LSSSE survey instrument in order to enhance future research opportunities and development of additional research questions. First, survey respondents were not asked for their opinion on the effectiveness of their school’s law library or law librarians. Since many law students spend an extraordinary amount of time in school and in professional practice conducting legal research, the quality and quantity of exposure to law librarians and their school’s library is a prominent part of the law school experience. The LSSSE staff should investigate the feasibility of adding questions on law libraries and law librarians to the annual survey.
Second, the LSSSE survey asked far fewer questions on input measures than other products in the IUCPR family, notably the National Survey of Student Engagement (NSSE). Additional insight might come about as a result of adding additional questions to the LSSSE survey, including gaining information on important inputs such as family educational history, income levels, undergraduate major, legal-related work history, or whether they are attending their first, second, or third choice law school. For the purposes of this dissertation, an important pre-test could also be added to the input block if the LSSSE survey collected levels of academic and non-academic involvement at the undergraduate level. This important involvement data could also be collected through linking NSSE survey responses with LSSSE surveys. Connecting the NSSE and the LSSSE would lend a significant amount of added data to researchers to help better explain the effects of undergraduate involvement on the law school experience. Conventional wisdom would deduce that undergraduate student involvement would be highly correlated with involvement in law school, which may have significant implications for assessing additional factors that influence law school GPA as well as using alternate factors during the law school admissions process. The LSSSE staff is highly encouraged to find ways to link any survey responses from the National Survey of Student Engagement (NSSE) survey to LSSSE survey responses.

In addition, the survey instrument did not allow students to select multiple races in describing their racial identity. Multiracial students are thus not permitted to fully describe their heritage and background, and this limits the ability of future research to determine what influence, if any, students’ race has on a criterion variable of interest. In the future, the LSSSE staff should allow students to select more than one racial identity
when completing the survey. Related to race, the LSSSE survey should investigate adding a question to whether the student is a racial or religious minority at their law school. This question could potentially shed light on the experiences of, for example, atheist students attending a faith-affiliated school such as Notre Dame, or a white student attending a historically black college or university.

Third, several questions are ambiguous, which necessitates the rewording of several questions so their intent is clear. With regard to the “financial counseling needed to afford your education” question, is the student supposed to give feedback on the school’s emphasis on providing financial counseling, or assess the school’s emphasis on providing financial aid in the forms of loans, grants and scholarships? The input block indicated that the amount of student loan debt is negatively associated with law school GPA, meaning that students perform better when they have lower debt levels. Given this finding, it would be helpful to combine findings from the student debt question and the financial counseling question to help understand what influence, if any, financial counseling and literacy has on law school GPA. Law students are burdened with an added pressure that comes with borrowing heavily to afford the cost of a legal education. However, the wording of the financial counseling question prevents additional conclusions from being made as to the relationship between student loan debt and law school GPA. As stated before, the research question indicates two different concepts. This research question needs to be clarified in order to make a reasonable and educated guess, because as written, it is unclear as to the intent of the survey designers. The “time spent relaxing and socializing” survey question did not specify with whom the survey respondent would spend this socializing time or the specific activities in which they
participated. Clarification on this question in later editions of the LSSSE survey would lend clearer insight into the minds and lives of law school students.

The “hours spent relaxing/socializing/partying” question also needs additional clarification. The question does not specify who the student is spending this relaxing time. Are they relaxing with family, other students, or faculty? In what context is this socializing occurring? The survey respondents do not have instructions on how to answer this question, and clarified instructions can lead to more information to assess what influence, if any, this relaxing time has on law school GPA in the context of faculty-student interaction or student-student interaction. A corollary addition that should be added to the survey is on employment upon graduation. Third-year students should be asked if they already have accepted a job offer at the time of completing the survey. Researchers would not only benefit from studying changes in job offer/acceptance rates over time, but future studies of law students could analyze if there were any significant differences in the number of hours spent per week relaxing/socializing/partying among students that have accepted a job offer and those that have not accepted an offer.

Finally, great insight can also be gained if the LSSSE staff were willing to divulge selectivity statistics with students’ survey responses. One potential use of this data could be to analyze the differences in predictive power of the LSAT among students attending a highly selective law school and those attending a law school in the third tier of U.S. News and World Report’s annual rankings. Perhaps it could be found that the LSAT is a useful predictor of cumulative law school GPA among less selective law schools, but it is not as useful as undergraduate GPA among students in very selective law schools. Political ramifications may not allow LSSSE to report these additional between-college
characteristics, but numerous practical insights could be gained if the LSSSE staff reported that a student was attending a top-tier law school (#1-25), second rank in the top tier (#26-50), and so on until student responses came from unranked groupings of schools (e.g. third or fourth tier).

**Implications for Professional Practice**

This dissertation not only has significant implications for the extension of involvement theory, future studies of law students and other graduate/professional students, but the results of this dissertation bear implications for carrying out the practice of educating and serving law students. This next section offers recommendation for practice, specifically in the area of law school administrators, staff, and faculty.

**Implications for Law School Administrators and Staff.** Over the course of the last half-century, the amount of and depth of assessment activities has exploded at the undergraduate level, but not much has been done with assessment at the graduate and professional degree levels. Promising work has recently been done exploring how the assessment process can be used to improve doctoral programs (Maki and Borokowski, 2006), where tools such as online portfolios and focus groups are noted for their ability to give administrators insight into what students are learning, how they are learning, and their satisfaction with the program.

Law school administrators should take the results to heart in considering levels of support for student affairs-related functions as well as designing a comprehensive assessment system for the JD program. The results show that satisfaction with various student support services are significant predictors of cumulative GPA, and it would be
prudent of administrators to encourage student participation in these services and to include those participation measures in assessment measures.

LSAT scores and undergraduate GPA were shown to be the second and third-strongest predictors of cumulative law school GPA, respectively, which supports their continued use in the law school admissions process. However, since several environmental measures, specifically involvement variables, were proven to be significant predictors of law school GPA, admissions committees should consider reviewing other characteristics (involvement in undergraduate student activities, independent research, career goals, etc.) when evaluating applicants for admission. By adopting a holistic application review process and reviewing factors beyond the standard undergraduate GPA and LSAT metrics, more students will have a chance to obtain a legal education. In addition, if law schools implement the involvement-related recommendations of this dissertation, students with lower undergraduate GPAs and LSAT scores can be counseled on ways to get involved in the law school experience in order to boost their chances of success.

**Implications for Law School Faculty.** Law school faculty can also take the findings of this dissertation and implement them in their classroom and their daily interactions with students. First, this dissertation showed that increased involvement in the classroom was a positive predictor of law school GPA in the third year. Thus, faculty who actively involve students in classroom discussions should continue to do so, and faculty who lecture more than they have students discuss legal theories and cases should consider reworking their teaching style and syllabus to allow for more interaction in the classroom setting. Questions from students should be encouraged, as reflective thinking
on the law and its application to the real world will be the centerpiece of any legal career, but it also has been shown to be a positive predictor of law school GPA.

Outside of the classroom, this dissertation showed that involvement with faculty is critically important to a student’s success. Faculty may consider a class requirement of meeting with the faculty member more than once during office hours during the semester. Such a requirement would force a student to discuss career and academic questions with the faculty, thus perhaps getting a poorly performing student on the right track or helping a shy and lonely student find a trusted confidant. Increased involvement with a faculty member might help a student perform better in school and help them persist and graduate.

**Policy Implications**

The most present opportunity for improvement in the policy arena comes in the area of assessment activities and the use of assessment data in accrediting law schools. Regional accreditation bodies understand that a great university is made up of more than high undergraduate GPAs, standardized test scores, and employment rates. In particular, sound universities have well-established assessment policies, but unfortunately, such practices are in short supply at the law school level.

In 2007, the American Bar Association’s Section of Legal Education and Admissions to the Bar called together a task force to address the place of accreditation in the law school arena with a particular focus on policy implications and development (Schneider et al., 2007). Of particular importance is the section of the report addressing what output measures should be examined during initial and re-accreditation visits of law schools. The Task Force maligned the current reliance on employment rates and bar passage rates as proof of educational quality, due to those metrics being focused only on
outcomes. The Task Force then failed to identify additional measures of law school educational quality, concluding that “notwithstanding the difficulties in moving to a more outcome-based evaluation system, the Task Force recommends that the ABA move in that direction as rapidly as possible.” (Schneider et al., 2007, p. 7). The task force report thus identifies the importance of assessment in legal education, but does not know where to go from the current state of affairs.

Based on the results of this dissertation, the ABA and law schools are encouraged to implement pre-test and post-test measures in various areas to assess the “value added” that accredited law schools provide to law students. Incoming JD students should be asked the level of their proficiency in a number of areas, including legal research, professional and legal writing abilities, integrating ideas from multiple sources into a concise legal argument, and satisfaction with the law school experience, among other factors. Incorporating these factors into a more comprehensive outcomes-based assessment program that includes the existing placement rate and bar passage rate variables will provide universities and accrediting bodies a much richer lens to examine whether a particular law school provides students a quality education.

To a degree, the ABA can use the existing LSSSE instrument for assessment purposes because the survey assesses whether law schools provided a value-added service in improving students’ skills and whether the students were satisfied with their legal education. Although the LSSSE instrument is a great instrument to gather information for assessment purposes, it does not give a complete view into the performance of every law school in the country, so relying on a one-size fits all approach to assessment and accreditation would not be a wise decision. Rather, as the ABA Task
Force identified, each law school serves a different purpose; one may prepare students for careers as general lawyers, and another may have a well-established reputation in a specialized area of the law, such as Vermont Law School in environmental law, New York University in tax law, or the University of New Hampshire in intellectual property. Thus, the ABA and law schools should investigate the feasibility of implementing the results of this dissertation and school-specific LSSSE results as one avenue to assess the performance of JD programs.

**Limitations of the Dissertation**

As with any study, there are inherent limitations to the application of the findings to policy development and professional practice. As was mentioned in Chapter Three, this dissertation does not examine the involvement behaviors of students at every law school in the country, and while the list of schools that have participated in the LSSSE since its founding comprises more than half of the ABA-accredited law schools in the United States, the researcher was unable to identify the survey respondent’s home institution. As such, great care must be taken when, for example, creating and maintaining support services for law students or making changes in law school accreditation standards.

The issue of temporal sequencing was also previously mentioned as a limitation when applying findings to policy and practice. As we are unsure about the involvement behaviors of students in their undergraduate career, in addition to numerous additional input characteristics, we are unsure on when they became satisfied/dissatisfied with the law school experience, when they participated in a student activity, and so on.
In the section discussing implications of this dissertation for policy improvement, it was mentioned that the LSSSE should not be used as a “one size fits all” approach to identifying outcomes of interest. Missions of law schools vary greatly among schools (public/private, secular/faith-based, etc.), and one survey cannot feasibly get at the heart of “what matters” in law school at every school across the country. Each law school should review the LSSSE for its value in improving assessment practices, but they should also proceed with caution as the questions may not cover everything that the law school does in the student affairs and instructional areas.

One final note on the self-selection of law schools and survey respondents bears mentioning. At the undergraduate level, students that complete surveys on their collegiate experience are generally more satisfied with their experience. Since this dissertation examined student responses to a national survey that also required law schools to pay a sizable administration fee, the results of this survey should be considered in light of schools that were self-selecting as well. Since the LSSSE is an opt-in and fee-based survey, perhaps the schools that paid the fee to be a part of the survey were the schools that were already utilizing comprehensive assessment methods, were proactive in developing student affairs functions, and actively promoted faculty development. Schools that did not participate in the LSSSE may not have known about the survey or did not want to find out that they were not performing at the level of their peers. Thus, not participating in the LSSSE may be a move by several law school administrators for self-preservation. The results of the LSSSE and this dissertation may be different if all law students nationwide participated in the LSSSE survey.
Conclusions

This dissertation contributed to the literature on law students as the first known national, empirical examination of the relationship between student involvement and cumulative law school GPA. Prior research on this topic was limited to assessing the effect that undergraduate GPA and LSAT scores had on cumulative law school GPA, and this dissertation indicated that in addition to undergraduate GPA and LSAT, nineteen additional predictor variables were shown to be significant predictors of law school GPA in the third year. This was also the first known national, empirical examination of law students that utilized involvement theory to test for an outcome of interest.

The critical finding of this dissertation comes when the added value of student involvement is compared to the added value of the LSAT and undergraduate GPA. It was previously mentioned that input measures and law school size accounted for 22.1% of the variance in law school GPA, meaning that all other factors accounted for 20.1% of the variance in law school GPA. Put another way, the factors that were influenced before and after initial enrollment in the law school experience were nearly equal in explaining variance in law school GPA. Alexander Astin (1993) convincingly argued that involvement at the undergraduate level was strongly tied to positive outcomes, and for the first time, involvement theory has been shown to be a strong and useful lens to investigate the factors that explain GPA at the law school level. The results of this dissertation show the I-E-O model was a useful framework to analyze regression results.

Future researchers are highly encouraged to utilize both the I-E-O model and involvement theory in studies of law students and other students in graduate school and professional education. LSSSE data allowed the researcher the ability to answer questions
that have not been possible without the creation and implementation of a national survey instrument. Now that LSSSE data is available to researchers outside of the Indiana University Center for Postsecondary Research, additional studies of law students can be conducted utilizing the involvement theory. Future research could analyze the impact of involvement on satisfaction with the law school experience, utilization of career services, or expected employment setting upon graduation. The possibilities are numerous and, if undertaken, these future studies can greatly illuminate the law school experience and to what degree involvement plays in influencing a criterion variable of interest.

Likewise, the findings of this dissertation give hope to future studies of the impact of involvement in other fields of professional and graduate education. Professional practice and scholarship would be positively influenced by studies of involvement on outcomes in medical school, dental school, social work, business, and other fields. Empirical data on these student populations on a national level does not exist, but the results of this dissertation indicate that the creation of a Medical School Survey of Student Engagement, for example, could shed light on the understudied world of professional education. Due to numerous historical factors, undergraduate students have overshadowed professional and graduate students as a subject of study. Government agencies and professional associations such as the ABA are also encouraged to cooperate with academic researchers to advance the understanding of professional education in order to assist more students gain access to a career in any of the professions (medicine, law, education, business, etc.).

In addition to enhancing the literature on law students, the results of this dissertation are of critical practical importance to law school faculty and administrators,
prospective and current law school students, accrediting agencies at both the law school and institutional level, and the public at large. Individual and institutional actors can use the findings of this dissertation to help students improve their law school GPA, which has been shown to be a significant predictor of post-law school employment and passage of state bar examinations. Accrediting agencies should take note of the findings of this dissertation and actively work to require law schools and their parent institutions to create a robust outcomes-focused assessment plan in order to ensure student learning and to help them prepare for a career, which follows the advice of the influential Carnegie Commission and their *Educating Lawyers* report (Sullivan, Colby, Wegner, Bond, & Shulman, 2007). Student life professionals in the law school should utilize these findings in developing programming aimed at socializing students into the law school community, expressing the expected rules of engagement in the JD program, and then offering specific programs and advice aimed at improving LGPA and other outcomes of interest.

Students typically come to law school after four or more years at the undergraduate level. They then enroll for three more years of training in order to enter the legal profession, and these three critical years are characterized by stress, competition, and a worry that upon completing three years of education, students may not even pass the high-stakes state bar examination needed to enter professional practice. In today’s ultra-competitive job market, students are also much more conscious of the costs of legal education and their employment potential upon graduation, and as a result, students want to know if they are making a sound investment in their future. Undergraduate students want to know what they can do in order to be successful in law school, and the results of this dissertation give students more information about what they need to do to give
themselves the highest chance of personal, academic, and professional success. Law schools should take note of the increased awareness of their prospective customers and the rising focus on outcomes in the accreditation process in order to develop a game plan to ensure that schools are equipped to meet the challenges of delivering a quality legal education.
References


Avalos, J. (1996). The effects of time-to-completion, stopping out, transferring, and reasons for leaving college on students’ long-term retention, educational
aspirations, occupational prestige, and income (Doctoral dissertation, University of California at Los Angeles).


Bell, C. M. (2010). Graduate education attainment and salary: An examination of institutional type, major choice, gender, race/ethnicity, parental education and


Mwenda, M. N. (2010). *Underrepresented minority students in STEM doctoral programs: The role of financial support and relationships with faculty and peers*


115


Admission Council. Retrieved October 27, 2010 from

Appendix A

Variables Arranged by Blocks
Note: * indicates the predictor variable was a significant predictor of cumulative law school GPA in the third year. An iterative process was undertaken to arrive at the final result of twenty-one (21) significant predictors of the criterion variable. All variables that were significant in Round One were advanced to Round Two, and so forth until all variables that were entered into the regression equation emerged as significant predictors. A total of three rounds were used to arrive at the final finding that twenty-one significant predictors on the 2008 LSSSE survey were predictors of cumulative law school GPA.

**Round One**

**Inputs**
1. Racial or ethnic identification*
2. LSAT score*
3. Undergraduate GPA*
4. Expected student loan debt after completing law school*
5. Started law school at current institution or was a transfer student*
6. Gender
7. Age
8. International student status (yes/no)
9. Sexual orientation
10. Number of years elapsed between earning an undergraduate degree and enrolling in law school

**Between-College Characteristics**
1. Law school size*
2. Law school affiliation (public/private)

**Faculty-Student Interaction**
1. Whether the student has done, plan to do, do not plan to do, or is undecided on working on a legal research project with a faculty member outside of course or program requirements before the end of law school*
2. How often has the student discussed ideas from your readings or classes with faculty outside of class*
3. Quality of the student’s relationships with faculty members at the law school
4. Quality of the student’s relationships with administrative staff and offices at the law school
5. How often has the student used email to communicate with a faculty member
6. How often has the student discussed assignments with a faculty member
7. How often has the student talked about career plans or job search activities with a faculty member or advisor
8. How often has the student received prompt feedback (written or oral) from faculty on your academic performance
9. How often has the student worked harder than you thought you could to meet faculty members’ standards or expectations
10. How often has the student worked with faculty members on activities other than coursework (committees, orientation, student life activities, etc.)
Whether the student has done, plan to do, do not plan to do, or is undecided on participating in a student-faculty committee before the end of law school

**Academic Involvement**

1. How often has the student asked questions in class or contributed to class discussions*
2. How often has the student prepared two or more drafts of a paper or assignment before turning it in*
3. How often has the student come to class without completing readings or assignments*
4. How often has the student discussed ideas from your readings or classes with others outside of class (students, family members, coworkers, etc.)*
5. How often has the student included diverse perspectives (different races, religions, sexual orientations, etc.) in class discussions or writing assignments*
6. Whether the student has done the following activity or not before the end of law school:
   a. Law journal*
   b. Moot court*
   c. Being a student organization leader*
   d. Clinical internship or field experience
   e. Volunteer or pro bono work
   f. Study abroad
   g. Student organization
   h. Joint degree program (yes/no)
7. Number of hours per week doing pro bono legal work (not required for a class)
8. Number of hours per week working for pay in a law-related job
9. Number of written papers of fewer than 5 pages during the current year
10. Number of written papers between 5 and 19 pages during the current year
11. Number of written papers of 20 pages or more during the current year
12. Number of hours spent per week preparing for class by reading assigned textbooks, online class reading, and other course materials
13. Number of hours spent per week preparing for class by doing activities other than reading required texts (e.g. studying, writing, doing homework, trial preparation)
14. How often has the student worked on a paper or project that required integrating ideas or information from various sources
15. How often has the student put together ideas or concepts from different courses when completing assignments or during class discussions
16. How often has the student participated in a clinical or pro bono project as part of a course or for academic credit
17. How often has the student used an electronic medium (listserv, chat group, internet, instant messaging, etc.) to discuss or complete an assignment

**Non-Academic Involvement**

1. Number of hours per week working for pay in a non-legal job*
2. Number of hours per week reading on your own for personal enrichment
3. Number of hours per week exercising or participating in fitness activities
4. Number of hours per week providing care for dependents living with you
5. Number of hours per week commuting to class
6. Number of hours per week participating in community organizations

**Student-Student Interaction**
1. Number of hours per week participating in law school-sponsored activities*
2. Number of hours per week relaxing and socializing*
3. Quality of the student’s relationships with other students at the law school
4. How often has the student worked with other students on projects during class
5. How often has the student worked with classmates outside of class to prepare class assignments
6. How often has the student had serious conversations with students of a different race or ethnicity other than your own
7. How often has the student had serious conversations with students who are very different from you in terms of their religious beliefs, political opinions, or personal values

**Intermediate Educational Outcomes**
1. Satisfaction with job search help*
2. Satisfaction with the entire law school experience*
3. If given the opportunity, would the student re-attend the same law school*
4. Student’s perception of the value their law school places on:
   a. Providing the financial counseling you need to afford your education*
   b. Spending significant amounts of time studying and on academic work*
5. Student’s self-reported change in knowledge, skills and personal development in the following areas:
   a. Developing legal research skills*
   b. Learning effectively on your own*
   c. Developing clearer career goals*
   d. Developing a personal code of values and ethics*
   e. Acquiring job or work-related knowledge and skills*
   f. Acquiring a broad legal education
   g. Writing clearly and effectively
   h. Speaking clearly and effectively
   i. Thinking critically and analytically
   j. Using computing and information technology
   k. Working effectively with others
   l. Understanding yourself
   m. Understanding people of other racial and ethnic backgrounds
   n. Solving complex real-world problems
   o. Contributing to the welfare of your community
   p. Developing a deepened sense of spirituality during law school
6. Satisfaction with academic advising and planning
7. Satisfaction with career counseling
8. Satisfaction with personal counseling
9. Satisfaction with financial aid advising
10. Satisfaction with library assistance
11. Satisfaction with computing technology
12. Extent to which examinations have challenged the student to do their best work
13. Degree to which coursework emphasized memorizing facts, ideas, or methods from your courses and readings so you can repeat them in the same form
14. Degree to which coursework emphasized analyzing the basic elements of an idea, experience, or theory, such as examining a particular case or situation in depth, and considering its components
15. Degree to which coursework emphasized synthesizing and organizing ideas, information, or experiences into new, more complex interpretations and relationships
16. Degree to which coursework emphasized making judgments about the value of information, arguments, or methods, such as examining how others gathered and interpreted data and assessing the soundness of their conclusions
17. Degree to which coursework emphasized applying theories or concepts to practical problems or in new situations
18. Student’s perception of the value their law school places on:
   a. Attending campus events and activities (special speakers, cultural events, symposia, etc.)
   b. Encouraging contact among students from different economic, social, sexual orientation, and racial or ethnic backgrounds
   c. Encouraging the ethical practice of the law
   d. Helping you cope with your non-academic responsibilities (work, family, etc.)
   e. Providing the support you need to help you succeed academically
   f. Providing the support you need to succeed in your employment search
   g. Providing the support you need to thrive socially
   h. Using computers in academic work

Outcome
Cumulative law school GPA assessed during the third year of law school

Round Two
Inputs
1. Racial or ethnic identification*
2. LSAT score*
3. Undergraduate GPA*
4. Expected student loan debt after completing law school*
5. Started law school at current institution or was a transfer student*

Between-College Characteristics
1. Law school size*

Faculty-Student Interaction
1. Whether the student has worked on a legal research project with a faculty member outside of course or program requirements or not before the end of law school*
2. How often has the student discussed ideas from your readings or classes with faculty outside of class
Academic Involvement
1. How often has the student asked questions in class or contributed to class discussions*
2. How often has the student prepared two or more drafts of a paper or assignment before turning it in*
3. How often has the student come to class without completing readings or assignments*
4. Whether the student has participated or not in law journal*
5. Whether the student has participated or not in moot court*
6. Whether the student has been a student organization leader*
7. How often has the student included diverse perspectives (different races, religions, sexual orientations, etc.) in class discussions or writing assignments
8. How often has the student discussed ideas from your readings or classes with others outside of class (students, family members, coworkers, etc.)

Non-Academic Involvement
1. Number of hours per week working for pay in a non-legal job*

Student-Student Interaction
1. Number of hours per week participating in law school-sponsored activities*
2. Number of hours per week relaxing and socializing*

Intermediate Educational Outcomes
1. Satisfaction with job search help*
2. Satisfaction with the entire law school experience*
3. If given the opportunity, would the student re-attend the same law school*
4. Student’s perception of the value their law school places on providing the financial counseling they need to afford your education*
5. Student’s perception of the value their law school places on spending significant amounts of time studying and on academic work
6. Student’s self-reported change in knowledge, skills and personal development in the following areas:
   a. Developing legal research skills*
   b. Learning effectively on your own*
   c. Developing clearer career goals
   d. Developing a personal code of values and ethics
   e. Acquiring job or work-related knowledge and skills

Outcome
Cumulative law school GPA assessed during the third year of law school
Round Three
Note: all 21 variables tested in this round were significant predictors. This was the final round of regression analysis.

Inputs
1. Racial or ethnic identification*
2. LSAT score*
3. Undergraduate GPA*
4. Expected student loan debt after completing law school*
5. Started law school at current institution or was a transfer student*

Between-College Characteristics
1. Law school size*

Faculty-Student Interaction
1. Whether the student has worked on a legal research project with a faculty member outside of course or program requirements or not before the end of law school*

Academic Involvement
1. How often has the student asked questions in class or contributed to class discussions*
2. How often has the student prepared two or more drafts of a paper or assignment before turning it in*
3. How often has the student come to class without completing readings or assignments*
4. Whether the student has participated or not in law journal*
5. Whether the student has participated or not in moot court*

Non-Academic Involvement
1. Number of hours per week working for pay in a non-legal job*

Student-Student Interaction
1. Number of hours per week participating in law school-sponsored activities*
2. Number of hours per week relaxing and socializing*

Intermediate Educational Outcomes
1. Satisfaction with job search help*
2. Satisfaction with the entire law school experience*
3. If given the opportunity, would the student re-attend the same law school*
4. Student’s perception of the value their law school places on providing the financial counseling you need to afford your education*
5. Student’s self-reported change in knowledge, skills and personal development in developing legal research skills*
6. Student’s self-reported change in knowledge, skills and personal development in learning effectively on your own*

Outcome
Cumulative law school GPA assessed during the third year of law school
Appendix B

2008 Law School Survey of Student Engagement (LSSSE) Survey Instrument
## Law School Survey of Student Engagement 2008

Please mark your answers in the boxes. Examples: ☑ or ☐. In the larger boxes, please print your responses.

### 2. In your experience at your law school during the current school year, about how often have you done each of the following?

<table>
<thead>
<tr>
<th>Activity</th>
<th>Very Often</th>
<th>Sometimes</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Asked questions in class or contributed to class discussions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Prepared two or more drafts of a paper or assignment before turning it in</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Worked on a paper or project that required integrating ideas or information from various sources</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Included diverse perspectives (different races, religions, sexual orientations, genders, political beliefs, etc.) in class discussions or writing assignments</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Came to class without completing readings or assignments</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. Worked with other students on projects during class</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. Worked with classmates outside of class to prepare class assignments</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. Put together ideas or concepts from different courses when completing assignments or during class discussions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. Participated in a clinical or pro bono project as part of a course or for academic credit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>j. Used an electronic medium (listserve, chat group, Internet, instant messaging, etc.) to discuss or complete an assignment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>k. Used e-mail to communicate with a faculty member</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>l. Discussed assignments with a faculty member</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>m. Talked about career plans or job search activities with a faculty member or advisor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n. Discussed ideas from your readings or classes with faculty members outside of class</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>o. Received prompt feedback (written or oral) from faculty on your academic performance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>p. Worked harder than you thought you could to meet faculty members’ standards or expectations</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Activity</th>
<th>Very Often</th>
<th>Sometimes</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>q. Worked with faculty members on activities other than coursework (committees, orientation, student life activities, etc.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>r. Discussed ideas from your readings or classes with others outside of class (students, family members, coworkers, etc.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>s. Had serious conversations with students of a different race or ethnicity than your own</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>t. Had serious conversations with students who are very different from you in terms of their religious beliefs, political opinions, or personal values</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 3. Mark the box that best represents the extent to which your examinations during the current school year have challenged you to do your best work.

<table>
<thead>
<tr>
<th>Difficulty</th>
<th>Very Little</th>
<th>Very Much</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>☐</td>
<td>☑</td>
</tr>
<tr>
<td>2</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>5</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>6</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>7</td>
<td>☐</td>
<td>☑</td>
</tr>
</tbody>
</table>

### 3. During the current school year, how much has your coursework emphasized the following mental activities?

<table>
<thead>
<tr>
<th>Activity</th>
<th>Very Much</th>
<th>Quite a bit</th>
<th>Some Little</th>
<th>Very Little</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Memorizing facts, ideas, or methods from your courses and readings so you can repeat them pretty much in the same form</td>
<td>☒</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>b. Analyzing the basic elements of an idea, experience, or theory, such as examining a particular case or situation in depth, and considering its components</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>c. Synthesizing and organizing ideas, information, or experiences into new, more complex, interpretations and relationships</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>d. Making judgments about the value of information, arguments, or methods, such as examining how others gathered and interpreted data and assessing the soundness of their conclusions</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>e. Applying theories or concepts to practical problems or in new situations</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
</tbody>
</table>
### Question 4
During the current school year, about how much writing will you do?

<table>
<thead>
<tr>
<th>Hours per Week</th>
<th>10+</th>
<th>7-9</th>
<th>4-6</th>
<th>1-3</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of written papers of 20 pages or more</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Number of written papers between 5 and 19 pages</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Number of written pages of fewer than 5 pages</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

### Question 5
Which of the following have you done or plan to do at your law school before you graduate? (Mark only one response for each item.)

- Clinical internship or field experience
- Volunteer or pro bono work
- Student-faculty committee
- Work on a legal research project with a faculty member outside of course or program requirements
- Study abroad
- Law journal member
- Most court team
- Law student organization member
- Law student organization leader

### Question 6
In your experience at your law school, how satisfied are you with each of these areas?

<table>
<thead>
<tr>
<th>Area</th>
<th>Very unsatisfied</th>
<th>Unsatisfied</th>
<th>Satisfied</th>
<th>Very satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic advising and planning</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Career counseling</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Personal counseling</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Job search help</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Financial aid advising</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Library assistance</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Computing technology</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

### Question 7
During the current school year, about how many hours do you spend in a typical 7-day week doing each of the following?

<table>
<thead>
<tr>
<th>Hours per Week</th>
<th>31-35</th>
<th>More than 35</th>
</tr>
</thead>
<tbody>
<tr>
<td># of hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>per week</td>
<td>21-25</td>
<td>16-20</td>
</tr>
<tr>
<td>11-15</td>
<td>6-10</td>
<td>1-5</td>
</tr>
<tr>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Reading assigned textbooks, online class reading, and other course materials
- Preparing for class and clinical courses other than reading (studying, writing, doing homework, trial preparation, and other academic activities)
- Reading on your own (not assigned) for personal or academic enrichment
- Legal pro bono work not required for a class or clinical course
- Working for pay in a law-related job
- Working for pay in a nonlegal job
- Participating in law school-sponsored activities (organizations, journal, moot court, student bar association, etc.)
- Exercising or participating in fitness activities
- Relaxing and socializing (watching TV, partying, etc.)
- Providing care for dependents living with you (parents, children, spouse, etc.)
- Commuting to class (driving, walking, etc.)
- Participating in community organizations (police, religious groups, etc.)
8. To what extent does your law school emphasize each of the following?

<table>
<thead>
<tr>
<th></th>
<th>Very Much</th>
<th>Quite a Bit</th>
<th>Some</th>
<th>Very Little</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Spending significant amounts of time studying and on academic work</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Encouraging the ethical practice of the law</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Providing the support you need to help you succeed academically</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Encouraging contact among students from different economic, social, sexual orientation, and racial or ethnic backgrounds</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Providing the support you need to succeed in your employment search</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. Helping you cope with your non-academic responsibilities (work, family, etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. Providing the support you need to thrive socially</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. Attending campus events and activities (special speakers, cultural events, symposia, etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. Providing the financial counseling you need to afford your education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>j. Using computers in academic work</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9. Mark the box that best represents the quality of your relationships with people at your law school.

<table>
<thead>
<tr>
<th>Relationships with:</th>
<th>a. Other students</th>
<th>b. Faculty members</th>
<th>c. Administrative staff and offices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friendly, supportive, sense of belonging</td>
<td>![Box Options]</td>
<td>![Box Options]</td>
<td>![Box Options]</td>
</tr>
<tr>
<td>Available, helpful, sympathetic</td>
<td>![Box Options]</td>
<td>![Box Options]</td>
<td>![Box Options]</td>
</tr>
<tr>
<td>Helpful, considerate, flexible</td>
<td>![Box Options]</td>
<td>![Box Options]</td>
<td>![Box Options]</td>
</tr>
</tbody>
</table>

10. To what extent has your experience at your law school contributed to your knowledge, skills, and personal development in the following areas?

<table>
<thead>
<tr>
<th></th>
<th>Very Much</th>
<th>Quite a Bit</th>
<th>Some</th>
<th>Very Little</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Acquiring a broad legal education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Acquiring job or work-related knowledge and skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Writing clearly and effectively</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Speaking clearly and effectively</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Thinking critically and analytically</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. Using computers and information technology</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. Developing legal research skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. Working effectively with others</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. Learning effectively on your own</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>j. Understanding yourself</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>k. Understanding people of other racial and ethnic backgrounds</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>l. Solving complex real-world problems</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>m. Developing clearer career goals</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n. Developing a personal code of values and ethics</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>o. Contributing to the welfare of your community</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>p. Developing a deeper sense of spirituality</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

11. How would you evaluate your entire educational experience at your law school?
- Excellent
- Fair
- Good
- Poor

12. If you could start over again, would you go to the same law school you are now attending?
- Definitely yes
- Probably no
- Probably yes
- Definitely no

13. Write in the year of your birth: 19

14. Your sex:
- Male
- Female
- I prefer not to respond

15. Are you an international student or foreign national?
- Yes
- No

16. What is your racial or ethnic identification? (Mark only one.)
- American Indian or Native American
- Asian, Asian American, or Pacific Islander
- Black or African American
- White (not Hispanic)
- Mexican or Mexican American
- Puerto Rican
- Other Hispanic or Latino
- Multiracial
- Other
- I prefer not to respond
17. What is your sexual orientation?
- [ ] Bisexual
- [ ] Heterosexual
- [ ] Gay or lesbian
- [ ] I prefer not to respond

18. Write in the number of credit hours in which you enrolled during the current academic year.
   - Fall 2007 semester: [ ] credit hours
   - Spring 2008 semester: [ ] credit hours

19. Thinking about the current academic term, how would you characterize your enrollment?
   - [ ] Full-time
   - [ ] Less than full-time
   - [ ] Day division
   - [ ] Evening division

20. Are you participating in a joint-degree program?
- [ ] No
- [ ] Yes. Specify which program:
  - [ ] J.D./M.A.
  - [ ] J.D./M.P.A.
  - [ ] J.D./M.B.A.
  - [ ] J.D./M.P.P.
  - [ ] Other: [ ]

21. What is your current classification in your J.D. program?
- [ ] 1L
- [ ] 2L
- [ ] 3L
- [ ] 4L
- [ ] Other, specify: [ ]

22. Did you begin law school at your current institution or elsewhere?
- [ ] Started here
- [ ] Started elsewhere

23. How many years elapsed between earning your undergraduate degree and enrolling in law school?
- [ ] 0
- [ ] 1-2
- [ ] 3-5
- [ ] More than 10

24. What have most of your grades been up to now at this law school?
- [ ] A
- [ ] A-
- [ ] B+
- [ ] B
- [ ] C+
- [ ] C
- [ ] B-
- [ ] C or lower

25. How much educational debt from attending law school do you expect to have upon graduation?
- [ ] $0
- [ ] $0-$20,000
- [ ] $20,001-$40,000
- [ ] $40,001-$60,000
- [ ] More than $120,000

26. Which field best describes your area(s) of legal specialization or expected area(s) of specialization?
   (Mark only one in each column.)
   - [ ] Privacy
   - [ ] Secondary
   - [ ] Specialty
   - [ ] Specialty (if applicable)
     - [ ] Alternative dispute resolution
     - [ ] Bankruptcy
     - [ ] Civil rights
     - [ ] Constitutional
     - [ ] Corporate and securities
     - [ ] Criminal
     - [ ] Education
     - [ ] Employment and labor
     - [ ] Entertainment
     - [ ] Environmental and natural resources
     - [ ] Family and juvenile
     - [ ] General practice
     - [ ] Health
     - [ ] Immigration
     - [ ] International
     - [ ] Litigation and trial
     - [ ] Military
     - [ ] Nonprofit
     - [ ] Parent and intellectual property
     - [ ] Public interest
     - [ ] Real estate
     - [ ] Sports
     - [ ] Tax
     - [ ] Trusts and estates
     - [ ] Undecided
     - [ ] Other, specify: [ ]

27. Which setting(s) best describe(s) (1) your PREFERRED work environment, and (2) your EXPECTED work environment once you graduate from law school? (Mark only one in each column.)
   (1) Preferred setting
   - [ ] Academic (professor, education agency)
   - [ ] Accounting firm
   - [ ] Business and industry (corporate counsel)
   - [ ] Government agency (federal, state)
   - [ ] Judicial clerkship
   - [ ] Legislative office
   - [ ] Military
   - [ ] Nonprofit organization
   - [ ] Private firm - small (fewer than 10 attorneys)
   - [ ] Private firm - medium (10-50 attorneys)
   - [ ] Private firm - large (more than 50 attorneys)
   - [ ] Prosecutor's office
   - [ ] Public defender's office
   - [ ] Public interest group
   - [ ] Solo practice
   - [ ] Other, specify: [ ]

   (2) Expected setting

28. What was your LSAT score?

29. What was your undergraduate grade point average?
Appendix C

University of Toledo Institutional Review Board Approval
To: Ron Opp, Ph.D. and Robert Detwiler  
Department of Educational Foundations & Leadership  

From: Mary Ellen Edwards, Ph.D., Chair  
Kamala London, Ph.D., Vice Chair  
Walter Edinger, Ph.D., Chair Designee  

Signed: [Signature]  
Date: 03/28/11  

Subject: IRB #107345  
Title: Assessing Factors Influencing Student Academic Success in Law School  

On 03/28/11, the above research was reviewed and approved as Exempt (category 4) by the Chair and Chair Designee of the University of Toledo (UT) Social Behavioral & Educational Institutional Review Board (IRB). The requirement to obtain a signed consent/authorization for use and disclosure of protected health information form has been waived as this research is determined to be minimal risk and a signed consent/authorization document would be the only record linking the subject to the data. It was determined that this waiver for signed consent/authorization will not adversely affect the rights and welfare of the participants. This action will be reported to the committee at its next scheduled meeting.  

Please Note: A consent form is not required for this study. However an Information Sheet regarding the study should be distributed to potential participants. This Information Sheet should include the name and telephone number of a contact person in case the subjects need additional information. It is also strongly encouraged that the study be explained verbally to potential subjects.  

Items Reviewed:  
- IRB Application Requesting Exempt Review  

Designated as EXEMPT RESEARCH on: 03/28/11  

Please read the following attachment detailing Principal Investigator responsibilities.
Appendix D

Pearson Product Moment Correlation Table for Factors Found to be Significant

Predictors of the Criterion Variable
<table>
<thead>
<tr>
<th></th>
<th>COMBINED GPA variable</th>
<th>COMBINED LSAT variable</th>
<th>Did you begin law school at your current institution or elsewhere?</th>
<th>How much educational debt from attending law school do you expect to have upon your graduation?</th>
<th>Are you white (non-Hispanic)?</th>
<th>Law school size</th>
</tr>
</thead>
<tbody>
<tr>
<td>** Correlation is significant at the .01 level (two-tailed)**</td>
<td>** Correlation is significant at the .05 level (two-tailed)**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMBINED GPA variable</td>
<td>1</td>
<td>.189**</td>
<td>.028</td>
<td>-.141**</td>
<td>.137**</td>
<td>-.063**</td>
</tr>
<tr>
<td>COMBINED LSAT variable</td>
<td>.189**</td>
<td>1</td>
<td>.047</td>
<td>-.124**</td>
<td>.238**</td>
<td>0.021</td>
</tr>
<tr>
<td>Did you begin law school at your current institution or elsewhere?</td>
<td>.028</td>
<td>.047</td>
<td>1</td>
<td>-.049*</td>
<td>-.028</td>
<td>0.001</td>
</tr>
<tr>
<td>How much educational debt from attending law school do you expect to have upon your graduation?</td>
<td>-.141**</td>
<td>-.124**</td>
<td>-.049*</td>
<td>1</td>
<td>-.017</td>
<td>.130**</td>
</tr>
<tr>
<td>Are you white (non-Hispanic)?</td>
<td>.137**</td>
<td>.238**</td>
<td>-.028</td>
<td>-.017</td>
<td>1</td>
<td>-.045</td>
</tr>
<tr>
<td>Law school size</td>
<td>-0.063**</td>
<td>.021</td>
<td>.001</td>
<td>.130**</td>
<td>-.045</td>
<td>1</td>
</tr>
<tr>
<td>Work on a legal research project with faculty (yes/no)</td>
<td>.040</td>
<td>.096**</td>
<td>-.015</td>
<td>-.014</td>
<td>.019</td>
<td>-.053*</td>
</tr>
<tr>
<td>Law journal member (yes/no)</td>
<td>.193**</td>
<td>.247**</td>
<td>.041</td>
<td>-.142**</td>
<td>.057*</td>
<td>-.006</td>
</tr>
<tr>
<td>COMBINED GPA variable</td>
<td>Work on a legal research project (yes/no)</td>
<td>Law journal member (yes/no)</td>
<td>Come to class without completing readings or assignments</td>
<td>Asked questions in a class or contributed to class discussions</td>
<td>Moot court team (yes/no)</td>
<td></td>
</tr>
<tr>
<td>-----------------------</td>
<td>-------------------------------------------</td>
<td>-----------------------------</td>
<td>----------------------------------------------------------</td>
<td>-------------------------------------------------------------</td>
<td>-------------------------</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.040</td>
<td>.193**</td>
<td>-.048*</td>
<td>-.015</td>
<td>.011</td>
<td></td>
</tr>
<tr>
<td>COMBINED LSAT variable</td>
<td>.096**</td>
<td>.247**</td>
<td>.119**</td>
<td>-.015</td>
<td>.057*</td>
<td></td>
</tr>
<tr>
<td>Did you begin law school at your current institution or elsewhere?</td>
<td>-.015</td>
<td>.041</td>
<td>.032</td>
<td>-.034</td>
<td>-.006</td>
<td></td>
</tr>
<tr>
<td>How much educational debt from attending law school do you expect to have upon your graduation?</td>
<td>-.014</td>
<td>-.142**</td>
<td>.037</td>
<td>-.021</td>
<td>-.016</td>
<td></td>
</tr>
<tr>
<td>Are you white (non-Hispanic)?</td>
<td>.019</td>
<td>.057*</td>
<td>-.009</td>
<td>.067**</td>
<td>-.006</td>
<td></td>
</tr>
<tr>
<td>Law school size</td>
<td>-.053*</td>
<td>-.006</td>
<td>-.004</td>
<td>-.044</td>
<td>-.082**</td>
<td></td>
</tr>
<tr>
<td>Work on a legal research project with faculty (yes/no)</td>
<td>1</td>
<td>.197**</td>
<td>-.054*</td>
<td>.174**</td>
<td>.121**</td>
<td></td>
</tr>
<tr>
<td>Law journal member (yes/no)</td>
<td>.197**</td>
<td>1</td>
<td>-.084**</td>
<td>.018</td>
<td>.006</td>
<td></td>
</tr>
</tbody>
</table>

** Correlation is significant at the .01 level (two-tailed)
* Correlation is significant at the .05 level (two-tailed)
Prepared two or more drafts of a paper or assignment before turning it in | Working for pay in a NONLEGAL job | Relaxing and socializing (watching TV, partying, exercising, etc.) | Participating in law school-sponsored activities (organizations, journal, moot court, student bar association, etc.) | Job search help
--- | --- | --- | --- | ---
COMBINED GPA variable | .009 | -.041 | .016 | .063** | .013
COMBINED LSAT variable | -.116** | -.051’ | .120** | .058’ | .007
Did you begin law school at your current institution or elsewhere? | -.021 | .006 | .012 | .041 | -.050’
How much educational debt from attending law school do you expect to have upon your graduation? | -.036 | .010 | -.034 | -.014 | -.097**
Are you white (non-Hispanic)? | -.021 | -.011 | .061’ | -.021 | -.055’
Law school size | .032 | -.027 | .032 | -.003 | -.064’
Work on a legal research project with faculty (yes/no) | .127** | .006 | -.073** | .149** | .069**
Law journal member (yes/no) | .059’ | -.094** | -.008 | .332** | .069**

** Correlation is significant at the .01 level (two-tailed)
* Correlation is significant at the .05 level (two-tailed)
<table>
<thead>
<tr>
<th></th>
<th>Contributed to: Learning effectively on your own</th>
<th>Contributed to: Developing legal research skills</th>
<th>Contributed to: Acquiring job or work-related knowledge and skills</th>
<th>If you could start over again, would you go to the same law school you are now attending?</th>
<th>How would you evaluate your entire educational experience at your law school?</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMBINED GPA variable</td>
<td>.007</td>
<td>.044</td>
<td>.031</td>
<td>.028</td>
<td>.025</td>
</tr>
<tr>
<td>COMBINED LSAT variable</td>
<td>-.028</td>
<td>-.046</td>
<td>-.023</td>
<td>.020</td>
<td>.052*</td>
</tr>
<tr>
<td>Did you begin law school at your current institution or elsewhere?</td>
<td>-.043</td>
<td>.021</td>
<td>-.036</td>
<td>-.024</td>
<td>-.035</td>
</tr>
<tr>
<td>How much educational debt from attending law school do you expect to have upon your graduation?</td>
<td>-.006</td>
<td>-.055*</td>
<td>-.061*</td>
<td>-.101**</td>
<td>-.054*</td>
</tr>
<tr>
<td>Are you white (non-Hispanic)?</td>
<td>-.020</td>
<td>-.058*</td>
<td>-.042</td>
<td>.043</td>
<td>.040</td>
</tr>
<tr>
<td>Law school size</td>
<td>.020</td>
<td>-.036</td>
<td>-.027</td>
<td>-.110**</td>
<td>-.095**</td>
</tr>
<tr>
<td>Work on a legal research project with faculty (yes/no)</td>
<td>.052*</td>
<td>.130**</td>
<td>.097**</td>
<td>.055*</td>
<td>.130**</td>
</tr>
<tr>
<td>Law journal member (yes/no)</td>
<td>.066**</td>
<td>.117**</td>
<td>.106**</td>
<td>.099**</td>
<td>.158**</td>
</tr>
</tbody>
</table>

** Correlation is significant at the .01 level (two-tailed)
* Correlation is significant at the .05 level (two-tailed)
<table>
<thead>
<tr>
<th></th>
<th>COMBINED GPA variable</th>
<th>COMBINED LSAT variable</th>
<th>Did you begin law school at your current institution or elsewhere?</th>
<th>How much educational debt from attending law school do you expect to have upon your graduation?</th>
<th>Are you white (non-Hispanic)?</th>
<th>Law school size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Come to class without completing readings or assignments</td>
<td>-.048*</td>
<td>.119**</td>
<td>.032</td>
<td>.037</td>
<td>-.009</td>
<td>-.004</td>
</tr>
<tr>
<td>Asked questions in a class or contributed to class discussions</td>
<td>-.037</td>
<td>-.015</td>
<td>-.034</td>
<td>-.021</td>
<td>.067**</td>
<td>-.044</td>
</tr>
<tr>
<td>Moot court team (yes/no)</td>
<td>.011</td>
<td>.057**</td>
<td>-.006</td>
<td>-.016</td>
<td>-.006</td>
<td>-.082**</td>
</tr>
<tr>
<td>Prepared two or more drafts of a paper or assignment before turning it in</td>
<td>.009</td>
<td>-.116**</td>
<td>-.021</td>
<td>-.036</td>
<td>-.021</td>
<td>.032</td>
</tr>
<tr>
<td>Working for pay in a NONLEGAL job</td>
<td>-.041</td>
<td>-.051*</td>
<td>.006</td>
<td>.010</td>
<td>-.011</td>
<td>-.027</td>
</tr>
<tr>
<td>Relaxing and socializing (watching TV, partying, exercising, etc.)</td>
<td>.016</td>
<td>.120**</td>
<td>.012</td>
<td>-.034</td>
<td>.061*</td>
<td>.032</td>
</tr>
<tr>
<td>Participating in law school-sponsored activities (organizations, journal, moot court, student bar association, etc.)</td>
<td>.063**</td>
<td>.058*</td>
<td>.041</td>
<td>-.014</td>
<td>-.021</td>
<td>-.003</td>
</tr>
</tbody>
</table>

** Correlation is significant at the .01 level (two-tailed)

* Correlation is significant at the .05 level (two-tailed)
<table>
<thead>
<tr>
<th>Activity</th>
<th>Work on a legal research project with faculty (yes/no)</th>
<th>Law journal member (yes/no)</th>
<th>Come to class without completing readings or assignments</th>
<th>Asked questions in a class or contributed to class discussions</th>
<th>Moot court team (yes/no)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Come to class without completing readings or assignments</td>
<td>-0.054*</td>
<td>-0.084**</td>
<td>1</td>
<td>-0.178**</td>
<td>-0.036</td>
</tr>
<tr>
<td>Asked questions in a class or contributed to class discussions</td>
<td>0.174**</td>
<td>0.018</td>
<td>-0.178**</td>
<td>1</td>
<td>0.088**</td>
</tr>
<tr>
<td>Moot court team (yes/no)</td>
<td>0.121**</td>
<td>0.006</td>
<td>-0.036</td>
<td>0.088**</td>
<td>1</td>
</tr>
<tr>
<td>Prepared two or more drafts of a paper or assignment before turning it in</td>
<td>0.127**</td>
<td>0.059*</td>
<td>-0.264**</td>
<td>0.232**</td>
<td>0.102**</td>
</tr>
<tr>
<td>Working for pay in a NONLEGAL job</td>
<td>0.006</td>
<td>-0.094**</td>
<td>0.036</td>
<td>0.033</td>
<td>-0.013</td>
</tr>
<tr>
<td>Relaxing and socializing (watching TV, partying, exercising, etc.)</td>
<td>-0.073**</td>
<td>-0.008</td>
<td>0.196**</td>
<td>-0.130**</td>
<td>-0.062**</td>
</tr>
<tr>
<td>Participating in law school-sponsored activities (organizations, journal, moot court, student bar association, etc.)</td>
<td>0.149**</td>
<td>0.332**</td>
<td>-0.010</td>
<td>0.087**</td>
<td>0.311**</td>
</tr>
</tbody>
</table>

** Correlation is significant at the .01 level (two-tailed)
* Correlation is significant at the .05 level (two-tailed)
<table>
<thead>
<tr>
<th></th>
<th>Prepared two or more drafts of a paper or assignment before turning it in</th>
<th>Working for pay in a NONLEGAL job</th>
<th>Relaxing and socializing (watching TV, partying, exercising, etc.)</th>
<th>Participating in law school-sponsored activities (organizations, journal, moot court, student bar association, etc.)</th>
<th>Job search help</th>
</tr>
</thead>
<tbody>
<tr>
<td>Come to class without completing readings or assignments</td>
<td>-.264**</td>
<td>.036</td>
<td>-.130**</td>
<td>.087**</td>
<td>-.102**</td>
</tr>
<tr>
<td>Asked questions in a class or contributed to class discussions</td>
<td>.232**</td>
<td>.033</td>
<td>-.130**</td>
<td>.087**</td>
<td>.130**</td>
</tr>
<tr>
<td>Moot court team (yes/no)</td>
<td>.102**</td>
<td>-.013</td>
<td>-.062**</td>
<td>.311**</td>
<td>.027</td>
</tr>
<tr>
<td>Prepared two or more drafts of a paper or assignment before turning it in</td>
<td>1</td>
<td>-.024</td>
<td>-.174**</td>
<td>.057**</td>
<td>.070**</td>
</tr>
<tr>
<td>Working for pay in a NONLEGAL job</td>
<td>-.024</td>
<td>1</td>
<td>-.027</td>
<td>-.043</td>
<td>-.001</td>
</tr>
<tr>
<td>Relaxing and socializing (watching TV, partying, exercising, etc.)</td>
<td>-.174**</td>
<td>-.027</td>
<td>1</td>
<td>-.063**</td>
<td>-.007</td>
</tr>
<tr>
<td>Participating in law school-sponsored activities (organizations, journal, moot court, student bar association, etc.)</td>
<td>.057**</td>
<td>-.043</td>
<td>-.063**</td>
<td>1</td>
<td>.030</td>
</tr>
</tbody>
</table>

** Correlation is significant at the .01 level (two-tailed)
* Correlation is significant at the .05 level (two-tailed)
<table>
<thead>
<tr>
<th>Activity</th>
<th>Contributed to: Learning effectively on your own</th>
<th>Contributed to: Developing legal research skills</th>
<th>Contributed to: Acquiring job or work-related knowledge and skills</th>
<th>If you could start over again, would you go to the same law school you are now attending?</th>
<th>How would you evaluate your entire educational experience at your law school?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Come to class without completing readings or assignments</td>
<td>-0.108**</td>
<td>-0.085**</td>
<td>-0.089**</td>
<td>-0.076**</td>
<td>-0.151**</td>
</tr>
<tr>
<td>Asked questions in a class or contributed to class discussions</td>
<td>0.158**</td>
<td>0.120**</td>
<td>0.161**</td>
<td>0.099**</td>
<td>0.204**</td>
</tr>
<tr>
<td>Moot court team (yes/no)</td>
<td>0.038</td>
<td>0.092**</td>
<td>0.125**</td>
<td>0.080**</td>
<td>0.120**</td>
</tr>
<tr>
<td>Prepared two or more drafts of a paper or assignment before turning it in</td>
<td>0.154**</td>
<td>0.156**</td>
<td>0.177**</td>
<td>0.114**</td>
<td>0.143**</td>
</tr>
<tr>
<td>Working for pay in a NONLEGAL job</td>
<td>-0.028</td>
<td>-0.050'</td>
<td>-0.057'</td>
<td>-0.044</td>
<td>-0.053'</td>
</tr>
<tr>
<td>Relaxing and socializing (watching TV, partying, exercising, etc.)</td>
<td>-0.031</td>
<td>-0.044</td>
<td>-0.001</td>
<td>0.022</td>
<td>0.040</td>
</tr>
<tr>
<td>Participating in law school-sponsored activities (organizations, journal, moot court, student bar association, etc.)</td>
<td>0.057'</td>
<td>0.135**</td>
<td>0.130**</td>
<td>0.104**</td>
<td>0.158**</td>
</tr>
</tbody>
</table>

** Correlation is significant at the .01 level (two-tailed)
* Correlation is significant at the .05 level (two-tailed)
<table>
<thead>
<tr>
<th>Job search help</th>
<th>COMBINED GPA variable</th>
<th>COMBINED LSAT variable</th>
<th>Did you begin law school at your current institution or elsewhere?</th>
<th>How much educational debt from attending law school do you expect to have upon your graduation?</th>
<th>Are you white (non-Hispanic)?</th>
<th>Law school size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.013</td>
<td>.007</td>
<td>-.050*</td>
<td>-.097**</td>
<td>-.055*</td>
<td>-.064*</td>
</tr>
<tr>
<td>Contributed to: Learning effectively on your own</td>
<td>.007</td>
<td>-.028</td>
<td>-.043</td>
<td>-.006</td>
<td>-.020</td>
<td>.020</td>
</tr>
<tr>
<td>Contributed to: Developing legal research skills</td>
<td>.044</td>
<td>-.046</td>
<td>.021</td>
<td>-.055*</td>
<td>-.058*</td>
<td>-.036</td>
</tr>
<tr>
<td>Contributed to: Acquiring job or work-related knowledge and skills</td>
<td>.031</td>
<td>-.023</td>
<td>-.036</td>
<td>-.061*</td>
<td>.042</td>
<td>-.027</td>
</tr>
<tr>
<td>If you could start over again, would you go to the same law school you are now attending?</td>
<td>.028</td>
<td>.020</td>
<td>-.024</td>
<td>-.101**</td>
<td>.043</td>
<td>-.110**</td>
</tr>
<tr>
<td>How would you evaluate your entire educational experience at your law school?</td>
<td>.025</td>
<td>.052*</td>
<td>-.035</td>
<td>-.054*</td>
<td>0.04</td>
<td>-.095**</td>
</tr>
</tbody>
</table>

** Correlation is significant at the .01 level (two-tailed)
* Correlation is significant at the .05 level (two-tailed)
<table>
<thead>
<tr>
<th>Activity</th>
<th>Job search help</th>
<th>Contributed to: Learning effectively on your own</th>
<th>Contributed to: Developing legal research skills</th>
<th>Contributed to: Acquiring job or work-related knowledge and skills</th>
<th>If you could start over again, would you go to the same law school you are now attending?</th>
<th>How would you evaluate your entire educational experience at your law school?</th>
<th>Moot court team (yes/no)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work on a legal research project with faculty (yes/no)</td>
<td>.069*</td>
<td>.052*</td>
<td>.130*</td>
<td>.097*</td>
<td>.055*</td>
<td>.130*</td>
<td>.027</td>
</tr>
<tr>
<td>Law journal member (yes/no)</td>
<td>.069*</td>
<td>.066**</td>
<td>-.085**</td>
<td>.106**</td>
<td>.099**</td>
<td>.158**</td>
<td>.038</td>
</tr>
<tr>
<td>Come to class without completing readings or assignments</td>
<td>-.102**</td>
<td>-.108**</td>
<td>.120**</td>
<td>-.089**</td>
<td>-.076**</td>
<td>.099**</td>
<td>.092**</td>
</tr>
<tr>
<td>Asked questions in a class or contributed to class discussions</td>
<td>.130**</td>
<td>.117**</td>
<td>.161**</td>
<td>.125**</td>
<td>.080**</td>
<td>.204**</td>
<td></td>
</tr>
</tbody>
</table>

** Correlation is significant at the .01 level (two-tailed)
* Correlation is significant at the .05 level (two-tailed)
<table>
<thead>
<tr>
<th>Job search help</th>
<th>Prepared two or more drafts of a paper or assignment before turning it in</th>
<th>Working for pay in a NONLEGAL job</th>
<th>Relaxing and socializing (watching TV, partying, exercising, etc.)</th>
<th>Participating in law school-sponsored activities (organizations, journal, moot court, student bar association, etc.)</th>
<th>Job search help</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job search help</td>
<td>.070**</td>
<td>-.001</td>
<td>-.007</td>
<td>.030</td>
<td>1</td>
</tr>
<tr>
<td>Contributed to:</td>
<td>Learning effectively on your own</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.154**</td>
<td>-.028</td>
<td>-.031</td>
<td>.057**</td>
<td>.180**</td>
</tr>
<tr>
<td>Contributed to:</td>
<td>Developing legal research skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.156**</td>
<td>-.050’</td>
<td>-.044</td>
<td>.135**</td>
<td>.229**</td>
</tr>
<tr>
<td>Contributed to:</td>
<td>Acquiring job or work-related knowledge and skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.177**</td>
<td>-.057’</td>
<td>-.001</td>
<td>.130**</td>
<td>.369**</td>
</tr>
<tr>
<td>If you could start over again, would you go to the same law school you are now attending?</td>
<td>.114**</td>
<td>-.044</td>
<td>.022</td>
<td>.104**</td>
<td>.387**</td>
</tr>
<tr>
<td>How would you evaluate your entire educational experience at your law school?</td>
<td>.143**</td>
<td>-.053*</td>
<td>0.04</td>
<td>.158**</td>
<td>.421**</td>
</tr>
</tbody>
</table>

** Correlation is significant at the .01 level (two-tailed)
* Correlation is significant at the .05 level (two-tailed)
<table>
<thead>
<tr>
<th></th>
<th>Contributed to: Learning effectively on your own</th>
<th>Contributed to: Developing legal research skills</th>
<th>Contributed to: Acquiring job or work-related knowledge and skills</th>
<th>If you could start over again, would you go to the same law school you are now attending?</th>
<th>How would you evaluate your entire educational experience at your law school?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job search help</td>
<td>.180&quot;</td>
<td>.229&quot;</td>
<td>.369&quot;</td>
<td>.387&quot;</td>
<td>.421&quot;</td>
</tr>
<tr>
<td>Contributed to: Learning effectively on your own</td>
<td>1</td>
<td>.277&quot;</td>
<td>.323&quot;</td>
<td>.233&quot;</td>
<td>.318&quot;</td>
</tr>
<tr>
<td>Contributed to: Developing legal research skills</td>
<td>.277&quot;</td>
<td>1</td>
<td>.456&quot;</td>
<td>.279&quot;</td>
<td>.359&quot;</td>
</tr>
<tr>
<td>Contributed to: Acquiring job or work-related knowledge and skills</td>
<td>.323&quot;</td>
<td>.456&quot;</td>
<td>1</td>
<td>.400&quot;</td>
<td>.520&quot;</td>
</tr>
<tr>
<td>If you could start over again, would you go to the same law school you are now attending?</td>
<td>.233&quot;</td>
<td>.279&quot;</td>
<td>.400&quot;</td>
<td>1</td>
<td>.673&quot;</td>
</tr>
<tr>
<td>How would you evaluate your entire educational experience at your law school?</td>
<td>.318&quot;</td>
<td>.359&quot;</td>
<td>.520&quot;</td>
<td>.673&quot;</td>
<td>1</td>
</tr>
</tbody>
</table>

** Correlation is significant at the .01 level (two-tailed)
* Correlation is significant at the .05 level (two-tailed)
Appendix E

Indirect Effect Variables
An iterative process was undertaken to arrive at the final result of twenty-one significant predictors of the criterion variable. All variables that were significant in Round One (twenty-nine in total) were advanced to Round Two. The twenty-one significant predictors found in Round Two were advanced to Round Three, where all of the factors entered into SPSS emerged as significant predictors of the criterion variable.

Listed below are the eight variables that, from Round 2 to 3, turned from significant predictors to non-significant predictors. These predictor variables have an indirect influence on the criterion variable.

**Indirect Effect Variables**

1. How often has the student discussed ideas from your readings or classes with faculty outside of class?
2. Whether the student has been a student organization leader or not before the end of law school.
3. How often has the student included diverse perspectives (different races, religions, sexual orientations, etc.) in class discussions or writing assignments?
4. How often has the student discussed ideas from your readings or classes with others outside of class (students, family members, coworkers, etc.)?
5. Student’s perception of the value their law school places on spending significant amounts of time studying and on academic work.
6. Student’s self-reported change in knowledge, skills and personal development in developing clearer career goals.
7. Student’s self-reported change in knowledge, skills and personal development in developing a personal code of values and ethics.
8. Student’s self-reported change in knowledge, skills and personal development in acquiring job or work-related knowledge and skills.