FOR-PROFITS EVOLVING: AN EXAMINATION OF THE CHANGING LANDSCAPE OF

FOR-PROFIT HIGHER EDUCATION

by

CHRISTEN BRADLEY LONG

(Under the Direction of Linda Renzulli)

ABSTRACT

In the past two decades, higher education in the United States has seen the advent of a new and controversial development: the introduction and growth of for-profit colleges and universities that offer four-year degrees. Despite ongoing academic and public interest (Hentschke, Lechuga, and Tierney 2010; Maggio and Smith 2010; Munitz 2000; Pusser and Doane 2001; Tooley 1999), however, questions remain about the implications of this trend. In this work, I examine some effects that the four-year degree granting FPCU population is having on the institutional environment of for-profit higher education. I answer the following sociological question about FPCUs: 'How are four-year degree granting FPCUs affecting the landscape of for-profit higher education?' by examining the ways that the growth of this population has influenced the foundings, transformations, and closures of three types of for-profit institutions. These types include 1) schools that offer four-year or graduate degrees, 2) schools that offer two-year degrees but not four-year degrees, and 3) schools that do not offer degrees. Guided by two organizational theories – population ecology and neo-institutional theory – I hypothesize about the effects that the growth of four-year degree granting for-profits

will have on all for-profit institutions of higher education. I test these hypotheses using a national longitudinal dataset that includes information on all institutions of higher education in the United States that operated between the years of 1987 and 2010. While more research is needed on the effects of the for-profit system on higher education as a whole, the results reported herein represent an important contribution to the literature on for-profit higher education. The population of postsecondary for-profit schools has undergone massive changes in the past few decades, and the patterns I find in this work as well as the passage of new laws and regulations suggest that this high rate of innovation within the organizational environment will continue in the coming years. By understanding the true state of for-profit higher education over the past few decades, however, we will have a better grasp on what the future will hold for these schools and what this will mean for the American postsecondary educational system.

INDEX WORDS: Higher Education, For-Profit Colleges and Universities, Organizational Theory, Foundings, Transformations, Closures

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DEDICATION

To my family: thank you for everything.

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CHAPTER 1

Introduction: For Knowledge or For-Profit? For-Profit Colleges and Universities in the Higher Education Marketplace

"[T]here's an emphasis on "the stockholders expect this" or whatever... And they want investors to see that the company is doing well. That's quite a foreign thing for most people in academia'" (Lechuga 2008 : 287).

Until the last twenty years or so, the concept of *higher education* was generally understood to encompass a number of familiar types of post-secondary institutions, including community colleges, liberal arts colleges, state colleges, and research universities. This familiar definition has changed, however, with the introduction and rapid expansion of a new type of school in the marketplace: the four-year degree granting for-profit college or university. There is no doubt that for-profit colleges and universities (FPCUs) offering bachelor's degrees and/or post graduate degrees are a quickly growing segment of higher education; nationally, five percent of all bachelor's degrees and seven percent of all graduate degrees are earned by students in the for-profit sector, up from one percent just ten years earlier (Baum and Payea 2011). While small for-profit schools offering mainly non-degree certificate programs have operated throughout the history of the United States, this contemporary for-profit model has garnered recent interest due to its increasing scale and prevalence.

The dramatic rise of four-year degree granting for-profit institutions has been driven to a significant extent by chains of schools operated by publically traded corporate education management companies. The largest and arguably best known of these corporations is Apollo Group, owner of the University of Phoenix system. The 2009 annual report to Apollo Group shareholders offers a good indicator of the size, growth, and influence of the corporate for-profit system: according to the report, University of Phoenix schools educated a record 443,000 students in that year. In just twelve months, average enrollment at the University of Phoenix increased by twenty-one percent over 2008, and the company netted a profit of almost six million dollars (Apollo Group 2009). While there have been signs in the past two years that this trend is slowing (Luzer 2011), there is no doubt that the growth of four-year degree granting FPCUs has influenced the post-secondary for-profit sector. Despite ongoing academic and public interest (Hentschke, Lechuga, and Tierney 2010; Maggio and Smith 2010; Munitz 2000; Pusser and Doane 2001; Tooley 1999), however, questions remain about the real implications of the introduction and growth of four-year degree granting FPCUs for the for-profit higher education system (Kinser 2007).

In this study, I examine some effects that the entrance and growth of the four-year degree granting FPCU population is having on the institutional environment of for-profit higher education by answering a heretofore unexamined sociological question about FPCUs: How are four-year degree granting FPCUs affecting the landscape of for-profit higher education? I address this query by examining the ways that the growth of this population has influenced the foundings, transformations, and closures of all three types of for-profit institutions: 1) schools that offer four-year or graduate degrees, 2) schools that offer two-year degrees but not four-year degrees, and 3) schools that do not offer degrees. For this dissertation, I use a longitudinal census dataset of colleges and universities in the United States to examine the development of FPCUs over time and the ways that the introduction and rapid growth of four-year degree

granting for-profit institutions has affected the institutional environment of for-profit education in the United States. I ask a few related questions: (1) How does the introduction of four-year FPCUs affect the foundings of each type of for-profit institution? (2) How do environmental and organizational characteristics affect the likelihood of transformation by different types of forprofits? and (3) How does making a transformation affect the chance of survival for each type of for-profit institution?

Motivation

It is my contention that this research project is both necessary and timely because despite their current centrality in public media and governmental debate, many questions regarding for-profit institutions of higher education remain (Halperin 2012; Kutz 2010; Lewin 2010a). According to Kinser (2007), one primary reason for this seeming lack of information is that until recently, for-profit higher education has operated on the fringes of post-secondary education, and as a result this type of school has historically been ignored in most higher education research projects. This is especially the case for institutions that are outside of the traditional degree-granting college model, such as for-profit institutions that only offer vocational certificates.

Understanding the current state of for-profit higher education is important, however, in light of the growing enrollments cited above and the current dialog surrounding FPCUs. In recent years for-profit education has been denounced for poor educational outcomes (Deming, Goldin, and Katz 2012), and for the high cost and high student loan default rates (Anderson 2011) that are associated with many for-profit schools. As a result there seems to be a general backlash against for-profit schools by policy makers, but this may be based more upon rhetoric

than research. In fact, despite a call for further study by the U.S. Senate Health, Education, Labor and Pensions Committee in 2010 (2010), twenty-five states had introduced bills imposing a variety of limits on for-profit educational institutions by September of 2011, and nation-wide regulations are expected to go into effect in 2014 (National Conference of State Legislatures 2011).

At the same time, a number of researchers and government officials have made the case for for-profit education. Primarily, these supporters state that for-profit education can offer educational opportunities to traditionally underserved populations that may benefit from the streamlined curriculum and flexible schedules offered by many FPCUs (Jacobs 2011; Ruch 2001). This is not new; in fact, the enrollment of students that do not fit the traditional model has long been a focus of for-profit education. As far back as the turn of the twentieth century, scholars noted that women in particular benefited greatly from being allowed access to for-profit business schools decades before they had similar access in the non-profit sector (James 1900).

In addition, for-profit institutions of higher education, in particular non-degree granting for-profits, have provided vocational programs to students who are primarily interested in gaining trade training and/or a certificate to demonstrate knowledge required for a particular job (Morey 2004). The for-profit sector continues to be central in this market, at least in terms of the number and focus of degrees offered. Work by Cellini (2009) shows that community colleges and for-profit schools offer similar degrees and certificates, but for-profits dominate the educational market in vocational fields with the most rapid growth and demand, such as computer technology.

This debate over the pros and cons of for-profit education is highly contentious and issues such as student outcomes are extremely important, although outside of the realm of this paper. One overarching problem of this dialog, however, is a lack of clear understanding of the current state of the for-profit higher education organizational population. While the literature on postsecondary for-profit schools is growing, there is still need for work that examines the effects of the new for-profit form (four-year degree granting FPCUs) on the long-established for-profit system. Additionally, for-profit schools are often lauded for their ability to modify their programs and/or structures rapidly to meet changing market conditions and student demands (Ruch 2001; Wilson 2010), but there has been almost no research on whether making drastic transformations of this sort in fact improves the survival chances of for-profit schools. These are the two primary deficits in this literature that I address with this project.

Contribution

Along with adding to the body of knowledge about FPCUs, I also hope to contribute theoretically with this dissertation through the application of multiple organizational theories to the case of FPCUs. The emergence and drastic growth of the four-year degree granting forprofit sector over the last two decades provides a good opportunity for a current study of the ways that the introduction of a new form of organization can influence and create change in an existing population.

According to Aldrich and Ruef (2006), organizational scholars have provided extensive study into the workings of organizations, but there is less information on how these organizations come to exist, and in what form. In addition, organizational transformation is worthy of further study, but there have been challenges to conducting research that takes into

account the spatial and temporal context of organizational change (Pettigrew, Woodman, and Cameron 2001; Van de Ven and Poole 2005). For example, through a transformation, an organization could restructure in such a way as to merit a new classification. This in turn can make it difficult to judge whether or not the organization transformed or become a new organization altogether. The longitudinal dataset I use for this study, however, is well suited to conducting research on the effects of large organizational transformations. In this dataset, each school is provided with an identification number that is consistent, regardless of any status change on any variable, so each school is clearly tracked over time. For this reason, this data is particularly suited to an examination the ways that the introduction of a new type of organization can create change in an existing population.

In addition, through this work I help disentangle the effects of competition and legitimacy on three organizational processes: foundings, transformations, and failures. Organizational legitimacy is often measured through the density of an organizational form in the population because proliferation of the form is considered an indicator of its cognitive legitimacy (Hannan and Freeman 1977a). This inference has been challenged, however (Palmer and Biggart 2002), and researchers continue to discuss the conception and measurement of density-related legitimacy (Hannan and Carroll 1995; Kuilman and Li 2009). I hope to add to this vast literature through an analysis of the effects of legitimacy on the organizational processes identified above in which I include conceptualize legitimacy through density and also other potential indicators of the cognitive legitimacy of for-profit education.

Finally, I use two frameworks - institutional theory and ecological theory – that do not always lend themselves to easy synthesis (for some exceptions see Dobbin and Dowd 1997;

Haveman 1993; Renzulli 2005). One of the reasons for this is that the theories do not align on their basic explanation of what causes organizational change. The first, ecological theory, focuses on selection as a mechanism for change, and posits that the environment transforms too quickly with too many unknowns for purposeful and effective change within organizations. On the other hand, institutional theory is a theory of adaptation that attempts to explain organizational change through the structures that are adopted within organizations as they attempt to negotiate the conditions of the larger environment. The body of work using both of these theories as complementary constructs has been growing (Haveman and Rao 1997; Renzulli 2005) and my research will further demonstrate the utility of using both to structure research.

Using these two theories will allow me to explore how the organizational environment can influence a new institutional form, while at the same time being modified by the presence of this new form. I expect that sociopolitical legitimacy will be of central importance to the processes that effect the population of four-year degree granting FPCUs due to their relative youth as an organizational type (Stinchcombe 1965). Both ecological and institutional theory are concerned with the effects of legitimacy (Hannan and Freeman 1977b; Meyer and Rowan 1977), but they conceptualize its effects on organizational foundings and transformation differently. Therefore, employing ecological theory as well as institutional theory to guide all three analyses included in this research project will help me to more fully conceptualize the processes by which a new organizational form (four-year degree granting FPCUs) emerges and interacts with the organizational environment. While I argue that examining the case of forprofit higher education in particular has value, I hope this research will also speak to more

general interest in understanding how new organizational forms enter, exit, and potentially transform an established population (Aldrich and Ruef 2006).

Plan of the Dissertation

The three research questions described above about the foundings, transformations, and closures of for-profit institutions guide the organization of this dissertation. Taken together, the analyses presented below examine multiple effects of the new population of fouryear degree granting for-profit colleges and universities on the established for-profit educational environment. I begin, however, by first placing my analysis within the timeline of for-profit higher education with a discussion of the history of this type of schooling in Chapter 2. This chapter also includes a description of the current form and prevalence of for-profit postsecondary institutions in the United States, including current demographics. In Chapter 3 I describe the data and methodology that I use throughout this dissertation. I then proceed with my three distinct but related analyses of the factors that influence aspects of the postsecondary for-profit population.

Using multiple organizational theories, I examine foundings of for-profit schools of higher education in Chapter 4. Next, the analysis in Chapter 5 tests the hypothesis that the introduction four-year degree granting for-profits has influenced the likelihood that a for-profit school will make a transformation to its degree granting status (i.e. a change from offering only non-degree certificates to offering two-year degrees). I analyze the effects of these transformations on the survival chances of for-profit higher education institutions in Chapter 6. The final chapter (7) includes a discussion of the overall patterns in for-profit education that are apparent through the analyses included in this dissertation. I also comment upon the new laws

and regulations that will have a strong influence on for-profit higher education in the coming years, and provide a few predictions on possible responses by the for-profit system. Finally, I suggest directions for future research that would lead to a more comprehensive understanding of for-profit institutions and their place in the larger field of American higher education.

CHAPTER 2

The History and Current State of For-Profit Higher Education

Due to current public interest (and outcry) it may seem that for-profit schools represent a recent development in higher education. In actuality, however, the roots of market-based education can be traced as far back as Greek society in the fifth century, B.C. (Bennett, Lucchesi, and Vedder 2010). In the United States, the earliest forms of for-profit education begin during the colonial era, and postsecondary options have been present since the 1700s. In the following sections I present the history and current state of American for-profit higher education in order to ground my discussion of today's for-profit educational system in the larger evolution of this form of higher education. Understanding this evolution is especially important in light of today's for-profit marketplace, as the current movement toward more traditional models is highly controversial, and a significant change from early for-profit forms. *Eras of American For-Profit Higher Education*

The history of for-profit higher education in the United States can be described in terms of a number of distinct eras (see Table 2.1), during which the for-profit system developed many of the forms and characteristics that still define it today (Kinser 2006; Knepper 1941). For higher education, the development era occurred during the early 1800s, although as mentioned above, for-profit primary and secondary education was established over a century earlier. During the eighteenth century, one-on-one instruction in skills such as bookkeeping evolved

into grammar schools that taught practical subjects such as accounting and business (Hayes and

Jackson 1935) in order to prepare students for careers in trade and mercantilism (Seybolt

1971). As this was occurring, dissatisfaction with the available advanced education options

began to plant the seeds of a for-profit higher education system.

| Timeline of U.S. For-Profit Higher Education Development | | | | | |
|--|---|---|--|--|--|
| | | | | | |
| Era Formative Era | <i>Years</i> late 1400s - early 1800s | <i>Description</i> First text books available; English grammar schools appear in the U.S.; Individual instructors offer tutoring in a variety of applied subjects | | | |
| Development Era | 1820s - 1850s | First for-profit higher education schools opened; Early business curriculums developed | | | |
| Growth Era | 1850s - 1890s | For-profit colleges become the almost exclusive providers of business and agricultural science education; Fast growth of this type of school | | | |
| Competition Era | 1890s - 1944 | Public and land grant secondary schools start to offer vocational and business education and begin to seriously compete with for-profit schools; the 19th century business college model is considered in decline | | | |
| Regulation Era | 1944 - 1992 | Passage of the G.I. Bill and definition of for-profits as eligible institutions for the education benefits offered new student and funding sources to for-profits; First accreditation requirements put into place and regulation by the federal government expands; For-profits seem to be losing the competitive battle to the subsidized public system | | | |
| Wall Street Era | 1992 - present | Huge expansion of publically owned corporate for-profit higher education providers; Large chains of for-profit institutions form; Concerns related to student educational outcomes and loan default rates become central to the for-profit debate | | | |

Tabla 2.1

In the first decades of the nineteenth century, a sentiment was beginning to form among some teachers and scholars that early colleges and public schools were not meeting the educational needs of many young men. For example, in 1817 Pennsylvania teacher James Maginness included an appendix in his book *The Student's Assistant* that condemned the colleges of the time for graduating students that lacked practical skills and even the ability to spell, read, and write correctly (Reigner 1959). These colleges, including Harvard, William and Mary, and Yale were founded with strong religious affiliations and had rigid curriculums focused on providing classical education in subjects such as theology and philosophy (Geiger 1986). By the beginning of the nineteenth century, farmers' organizations as well as businessmen and educators were imploring colleges to include studies on the developing sciences of agriculture and economics, but very few traditional colleges were willing to transform from the classical model, especially after the Yale Report of 1828 (Veysey 1965). As a result, private, for-profit agricultural and business colleges began to form to meet this demand, creating the first system of for-profit higher education in the United States.

Similar to today, early institutions of for-profit higher education could be separated into two general types: non-degree granting trade schools and degree-granting or professional schools. Proprietary trade schools formed along a separate lineage and were founded in response to a different set of societal pressures than the business and agricultural schools mentioned above. While the origin of these trade schools is not entirely clear, it has been suggested that they grew out of an increasing interest in vocational education in combination with the manual training movement of the 1870s (Smith 1999). The founders of the manual training movement were focused mainly on the education of children, but the concept that

education in manual skills should be added to a traditional curriculum in order to meet the demands of society at the time was becoming increasingly accepted (Woodward 1969). Concurrent to this movement, the United States was experiencing a decline in apprenticeship systems (Elbaum 1989), which opened the door for school-based (as opposed to apprenticeship-based) vocational training.

One form of job training school that was a kind of prototype to the distance education for-profit institutions operating today was the correspondence school. Correspondence schools first appeared in Europe during the 1850s, but it took the social changes described above to open up the marketplace to them as well as the trade schools in the United States. In the early 1870s, the first correspondence schools were founded in both Boston and Ithaca (Bolino 1973), and the International Correspondence School founded three decades later is still operating as the education corporation Thomas Education Direct (Kinser 2006). The campus-based trade school was also developing; in 1893 A.B. Moler opened one of the first trade schools in the U.S., a barber college that is considered the predecessor of today's cosmetology schools (Jeffers 2002). It is important to note, however, that while these are examples of successful trade schools, a large number of nineteenth century non-degree granting for-profit schools closed without forming any lasting impression on the for-profit educational system. On the other hand, the private degree-granting or professional for-profit college has had a sustained influence that extends to the present time, and in fact, approximately a hundred business colleges that opened during this period are still operational (Kinser 2006). Therefore, the evolution of this type of school through the eras of for-profit higher education is easier to follow.

Along with fostering the development of trade schools as described above, the decline of the apprenticeship system was also instrumental in the establishment of business colleges during the beginning of the nineteenth century as a valid educational form. One of the primary reasons that apprenticeships became less common had to do with increases in the size of businesses at the time, which caused individual instruction in job skills to be inefficient (Reigner 1959). In response, a number of entrepreneurs created schools that offered centralized training in subjects such as bookkeeping and penmanship, and developed new methods for teaching groups of students through introductory lectures followed by practice (Knepper 1941). Programs provided by these schools also included occupational training for professions such as law, medicine and accounting (Floyd 2005). In the early 1800s, the population of for-profit schools grew further as agricultural science became highly desirable and established colleges once again failed to respond quickly to public demand (Ruch 2001). As these schools became increasingly accepted their numbers expanded, and by the mid-1850s for-profit professional colleges could be found in most major U.S. cities (Kinser 2006). For-profit schools of higher education also increased their success at this time through enrollment policies that were extremely liberal for the time. This type of school has long served the under-served as Ruch (2001) points out, providing education to women, free persons of color, and Native Americans, sometimes in the face of severe legal and social penalties.

The next era of for-profit higher education, which extended from the mid-1850s through the 1890s, was termed the "monopolistic era" by Hayes and Jackson (1935) due to the large growth of for-profit business colleges throughout the country. These institutions were the almost exclusive providers of formal business education during a time that this sort of training,

especially in new technologies such as the telegraph and typewriter, was becoming increasingly popular (Kinser 2006). As a result, they were able to increase enrollments, and many schools of the period had a national reputation (Reigner 1959). One indication of the acceptance of forprofit private schools of higher education at the time is found in the first data collection on higher education undertaken by the U.S. Bureau of Education. In this data and in early reports put out by the bureau, for-profit business schools are included as a legitimate institutional form. In fact, one of these reports, published in 1873, commends this type of school and calls it worthy of both recognition and encouragement (Knepper 1941). By 1890, there were approximately 81,000 students enrolled in over 250 for-profit colleges, a student population that was equal to more than half of the traditional college and university enrollment of 157,000 (Snyder 1993).

A great deal of this quick growth can be attributed to the college system founded by Henry B. Bryant and Henry D. Stratton. In 1853, they opened the Bryant and Stratton Mercantile College in Cleveland, and by 1865 their chain of schools had forty-four locations across the U.S. (Herrick 1904). Interestingly, Bryant and Stratton instituted many practices that are quite similar to the business models of today's corporate for-profit institutions. For example, they targeted large population centers for their campuses, and would often try to purchase and convert a business college if one already existed in the area. Curriculum and textbooks were also standardized across all campuses, and students were allowed to transfer between school locations at will (Kinser 2006). In 1866, a number of the managers in charge of particular campuses forced the dissolution of the chain because they no longer wanted to pay a

portion of their profits to Bryant and Stratton, and as a result the schools became independent entities, at least ten of which are still in operation today (Ruch 2001).

The historical heyday of for-profit higher education came to an end in the 1890s, as public institutions changed their curriculums and began to compete strongly for students. While at first there was speculation that for-profit institutions would be eclipsed by public schools and die out altogether (James 1900), this did not occur, likely due at least in part to the population surge that occurred at the beginning of the twentieth century. Not all institutional types remained successful; proprietary medical colleges, for example, disappeared, but overall the number of campuses and students enrolled in for-profit higher education continued to increase until the passage of the Smith-Hughes Act in 1917 (Miller and Hamilton 1964).

The purpose of the Smith-Hughes Act was to provide Federal financial aid for vocational and technical education (Hayward and Benson 1993). In combination with new restrictions on for-profit schools that were established by some states, the act led to the first real decline in U.S. for-profit higher education. The for-profit model became a less significant educational form in the following decades, and seemed to be losing the competitive battle to the nonprofit sector, especially during the economic collapse of the Great Depression. For-profit providers had another change of fortune in 1944, however, with the passage of the G.I. Bill (Lee and Merisotis 1990).

In its original formulation, the G.I. Bill did not include for-profit institutions as sanctioned educational options for veterans, despite strong lobbying by the for-profit sector (Petrello 1987). This changed when the issue of veterans' choice became central in some congressional debates about the bill, and most of the restrictions on the institutions that the

servicemen were allowed to attend under the legislation were lifted (Kinser 2002). Almost immediately eligibility in the student aid programs became critical to the success of a for-profit institution of higher education, a level of reliance that accelerated further after the reauthorized Higher Education Act of 1972 allowed students to use tuition subsidies such as the Pell Grant at for-profit institutions (Pusser and Harlow 2002). Even with the greater availability of funding, however, highly subsidized public institutions were increasingly marginalizing of forprofit higher education as a legitimate form. As a result, many for-profit schools that opened after the G.I. Bill and Higher Education Act were designed around the provision of short certificate programs, and focused recruitment efforts on low income individuals who enrolled with the aid of governmental financial assistance (Floyd 2005).

Similar to current concerns with the for-profit sector, critics condemned these recruitment and educational practices for creating a crisis of program dropout, student difficulty in finding employment, and high rates of default on federal student loans. During this time, the for-profit higher education system went through a number of cycles in which public concern about student aid fraud led to investigation, followed by waves of institutional purges occurring about every ten years from the 1950s to 1980s (Apling 1993; Kinser 2006).

Two main changes that occurred at the beginning of the 1990s ushered in the modern era of for-profit higher education, often known as the "Wall Street era" (Kinser 2006). The first occurred in 1992, with the passage of much stricter regulations under Title IV of the Higher Education Act. These new requirements included rules on minimum program length, recruitment techniques, admission standards, and accreditation (Floyd 2005). Subsequent to this transition, "most career colleges bore more similarity to traditional institutions adding

elements of general education, and more student services including developmental education" (Floyd 2005 : 542). At the same time, corporate organizations rose to became major players in the for-profit higher education market; these management companies include for example the Apollo Group, Kaplan Higher Education, and DeVry University (Ruch 2001). In the last two decades, this corporate ownership model has shaped current perceptions of for-profit higher education (Berg 2005; Pusser and Doane 2001), but there is still a great deal to learn about its growth and impact on the for-profit educational market.

For-Profit Colleges and Universities: Current Definitions and Characteristics

Despite a long history, it is the recent and rapid changes in the for-profit educational market that have grabbed the attention of researchers and public analysts alike (see, for example, Bennett, Lucchesi, and Vedder 2010; Cohen and Kisker 2010; Morey 2001; Tierney and Hentschke 2007). Taken as a whole, there is no question that the for-profit higher education system has seen massive increases in enrollments, and certain chains of for-profit schools have been adding campuses at a quick rate. As has long been the case with for-profit education, however, generalizations are difficult to make due to the high level of diversity within the sector (Kinser 2006), and not all type of for-profit institutions are experiencing the same level of success, a finding that is discussed in greater detail below. Nevertheless, one pattern that has become abundantly clear is that the population of students attending for-profit schools for their postsecondary education is expanding rapidly.



Figure 2.1

Source: U.S. Department of Education, NCES, HEGIS/IPEDS

Notes: 1) Large increases in years 1980-1982 are due to the addition of schools accredited by the Accrediting Commission of Career Schools and Colleges of Technology

2) Due to imputation techniques, data in years 1986 and 1987 may not be consistent with figures for other years

As Figure 2.1 shows, in the twenty years between 1989 and 2009 enrollment in for-profit

institutions grew from just over 200,000 to almost 1.9 million students. This increase is much

greater than the rest of the higher education industry; according to Bennett, et. al. (2010),

between the years of 1986 and 2008 the for-profit sector saw student enrollment grow 8.4%,

more than five times the growth rate of public colleges and universities (1.6%) and private

nonprofits (1.4%). Possibly even more remarkable than the net change in for-profit enrollment

is the current share of the higher education market that these institutions currently hold. In the

same twenty-year period mentioned above (1989-2009), the percent of post-secondary

students that were enrolled in a for-profit school increased from 1.7 to 9.1 percent, respectively

(see Figure 2.2).



Figure 2.2

Source: U.S. Department of Education, NCES, HEGIS/IPEDS; Author's Calculations

Notes: 1) Large increases in years 1980-1982 are due to the addition of schools accredited by the Accrediting Commission of Career Schools and Colleges of Technology

2) Due to imputation techniques, data in years 1986 and 1987 may not be consistent with figures for other years

The ability of for-profit institutions to increase their market share has been based upon

two major areas of growth. The first is a very recent development, and the extent to which this

pattern is occurring is still under debate. Termed the "Brazilian Effect" by Douglass (2012),

there is some evidence that traditional higher education options have not kept pace with public demand in the face of budget cuts, leading to market changes. Similar to what has taken place in a number of other countries including Brazil, Korea, and Poland, the loss of a great deal of federal and state subsidy funding, especially in recent years, has rendered the public system unable to increase the level and diversity of their programs to meet current demand (Rampell 2012). As a result, for-profit providers have moved in to fill this gap, and in the coming years students that might have otherwise attended traditional colleges and universities may choose a for-profit education instead (Douglass 2012), a proposition that is especially concerning to community college leaders (Zeiss 1998).

The second area of for-profit growth is not in question, however, and represents the main way that these institutions have been able to increase enrollments at such a high rate: the provision of higher education to students that have been historically underserved (Bennett, Lucchesi, and Vedder 2010). As Figure 2.3 shows, one population that for-profits have targeted with seeming success is older, non-traditional students. In 2008, over sixty percent of students at for-profit schools were older than 24, while public 4-year institutions showed the inverse age distribution, with over sixty percent of students falling within the traditional age range of 19-23 (National Center for Educational Statistics 2009). Even community colleges had a higher proportion of traditional students at 41.0 percent, although these numbers are much closer.

Along with serving older students, postsecondary for-profits have also been able to enroll larger proportions of racial and ethnic minority students than traditional colleges and universities. In 2008, both Black and Latino students were more likely to attend a for-profit institution than any other type (see Figure 2.4). In fact, in that year Black and Latino students

made up over 45 percent of the total for-profit enrollment, as opposed to less than thirty percent in any other sector (National Center for Educational Statistics 2009). In addition, forprofit schools have enrolled a higher proportion of female as opposed to male students than is seen in traditional institutions. Between 1986 and 2007, the number of female students that attended for-profit schools grew at an annual rate of 9.6 percent, while male enrollment grew by only 5.9 percent. As a result, by 2007 women made up 64 percent of the for-profit student population, as compared to 57 and 58 percent in public and private institutions, respectively (Bennett, Lucchesi, and Vedder 2010).



Figure 2.3

Source: U.S. Department of Education, NCES, IPEDS



Figure 2.4

Source: U.S. Department of Education, NCES, IPEDS

While the patterns in for-profit higher education enrollment discussed above can have some critical implications for the students that are attending these schools (Lynch, Engle, and Cruz 2010), it is also important to note that there are also a number of ways that for-profit student populations resemble those at traditional schools. Primarily, as is the case in traditional schools, undergraduates outnumber graduate students by a large amount (87 versus 13 percent in 2008), a proportion that falls between public and private nonprofit school statistics (see Figure 2.5). In addition, as Figure 2.6 shows, for-profit students are actually more likely than students in any other sector to be attending school full time, a finding that may have to do with the flexible scheduling options that are often available at for-profit institutions (Bailey, Badway, and Gumport 2001).
In general, then, the descriptive statistics presented above paint an interesting picture of the students that are attending for-profit institutions of higher education. On the one hand, enrollments at for-profit schools are comprised to a great extent by non-traditional and/or underserved student populations in terms of age, race/ethnicity, gender, or some combination of the three. On the other hand, many of these students are enrolling in undergraduate programs and taking a full load of classes, which runs contrary to the image of for-profit schools as quite divergent from traditional educational functions and missions (Zamani-Gallaher 2004). In many for-profits today, especially institutions that grant four-year degrees, the predominant model seems to be a more traditional school format than was historically the case, but serving non-traditional students.



Figure 2.5

Source: U.S. Department of Education, NCES, IPEDS; Author Calculations



Figure 2.6 Source: U.S. Department of Education, NCES, IPEDS; Author Calculations

The increasing influence of for-profit schools in the realm of higher education has become central to discussions about the state of for-profits (Jaschik 2011). Conceptualizing the for-profit institutional population as one single entity, however, disguises the large amount of diversity in the sector, and the differential success rates of type of for-profit schools. As large corporate provider chains have become part increasingly well known, they have often been used to represent the entirety of for-profit education, but this is empirically unsound (Kinser 2006).

During the last two decades, and especially following the FAFSA regulation changes, two well-defined trends can be seen in the for-profit institutional population. First, the number of four-year degree-granting institutions has continued to rise, as has the number of public shareholder corporate schools. This is the trend that has been prominent and much discussed in both research and the public discourse (for example, see Nocera 2011; Schatz 2012). At the same time, non-degree granting, primarily vocational for-profit schools have been experiencing a huge decline in numbers, despite recent statements of support for growth in post-secondary vocational education by both scholars and President Obama (Harvard Graduate School of Education 2011). As Figure 2.7 shows, between 1987 and 2010, the number of non-degree granting for-profits dropped from over 5,500 to about 1,500, while the number of 2-year and 4year degree granting for-profits grew. In other terms, in that period of years, degree-granting for-profit institutions increased their market share of for-profit education from less than 20 percent to almost 50 percent (see Figure 2.8).



Figure 2.7

Source: U.S. Department of Education, NCES, IPEDS; Author Calculations



Figure 2.8 Source: U.S. Department of Education, NCES, IPEDS; Author Calculations

As the two preceding figures make clear, degree-granting for-profit institutions, and schools that offer bachelor degrees (as potentially graduate degrees as well) in particular, are succeeding in the current climate while other types of for-profit schools closing at a relative rapid rate. Many of these for-profit degree-granting colleges and universities are owned by the shareholder corporations described above, and as Table 2.2 shows, the top eight companies enrolled over half of the students that attended for-profit schools in 2009. There is no question that these schools have become the model for for-profit education in the U.S.; in fact, they have even been offered up as a possible example to traditional colleges and universities that are struggling to respond to the changing financial environment (Ruch 2001; Sperling and Tucker 1997). Therefore, while it is critical to avoid generalizing institutional characteristics to

the entire for-profit population, it is also important to acknowledge some of the current trends in for-profit schooling. As many of these trends seem to be moving the postsecondary forprofit system toward resembling traditional colleges and universities at the same time that forprofit enrollment is growing, they are critical to understanding the current dialog surrounding for-profit schools. I describe a few of the most major transformations below.

| ution | Enrollment % Total Enro | For-Profit llment |
|------------------------------|----------------------------------|----------------------|
| o Group | 395,361 2 | 1.2 |
| ation Management Corporation | 104,547 5 | .6 |
| r Education Corporation | 97,645 5 | .3 |
| thian Colleges | 85,029 4 | |
| у | 78,544 4 | 2 |
| n Education | 67,897 3 | .7 |
| ducational Services | 60,890 3 | .3 |
| er Education | 45,491 2 | 2.4 |
| ate | 37,201 2 | 2.0 |
| | 972,605 52 | 2.3 |
| ate | 43,491 2 37,201 2 972,605 52 | 4 0 2.3 |

Table 2.2: Enrollment of Largest For-Profit Corporations, 2009

Source: Bennett, et.al. (2010)

Characteristics of Current For-Profit Education

For-profit institutions of higher education operated on the outside of the mainstream system for much of the twentieth century and into the modern era, in large part because they were often perceived as a very divergent form of postsecondary education. Recently, however, for-profits have been changing to resemble traditional colleges and universities on a number of fronts in an attempt to attract students who would otherwise have enrolled in conventional programs (Hyslop and Parsons 1995; Lee and Merisotis 1990). Historically, many proprietary schools focused almost exclusively on job training, while traditional schools included general education competencies in their curriculum. In the mid-1990s, however, Lee (1996) argued that mission convergence between community colleges and proprietary schools was occurring, and as four-year degree granting for-profits continued to emerge this pattern was extended to all of traditional higher education.

Along with a movement toward a more academic focus, a major recent development in for-profit higher education is the growing importance of the accreditation system due to financial aid eligibility requirements. According to Kinser (2006), for-profit institutions have faced discrimination in accreditation agencies that until recently focused on the nonprofit sectors. Accrediting agencies are voluntary membership organizations, and as such can restrict membership as long as they don't violate any federal laws (Kaplin and Lee 1995). Despite this independence, accreditation agencies are also the gatekeepers to financial aid, and have been pressured to base their acceptance policies on academic criteria only. In the last ten years or so some of these agencies have made this transition, and for-profit institutions are increasingly able to get accredited by at least some type of accreditation organization.

The American accreditation system is complex, but it can generally be understood as comprised of two types of agencies: 1) specialized accreditation that evaluates a type of educational program or school that specializes in that program, and 2) general accreditation that evaluates an entire institution. These agencies then operate in two different realms: regional and national. Until the 1970s, regional accreditation was closed off to for-profits (Kinser 2005), and regional accreditation agencies have been generally resistant to including for-profit schools in their membership. Some of the most powerful for-profit schools have been

able to achieve this more prized form of accreditation (Sperling 2000), but it is still limited to degree-granting for-profit institutions that have a more traditional format.

While numerous authors have noted the transformation in for-profit higher education toward a more traditional format, the effect of these changes on institutional survival and success is not clear. In this dissertation, I explore the ways that the entrance of four-year degree granting FPCUs has influenced the for-profit organizational environment, and the ways that for-profit schools are attempting to adapt to this change. In the next chapter I describe the data and methods that I use in this dissertation, then present three analyses that answer the research questions I proposed in chapter 1. In the first analysis, I ask how the introduction of four-year FPCUs affect the foundings of each type of for-profit institution. The second analysis looks at how environmental and organizational characteristics affect the likelihood of transformation by different types of for-profits, and finally, in my third analysis I examine how making a transformation affects the chance of survival for each type of for-profit institution. Through these three distinct but connected analyses of the foundings, transformations, and closures in the for-profit system over the last twenty-five years, I help to illuminate the true state of the current for-profit educational marketplace.

CHAPTER 3

DATA AND METHODS

In this dissertation, I propose three related research questions that examine the effects of the newly prevalent four-year degree granting for-profit form on the foundings, transformations, and closures of for-profit institutions. The data that I use in this analysis is well suited to answer these questions for a number of reasons, including its longitudinal structure and the fact that it is a census dataset that includes information from all institutions of higher education that intend to participate in any federal aid programs. The main dataset that I use (IPEDS) is uniquely suited to this research project for a number of reasons, empirically and theoretically. Primarily, it is the only comprehensive dataset available that provides information on the institutional characteristics of all colleges, universities, and technical and vocational institutions over time. More theoretically, it is designed in a way that is beneficial for conducting research on the effects of large organizational transformations, unique for the study of organizational populations. In this dataset, each school is provided with an identification number that is consistent, regardless of any status change on any variable, so each school is clearly tracked over time. For this reason, this data is particularly appropriate for an examination the ways that the introduction of a new type of organization can create change in an existing population. In addition, I engaged in some independent data collection to supplement this dataset where necessary. All of the data used in this project is described in detail below.

Integrated Postsecondary Education Data System (IPEDS)

The Integrated Postsecondary Education Data System (IPEDS) provides most of the data used in this project. The IPEDS dataset is a yearly survey of the population of institutions of higher education in the United States. IPEDS is compiled and distributed by the National Center for Educational Statistics, a part of the U.S. Department of Education. According to the National Center for Educational Statistics (NCES):

The completion of all IPEDS surveys is mandatory for institutions that participate in or are applicants for participation in any federal student financial aid program (such as Pell grants and federal student loans) authorized by Title IV of the Higher Education Act of 1965, as amended (20 USC 1094, Section 487(a)(17) and 34 CFR 668.14(b)(19)). More than 6,700 institutions complete IPEDS surveys each year. These include research universities, state colleges and universities, private religious and liberal arts colleges, for-profit institutions, community and technical colleges, non-degree-granting institutions such as beauty colleges, and others (IES 2010).

The IPEDS dataset includes an initial survey of schools completed in 1980, and yearly surveys since 1984; however, in line with a number of other large-scale research projects that utilize IPEDS the first survey year I include in my dataset is 1987 (The Delta Cost Project 2012). This is done because prior to 1987, the IPEDS survey was not conducted in every year, and the questions in the surveys that were distributed were much less comprehensive and are difficult to compare with the 1987-present surveys. I include data from each survey year through 2010, the most recent complete year of IPEDS data available. In each of these years, surveys include information on finance, instructional staff and salaries, completions (by degree conferred, detailed program, and gender), enrollments (by race, gender, attendance status, level of student, and major), and institutional characteristics. Using a variable provided by IPEDS that

assigns a unique institutional identification number to each school, I merged the surveys within each year and across all years to create one longitudinal dataset.

I limited my dataset to for-profit institutions of higher education as identified through IPEDS survey measures of school type because my research questions are focused only on the for-profit educational environment. Any institutions that did not operate under a for-profit structure or did not offer at least one postsecondary program was dropped from the dataset. Additionally, I did not include schools that were located outside of the fifty states, such as schools located in U.S. territories like Puerto Rico.

Data Collection

In addition to the IPEDS dataset, I engaged in independent data collection in order to gather data that was not collected through the IPEDS survey, or was incomplete for for-profit schools. First, I categorized each school in the dataset as either a corporate shareholder forprofit school or not using the definition provided in Chapter 1. In order to collect this data, I first turned to listings of the major corporate chains as identified by Ruch (2001) and Kinser (2006), and coded all schools owned by those corporations accordingly. I then researched each remaining uncoded school in the dataset using a similar methodology to the one described by Kinser (2006). This involved collecting stock reports and SEC filings, and cross-referencing them with school websites when available to identify the ownership of each school.

Along with ownership, I also collected data on accreditation status and type. Accreditation in particular has become increasingly important to the for-profit sector, as the accreditation system is designed to provide validation of an institution through an external

body with (supposedly) unbiased standards (Kinser 2006). The IPEDS dataset does include a variable identifying the school's accreditation in the years 1987-2004, but in these survey years the data is incomplete for for-profit schools on this variable. In order to supplement this missing data, I first used the Council for Higher Education Accreditation's Directory of CHEA-Recognized Organizations (2011) to identify the thirty national and regional agencies that accredit for-profit institutions of higher education. Between the IPEDS data and this step, I was able to identify the accreditation agencies that certified most of the schools in my dataset (91% complete). For the remaining institutions, I then accessed the data available through the Database of Accredited Postsecondary Institutions and Programs provided by the U.S. Department of Education that identifies the status and accrediting agency of all schools that are accredited in a year (Office of Postsecondary Education in the U.S. Department of Education 2011). This data was available for years 2007-2010. Finally, for schools that still had missing data and for the years that were not covered by either IPEDS or Database of Accredited Postsecondary Institutions and Programs, I used either information available on the websites of these accreditation organizations or contacted them directly to collect data on which schools they either have accredited or currently do accredit, and the year(s) in which they certified the school.

Measures

Dependent Variables

<u>Foundings</u>: The unique identifier that IPEDS applies to every school in the dataset allows for the tracking of each institution over time regardless of any changes on any other variable, and identifies when a school enters the IPEDS universe. This variable represents the foundings of

the population of viable for-profit postsecondary institutions. The variable is coded 1 if a school enters the dataset in a given year, 0 else.

Degree Transition Up: The proportion of either two-year or four-year degree granting for-profit institutions that are opening is outpacing the number of new non-degree granting schools. At the same time, some institutions are transitioning "up" to offer a more advanced degree. This variable is coded 1 if the school transitions from non-degree granting to having at least one associates degree program or if the school transitions from the highest degree offered being an associate's degree to having at least one bachelors degree or higher program, 0 else. It is potentially possible for an institution to experience a "double transformation" within the study window in which a for-profit school that offers four-year degrees would first offer only twoyear degrees and then transform again to only offer certificate programs, or vice versa. This type of double transformation was rare in my data, and represented less than two percent of cases. Therefore I opted to drop these cases from the dataset.

<u>Degree Transition Down</u>: A for-profit institution can also transition "down" by discontinuing their two-year or four-year degree program(s). Therefore, I also include a variable that identifies if the school transitions from the highest degree offered being a bachelors degree or higher to having only associates degree program(s) or if the school transitions from having at least one associates degree program to offering no degrees (coded 1, 0 else).

<u>Closures:</u> Using the unique institutional ID described above, this variable identifies whether or not an institution that was active in the IPEDS survey in the previous year is no longer active in a given year. It is possible that an institution might continue to educate students and no longer participate in IPEDS, but as explained above, this would render them ineligible for federal

financial aid programs. Thus, it is highly likely that any school that participates in the IPEDS survey and then does not is basically defunct. To make sure that this measure of closure is valid, however, I also substituted a more conservative measure of closures in my models. Using a variable provided by IPEDS that identifies schools that reported closing in their survey response, I reran the models reported below, which resulted in findings that were substantively similar. As a result I use the "inactive" measure that allows me to keep more of the data in my closures analysis.

Independent Variables

Institutional Type: This variable defines which level of degree an institution offers in a given year, coded 1 if the highest degree offered is at the Bachelor's level or higher, 2 if the highest degree offered is at the Associate's level and 3 if the school does not offer degrees. <u>National Density of Four-Year Degree Granting For-Profits:</u> As described above, density is often used as both a proxy for legitimacy and to measure competition. In order to answer my research questions which focus on the introduction of this population, I examine the density of four-year degree granting for-profits. This measure is defined as the number of four-year degree granting for-profit colleges or universities that are active nationally in a given year. <u>State Level Density of Four-Year Degree Granting For-Profits:</u> This measure is defined as the number of four-year degree granting for-profit colleges or universities that are active nationally in a state in a given year.

<u>Apollo Stock Value/DeVry Stock Value</u>: Unlike traditional colleges and universities, for-profit schools have thus far not been subject to systematic rankings such as those done by U.S. News and World Report (although that is expected to change this year (Morse and Flanigan 2011)).

Also unlike traditional schools, however, a measure of success for some for-profits is accessible on a daily basis in the form of stock prices. While stock prices are not direct indicators of the quality of degrees being offered by for-profit schools, they do indicate investor perceptions of the institution. Therefore, I created measures of the average yearly stock returns for two of the largest and most well known postsecondary for-profit educational corporations: the Apollo Group and DeVry. This data was gathered using the Yearly Stock Returns Index (YSRI), which provides the yearly performance of each public stock, adjusted for any splits (Yearly Stock Returns Index 2012).

<u>Corporate Status</u>: One of the most commented upon changes in the for-profit population is the growing trend of for-profits owned by publically held educational management corporations. Using the data collection method described above, I coded each school as either owned by a corporate provider or not. The variable is coded 1 if the school is corporate, 0 else. <u>Accreditation Status</u>: Using the data collected on accreditation (described above), I created a variable that identified whether or not an institution was accredited by any accrediting agency that is recognized by the U.S. Department of Education. Coded 1 if accredited in a given year, 0 else.

<u>National Accreditation Status</u>: Again using the data collected on accreditation, I coded the type of accreditation that had been awarded to each school. This variable is coded 1 if the school is accredited by a national accrediting agency, 0 else.

<u>Regional Accreditation Status</u>: This variable is coded 1 if the school is accredited by a regional accrediting agency, 0 else.

<u>Academic Program</u>: One of the patterns that is often discussed in relation to for-profit higher education is the growing inclusion of academic programs in the curriculum. I therefore include a measure provided by IPEDS that identifies whether or not a for-profit institution offers at least one academic program in a given year. The variable is coded 1 if the school self-identifies as offering at least one academic program, 0 else.

<u>Occupational Program</u>: Similar to the academic program measure, the IPEDS survey also asks institutions to self-identify whether or not they offer an occupational program that trains students in the skills required to perform a specific occupation. The variable is coded 1 if the school self-identifies as offering at least one occupational program, 0 else.

<u>Institution has a Physical Library Facility</u>: New FAFSA regulations require institutions of higher education to have a physical (bricks and mortar) library facility be made available to students. Some for-profits meet this requirement by sharing a library between campuses, but means that students would have to travel to use these resources. In addition, this requirement means that even if a school was to offer only online courses, they would still have to have a non-virtual library in some location. I include a measure of whether or not a for-profit school has a library on-site for student use as one proxy of the school's commitment to a traditional university structure. The variable is coded 1 if the school has a physical library on site, 0 else. <u>Age:</u> In the closure analysis only, I include a measure of the age of the institution in each year. Research in the ecology of organizations has addressed the question of the ways that age influences rates of organizational failure, terming this the liability of newness. As my data is censored at year 1987 I do not have data on any institutions that were open prior to this year, and it is not possible to gather accurate age data on all institutions in the dataset, especially

those that closed in the early years of the study window. Therefore, I analyze the effects of age in a separate model that includes only schools that opened after year 1, as indicated below.

Control Variables

<u>1992 FAFSA Regulations in Place</u>: As described in Chapter 2, new regulations were instituted in 1992 under the reauthorization of the Higher Education Act. The rules that were added to the Act were directed primarily at ending specific abuses of federal financial aid programs by the for-profit sector (Kinser 2006), and thus I control for the presence of these regulations in my longitudinal models. This variable is coded 1 if the 1992 regulations are in place (beginning in 1993), 0 else.

<u>Community Colleges Per State Population</u>: While most previous research has suggested that for-profit institutions are not competing for students or resources with community colleges, this may be changing. In addition, if there are few community college options in a state, or they are overcrowded, students may be more likely to consider a for-profit education. Therefore, I include a measure of the number of community colleges per state population.

<u>Average In-State Community College Tuition and Fees Cost:</u> I also suggest that if a community college education is more expensive in a given state, that state's residents may be more likely to consider for-profit education as an alternative. This variable measures the average in-state cost of tuition and fees for all community colleges in the state in a given year.

<u>Traditional Schools Per State Population</u>: I expect that for-profit schools would be even less likely to compete with traditional schools, but include a measure of the number of traditional schools per state population as well in order to examine the effect of the density of this type of school on for-profit institutions. <u>Percent of State Population that Lives in an Urban Setting</u>: For-profit institutions of higher education are more likely to be founded in areas of high population density as close proximity may assist in the recruitment of non-traditional and working students. Therefore, I control for the percent of state residents that live in an urban setting.

Percent of High School Graduates that are Black in a State: As discussed in the previous chapter,

for-profit schools often recruit minority students. Therefore, these institutions may be more

likely to be founded in states with a higher percentage of high school graduates that are black.

The measure improves upon a simple measure of the racial composition of the state because it

also accounts for whether or not the persons in question are (at least on this factor) eligible for

enrollment.

<u>Percent of State Residents that Have a High School Diploma/GED</u>: Most for-profit institutions require a high school diploma or the equivalency to be eligible for enrollment. This variable controls for the percent of state residents that meet that criteria.

| Variable | Description and Coding | Mean | SD | |
|---------------------------|---|------|------|------|
| Dependent Variables | | | | |
| Founding | Dummy: Coded 1 if the school enters the organizational population in X year, 0 else (IPEDS, institutional characteristics survey) | | 0.25 | 0.43 |
| Degree Transition Up | Dummy: Coded 1 if the school transitions from non-degree granting to having at least one AA program or if the school transitions from the highest degree offered being an AA to having at least one BA or higher program, 0 else (IPEDS, institutional characteristics survey) | | 0.17 | ,37 |
| Degree Transition Down | Dummy: Coded 1 if the school transitions from the highest degree offered being a BA or higher to having only AA program(s) or if the school transitions from having at least one AA program to offering no degrees (IPEDS, institutional characteristics survey) | | 0.02 | 0.12 |

| Table 3.1: Variables of Interest: Definitions | , Sources, | and Descriptives |
|---|------------|------------------|
|---|------------|------------------|

| Closure | Dummy: Coded 1 if the school exits the organizational population in X year, 0 else (IPEDS, institutional characteristics survey) | 0.46 | 0.49 |
|--|---|--------|--------|
| Independent Variables | | | |
| National Density of Four-Year Degree Granting For-Profit Schools | Interval-Ratio: Number of four-year degree granting for-profit schools currently operational in the nation (IPEDS) | 283.37 | 150.31 |
| State-level Density of Four-Year Degree Granting For-Profit Schools | Interval-Ratio: Number of four-year degree granting for-profit schools currently operational by state (IPEDS) | 15.21 | 20.09 |
| Age | Interval-Ratio: The age of an institution in a given year- includes only schools that opened after year 1 (IPEDS) | 7.82 | 6.02 |
| Apollo Stock | Continuous: Average yearly price of Apollo (APOL) Stock in dollars, Adjusted to 2010 dollar valuation, 1 year lag (independent collection) | 32.61 | 25.89 |
| DeVry Stock | Continuous: Average yearly price of DeVry (DV) Stock in dollars, Adjusted to 2010 dollar valuation, 1 year lag (independent collection) | 17.32 | 14.21 |
| Corporate Status | Dummy: Coded 1 if the school is defined as corporate, 0 else (independent collection) | 0.14 | 0.34 |
| Accreditation Status | Dummy: Coded 1 if the school is accredited, 0 else (independent collection) | 0.52 | 0.5 |
| National Accreditation | Dummy: Coded 1 if the institution has accreditation at the national level 0 else | 0.51 | 0.39 |
| Regional | Dummy: Coded 1 if the institution has accreditation at the regional level 0 else | 0.06 | 0.25 |
| Institutional Type | Categorical: 1 if the highest degree offered is at the Bachelor's level or higher, 2 if the highest degree offered is at the Associate's level and 3 if the school does not offer degrees (IPEDS, institutional characteristics survey) | 2.11 | 0.31 |
| Title 4 Eligibility | Dummy: Coded 1 if the school is eligible for Title 4 aid programs, 0 else (IPEDS, institutional characteristics survey) | 0.55 | 0.8 |
| Academic Program | Dummy: Coded 1 if the school offers an academic program, 0 else (IPEDS, institutional characteristics survey) | 0.26 | 0.44 |
| Occupational Program | Dummy: Coded 1 if the school offers an occupational program, 0 else (IPEDS, institutional characteristics survey) | 0.55 | 0.5 |
| Urban Location | Dummy: Coded 1 if the school is located in an urban setting, 0 else (IPEDS; institutional characteristics survey) | 35.13 | 31.45 |
| Geographic Region | Categorical: Coded 1 if the school is located in the Northeast, 2 if the school is located in the Southeast, 3 if the school is located in the Southwest, 4 if the school is located in the Midwest, and 5 if the school is located in the West/Pacific (IPEDS, institutional characteristics survey) | 0.14 | 0.35 |

| Community Colleges Per State Population | Continuous: The number of community colleges in the state in a given year divided by the state population in the same year, multiplied by 1M (IPEDS, Census Data) | 4.26 | 2.54 |
|---|---|-------|------|
| Traditional Schools Per State Population | Continuous: The number of traditional colleges and universities in the state in a given year divided by the state population in the same year, multiplied by 1M (IPEDS, Census Data) | 15.53 | 5.32 |
| Average In-State Community College Tuition and Fee Cost | Continuous: The average cost of in-state tuition and fees for a year of community college courses, in a given year (NCES) | 15.53 | 5.32 |
| Percent of State Population that lives in an Urban Setting | Continuous: The percent of a state's population that lives in an urban setting in a given year (Census Date) | 0.76 | 0.13 |
| Percent of High School Graduates that are Black | Continuous: The percent of a state's resident high school graduates that are Black, measured in a given year (Census Date) | 0.11 | 0.09 |
| Percent of State Residents that Have a High School Diploma | Continuous: The percent of a state's residents that have a high school diploma in a given year (Census Date) | 0.37 | 0.12 |
| School Has a Physical Library Facility | Dummy: Coded 1 if the school has a physical library facility on campus, 0 else (IPEDS) | 0.23 | 0.42 |
| | | | |

Analytic Strategy

As discussed above, I proceed with this dissertation in three related analyses. The first examines the ways that the introduction of four-year FPCUs affect the foundings of each type of for-profit institution (Chapter 4). The second analyzes how organizational and environmental characteristics affect the likelihood of a transformation by the different types of for-profits (Chapter 5). Finally, the third examines how making a transformation affects the survival chances of each type of for-profit institution (Chapter 6). The specific variables that are used in each portion of this project to answer each specific research question are described in detail within each chapter, but I use a consistent methodology to conduct statistical analyses of my data, discussed below.

To understand how organizational and environmental characteristics affect the hazard rate of either the founding, transformation, or closure of an FPCU, I use discrete-time event history models with dichotomous dependent variables (Allison 1984). This type of model is ideal for this analysis because it allows me to examine the amount of time that passes before an event of interest, and variables that influence the hazard rate of the event occurring. In addition, event history analyses allow for time-varying explanatory variables in the model, which lets me examine the effects of changes in my explanatory variables on each dependent variable.

The unit of analysis for this research is the institution-year; thus each institution is observed in each year between 1987 and 2010. The timing of the dependent variable is based on the year the school opened. Most institutions opened prior to 1987 and thus enter the dataset at the time of first observation. Duration is measured from the time that each institution is a risk of experiencing the event in question, which in these analyses is generally from the time that they open.

Censoring can be a problem in event history analysis, and this dataset is both right and left censored. Right censoring occurs if the school has not experienced the event by 2010, the last year of available data. For these analyses, I assume that right censored observations are independent of event times, meaning that this will not bias my results. Left censoring is of greater concern, as a majority of for-profit institutions of higher education existed prior to

1987. I contend, however, that for this research project this does not unduly bias my analyses because of the timing of the modern for-profit movement. Most scholars who have studied FPCUs place the initiation of the modern corporate for-profit model sometime in the early 1990s, with the majority of rapid growth occurring during this time period (Floyd 2005; Morey 2004; Ruch 2001). Therefore, these analyses include data prior to the emergence of modern FPCUs as a significant portion of the higher educational market, greatly diminishing the potential effects of left censoring on my variables of interest.

In order to conduct each event history analysis, I first model the distribution of the timing of the event in question using the hazard and survivor functions. The hazard function can be estimated as:

$$\lambda(t)dt = \lim_{dt \to 0} \frac{\Pr(t \le T < t + dt \mid T > t)}{dt}$$
(1.1)

where λ equals the hazard of closure, PR equals the probability, *t* represents time with *dt* equating to the change in *t*, and *T* represents the time of the event in question.

The survivor function is estimated as (variables are defined in the same way as equation 1.1):

S(t) = Pr(T > t) (1.2)

Once I have calculated the hazard and survival rates I specify how they depend upon the explanatory variables using a logit regression model, estimated as:

$$Log(P(t)/(1-P(t)) = a + b_1 x_1 + b_2 x_2(t)$$
(1.3)

where P(t) is the probability that an institution has an event at time t if the institution is still at risk, x_1 represents a variable that is constant over time, $x_2(t)$ represents a variable that is time-

varying, and the coefficients b_1 and b_2 give the change in log-odds for a one-unit increase in each x value. In the following chapters I present and discuss my findings.

CHAPTER 4

The New Market: An Analysis of the Foundings of New For-Profit Institutions of Higher Education

"But what of the for-profit colleges that seem to be springing up everywhere?" (Osgood 2012)

A great deal of the criticism leveled at the for-profit sector in the current era has been predicated upon the idea that for-profit institutions of higher education are multiplying at an alarming rate (Lewin 2011; Marklein 2011). As the above quote indicates, there is a (potentially unfounded) public perception that for-profits can be found on 'every corner,' and advertisements for these schools are prominent on television as well as the internet (The Office of the Minnesota Attorney General 2012). As I discussed in the introduction, there may be real and pressing issues with the rapid expansion of for-profit education, but I maintain that a more nuanced understanding of what is occurring in the for-profit population is necessary but missing piece of this discussion. As I will elaborate upon below, not all types of for-profit institutions of higher education are experiencing overall gains in number or enrollment, and most public concern centers on the large corporate chains of for-profits, not small career- and certificate-focused schools. Therefore, it is important to explore the actual patterns of new foundings of for-profit schools in the modern era.

As Tierney and Hentschke (2007) point out in their book *New Players, Different Game*, for-profit institutions do not add campuses or programs as an end in and of itself; instead,

growth is a means of achieving profitability. The processes of opening of a new school or addition of new programs/classes, however, are costly in terms of capital resources and if this type of growth does not quickly increase enrollments it will result in a net loss and probably a quick closure. It is also important to note that for the large chains of corporate for-profits, the failure to achieve profitability goals at one campus can have consequences for the rest of the institutions that it controls through falling stock prices and a loss in consumer confidence.

It follows, therefore, that new for-profits should be founded under certain conditions, or environmental factors, that increase the likelihood of success. There is some evidence that suggests that this is the case; for example, multiple scholars have commented upon the fact that for-profit institutions open in locations that are in close proximity to the student populations they target (Bailey, Badway, and Gumport 2001; Institute for Higher Education Policy 2012). To date, however, there has not been a comprehensive study of the environmental factors that have the potential to influence the foundings of new for-profit institutions of higher education. In this chapter of the dissertation, I help to fill this hole in the literature through an examination the effects of a number of external factors on the foundings of each of the three different types of for-profits (four-year degree-granting institutions, twoyear degree-granting institutions, and non-degree granting institutions). Clarifying the founding patterns of these schools and the factors that influence them is especially important in light of the disjuncture between the perception of growth dominated by chains of schools such as the University of Phoenix (Cronin and Bachorz 2006) and the actual for-profit market share held by these schools (recall Figure 2.8).

While it is important to study for-profit institutions of higher education in particular, this analysis also has the potential to add to the body of organizational literature that examines the entry of new forms into an established organizational environment. The still-expanding population of four-year degree granting for-profit colleges entered an educational marketplace that included two previously established populations: traditional colleges/universities and less than four-year (predominantly non-degree granting) for-profit postsecondary schools. The influence of this environment on four-year degree for-profits is especially interesting as these institutions face the dual pressures of being profit driven corporations and needing to conform to many of the same requirements as traditional schools (Bailey, Badway, and Gumport 2001).

I expect that for-profit foundings will be influenced by many of the same factors that other scholars have found to affect organizational foundings (Hannan and Freeman 1989; Messallam 1998). At the same time, I also suggest that these founding patterns will be shaped by the presence of competition from traditional schools that have long been the standard of postsecondary education. Therefore, I ask the following empirical research questions: (1) How does the introduction of four-year FPCUs affect the foundings of each type of for-profit institution? and (2) How does the presence of traditional higher education options affect the foundings of each type of for-profit institution?

Research on organizational foundings has demonstrated that population dynamics and the effects of density along with other environmental factors influence the emergence of new organizational populations and the opening of new organizations within the population. I use these explanations to examine the emergence of four-year degree granting FPCUs. Additionally, I analyze the ways that the introduction and rapid growth of this type of

institution has influenced in turn the founding rates of the more established populations of non-degree granting and two-year degree granting FPCUs. Below, I discuss two theoretical models of organizations, population ecology and neo-institutional theory, and use them to guide hypotheses about the patterns of foundings of each type of postsecondary for-profit institution.

Population Ecology

The population ecology theory of organizations models itself upon the central concepts of ecology, including variation, selection, retention, and competition (Aldrich 1979; Galunic and Weeks 2002). According to this theory, the environment outside of the organization is so uncertain and ambiguous that people are quite limited in their ability to adapt quickly enough to address environmental forces and transformations (Hannan and Freeman 1977b). As a result, variations introduced by people within organizations can be equated to the random genetic mutations of Darwinian theories of evolution: sometimes the variations improve survival chances and sometimes they harm them, but the outcomes are random and unpredictable.

One of these environmental influences that I would argue is particularly important in the case of for-profit higher education institutions is density, especially in relation to its effects on cognitive legitimacy and competition. In population ecology theory, an organization is considered legitimate if the assumption exists that the organization has a suitable and successful form (Suchman 1995). According to Hannan and Freeman (1977a), legitimacy increases as the density of an organization type grows because that form is increasingly accepted and supported in the environment. At the same time, if the density of the

organizations increases to a point higher than the organizational environment can support, this will lead to competition and organizations should then be less likely to enter this environment.

Based upon the ideas of legitimacy and competition, I expect changes in the density of the population that if graphed would resemble an inverted U-shaped curve (Hannan and Carroll 1992; Hannan and Freeman 1989). The left side of the U represents the early stages of a population, in which competition is low but legitimacy is growing as increasing numbers of organizations enter the environment, and this increase in legitimacy in turn encourages continuing increases in the rate of foundings. At the same time, organizational scholars have suggested that population density is also connected to competition within the environment (Aldrich and Reuf 2006; Hannan and Freeman 1977a); therefore, I also expect that competition will play a role in the population dynamics of four-year degree granting FPCUs. As this type of FPCU enters the market, they will begin to compete for resources such as students and investment capital. At some point, the density of the organizational form will increase to the point that competition becomes an overwhelming force (also known as the point when the population reaches the carrying capacity), and foundings drop off, creating the other side of the inverted U.

In this work I am interested in the ways that institutional and environmental characteristics affect the foundings of four-year, two-year, and non-degree granting FPCUs. For the first part of this analysis, however, I look specifically at four-year degree granting FPCUs, as they comprise the new organizational type that is entering the established community of for-profit colleges and universities. Based upon the density dependent argument outlined above, I

expect that as the number of four-year degree granting FPCUs in the population grows they will increase in legitimacy and thus the founding rate will also increase:

H4.1: As the legitimacy of four-year degree granting for-profits increases (measured through density), the founding rates of four-year degree granting for-profits will increase

As the population reaches the carrying capacity, however, competition should in turn lead to a decrease in foundings. Overall, this should create a relationship between density and foundings that is nonmonotonic, resulting in an inverted-U shaped pattern of foundings as described above. I hypothesize:

H4.2: As competition increases (measured through density), the founding rate of fouryear degree granting for-profits will decrease

The proceeding hypotheses assume that legitimacy and competition, as measured by density, operate at the national level for four-year degree granting FPCUs. There is reason to believe that this may be the case; for example, four-year degree granting FPCUs are quite likely to offer online learning opportunities, which allows students to gain degrees from schools that are not geographically accessible. In a recent study, over two-thirds of this type of school cited online education as a key focus in their long-term strategy (Allen and Seaman 2010). In addition, some of the large chains of FPCUs likely have national name recognition, such as the University of Phoenix schools which currently claim over 200 campuses in the U.S. (University of Phoenix 2012). At the same time, it may also be the case that for four-year degree granting FPCUs, the effects of legitimacy and competition may matter more in smaller, geographically delineated areas. Many four-year degree granting for-profits offer a curriculum that is streamlined with flexible class times to fit the needs of working adult students (Bailey, Badway, and Gumport 2001; Jacobs 2010), and employed adult students are not likely to move to attend

an institution of higher education. Additionally, while large chains such as the University of Phoenix have campuses throughout the nation, there are also a large number of single-campus FPCUs that offer four-year degrees and attract a mostly regional population. For example, Bauder College in the heart of Atlanta offers Bachelor degrees, but is likely not a nationally recognizable school and its current enrollment is almost entirely in-state students (Campus Discovery 2012).

Research into the effects of geographical space on organizations suggests that location is important to founding rates (Hannan, Carroll, Dundon, and Torres 1995) and organizational life chances (Greve 2002). Like the process of legitimation and competition described above, early entrants of an organizational form in a localized area may at first encourage more entrants by legitimating the organizational type *in that area* (Greve 2002). At some point, however, competition in the local environment will increase to the point that foundings slow down (Lomi 1995), resulting in local density dependence. I expect, therefore, that the processes of legitimacy and competition may also be operating to create an inverted-U shaped pattern of foundings at the state level, an assumption that I explore in separate models in the analyses below.

The expected effect of the growing population of four-year degree granting for-profits on the founding rates of more established populations of two-year degree granting and nondegree granting FPCUs is less clear. On the one hand, the growing population of four-year degree granting for-profits may offer increased legitimacy to other FPCUs as well. This type of "legitimacy transfer" has been demonstrated in other research on related organizational populations (Jonsson, Greve, and Fujiwara-Greve 2009; Kuilman and Li 2009), and theories of

community ecology which examine the interdependence of organizations with different forms predict that legitimacy can be transferred between these forms if they are clearly cognitively related (Dobrev, Ozdemir, and Teo 2006).

I would expect this process of legitimacy transfer to be especially strong in the case of two-year degree granting for-profit colleges. As discussed above, the vocational non-degree granting for-profit school was by far the most common type of for-profit higher education until the recent surge in four-year degree granting schools. The general conception of a for-profit institution of higher education as vocational and non-degree granting has changed, however, with the growth of schools offering bachelor and post-graduate degrees (Tierney and Hentschke 2007). As two-year degree granting schools also necessarily have academic programs, they may benefit from the increasing legitimacy of the four-year degree granting schools. In essence, I expect that as the density and thus legitimacy of four-year degree granting FPCUs grows, this will in turn increase the legitimacy and therefore foundings of forprofit colleges offering two-year degrees. I also expect to see this legitimacy transfer operating at both the national and state levels. I hypothesize:

H4.3: As the national and state-level density of four-year for-profit colleges and universities increases, foundings of two-year for-profit colleges will increase

In the case of non-degree granting for-profit colleges, however, I do not expect the growth of four-year degree granting for-profits to result in increased legitimacy and foundings. I suggest that the increased legitimacy of degree-granting FPCUs does not transfer to for-profits that do not offer any degree programs because this type of school is not cognitively related in the way that two- and four-year degree granting FPCUs may be. In other words, it is not the for-profit classification alone that is cognitively connected, but also the offering of an academic

program and degrees that were previously considered the purview of traditional colleges and universities. As a result, non-degree granting for-profit schools may actually suffer a loss in legitimacy if this organizational form is no longer considered the standard of for-profit education (Galaskiewicz 1985; Meyer and Scott 1983; Meyer and Rowan 1977). Therefore, if non-degree granting for-profit schools are no longer isomorphic with the accepted organizational form, institutional theory would suggest a loss of legitimacy for this type of organization (Deephouse 1996; DiMaggio and Powell 1983), and thus a decrease in foundings.

Additionally, there is reason to believe that even if the non-degree granting for-profit school is not cognitively grouped with four-year degree granting for-profits, these organizations are still in competition for one critical resource: students. According to Kinser (2006), even as the academic focus and number of degrees offered increases across four-year degree granting FPCUs, vocational training remains a significant function and even new four-year degree granting schools offer a large number of non-degree certificates as well. As a result, I expect competition to be increasing for non-degree granting for-profits, which would also result in a decreased rate of foundings. Similar to the hypotheses above, I expect the loss of legitimacy and increase in competition from density growth of four-year degree granting FPCUs to operate at both the national and state levels, and thus I hypothesize:

H4.4: As the national and state-level density of four-year for-profit colleges and universities increases, foundings of non-degree granting for-profit schools will decrease

Neo-Institutional Theory

As discussed in the introduction, I contend that using multiple theories can improve our understanding of all of the organizational processes I examine in this dissertation. Therefore, I

also intend to use neo-institutional theory to provide a greater depth to my conception of legitimacy in for-profit institutions. In this section, I focus on two of the main premises of neoinstitutional theory. The first is that special attention should be given to the way in which organizational actions are legitimated (Aldrich and Ruef 2006), and the second is that examining organizational density as the only measure of legitimacy is undersocialized (Singh and Lumsden 1990).

In the neo-institutional framework, special emphasis is given to "the value-laden character of institutions and the way in which organizational actions are legitimated when cloaked in an institutionally acceptable rhetoric" (Aldrich and Ruef 2006: 39). In other words, work using this theory is especially interested in the ways that organizations garner legitimacy through the adoption of institutionalized rules that are widely accepted as the "correct" way of doing things within a certain type of organization. The reason for this focus on institutionalized environments that span multiple organizations stems from the main question underlying this theory, which is "why are organizations the same?" or, why do we see wide-ranging isomorphic trends within organizational environments? The basis for these questions comes in part from the image of the "iron cage" first conceptualized by Weber, who attested that the spread of bureaucracy was inevitable in modern society, where an efficient and expedient process within all capitalist organizations has been considered critical to the capitalist market (Weber 1968). While it is generally accepted that Weber's predictions of an expanding bureaucracy were accurate, more recent work has questioned his assumption that these governance structures are actually the most efficient (DiMaggio and Powell 1983; Meyer and Rowan 1977). According to Meyer and Rowan (1977), for example, institutionalized rules function as myths, which are

then incorporated into organizations in order to gain legitimacy and thus improve survival chances. Further, DiMaggio and Powell (1983) identify a number of other reasons that organizations move toward sameness, including goal ambiguity, uncertainty, and professionalization.

One of the main sources of institutional structures is assumed to be supraorganizational groups, which include governments and regulatory agencies (Dobbin, Edelman, Meyer, and Swidler 1988; Renzulli 2005). A number of research projects have found that the endorsement of regulatory agencies does boost sociopolitical legitimacy; for instance, work on unions has demonstrated that a key event in their quest for legitimation was the passage of the Wagner Act by Congress (Aldrich and Fiol 1994). In another example, Renzulli (2005) found that states with "stronger" (or less restrictive) charter school laws were more likely to have higher numbers of applications for charter school foundings. This is in line with neo-institutional theory, which would suggest that strong charter school laws are a signal of the state's endorsement of charter schools as politically legitimate.

One body of law enacted during the study window that can be expected to affect postsecondary for-profits is the FAFSA regulations of 1992. As explained in Chapter 2, the new rules that schools had to follow if they wanted to qualify for FAFSA federal student aid funds were much stricter and instituted new guidelines on aspects such as minimum program lengths and admission requirements. In general, these laws were designed to keep student aid flowing toward institutions that functioned along traditional, or accepted, models. For example, one stipulation included in the law was that to qualify for the aid funds a school must offer 50 percent or more of their courses in traditional classrooms, not online (Littlefield 2012). As a

result, if a for-profit school was structured to qualify for FAFSA funds after these new laws, neoinstitutional theory would suggest that they would be rewarded by greater socio-political legitimacy (as well as access to funding). While offering degree (as opposed to certificate) programs was not a stated requirement for access to these funds, offering associate's and bachelor's degrees does tend to indicate that a school follows a more traditional model, and thus these schools could be expected to be more likely to meet the requirements for FAFSA funding. Therefore, I hypothesize:

- H4.5: After 1992 (the year of major FAFSA federal aid reforms), the founding rates of FPCUs offering two- and four-year degree programs will increase
- H4.6: After 1992 (the year of major FAFSA federal aid reforms), the founding rates of for-profit institutions that do not offer degree programs will decrease

In addition to these hypotheses regarding the effects of regulation on founding rates, I also explore the assertion of some neo-institutional theorists that exclusive emphasis on one type of legitimacy disguises the multidimensional nature of the concept and it would be beneficial to measure other aspects of legitimation (Baum and Powell 1995). As Baum and Powell point out, there is no direct evidence of the relationship between legitimacy and population dynamics, as is taken for granted in population ecology theory. They contend therefore that our understanding of legitimacy has the potential to be improved with the inclusion of more concrete measures of this concept, even at the expense of some generality (Baum and Powell 1995; Singh 1993). I therefore offer an alternative measure of legitimacy that may be influencing the foundings of for-profit institutions of higher education: the stock prices of two well known national for-profit chains, the University of Phoenix schools and DeVry University schools. While the stock prices of publically traded for-profit corporations are not regulatory in the same sense as laws and policies, I argue that they still indicate the level of socio-political legitimacy that these organizations have achieved. Unlike traditional colleges and universities, for-profit schools have thus far not been subject to systematic rankings such as those done by U.S. News and World Report (although that is expected to change this year (Morse and Flanigan 2011)). Also unlike traditional schools, however, a measure of success for some for-profits is accessible on a daily basis in the form of stock prices. While stock prices are not direct indicators of the quality of degrees being offered by for-profit schools, they do indicate investor perceptions of the health of the school. Investors are important to publically held educational management corporations because they provide the financial backing for the continued operation and growth of the institutions that are held by the company. Therefore, neoinstitutional theory would suggest that administrators and other decision-makers within these for-profits are likely to attempt to open and/or transform the schools as/toward the model that they consider most likely to increase investor confidence and market standing.

The majority of for-profit institutions do not offer stock as an investment option, but the corporate chains that do are often taken as representative of the for-profit population (Kinser 2006), especially four-year degree granting schools. Therefore, I suggest that the health of the stock offered by the most prominent of these corporate chains (such as the University of Phoenix and DeVry University) may act as a measure of legitimacy for these schools, and thus

effect the founding rate of four-year degree granting for-profits in the population, whether or not they offer stock of their own.¹ I hypothesize:

H4.7: As the legitimacy of four-year degree granting for-profits increases (measured through the average yearly stock price of APOL/DVY), the founding rates of four-year degree granting for-profits will increase

In line with the hypotheses described above for density dependent legitimacy, I expect that this form of legitimacy will also transfer to FPCUs that offer two-year degrees. As I suggest in the section above, for-profits that are academically oriented and grant degrees are likely to be cognitively grouped, and thus the legitimacy gained by four-year degree granting for-profits from the healthy stock returns of a few publically offered chains should also extend to these two-year degree granting schools. In turn, this will lead to increases in the number of foundings of two-year schools. Therefore, I hypothesize:

H4.8: As the legitimacy four-year degree granting for-profits increases (measured through the average yearly stock price of APOL/DVY), foundings of two-year degree granting for-profit schools will increase

At the same time, I don't expect that this form of legitimacy will transfer to non-degree granting schools because they are not cognitively related to four-year degree granting forprofits in the same way. Non-degree granting schools are generally focused mostly or exclusively on vocational programs, and thus would likely not be considered by investors to be part of the academic for-profit movement that is experiencing exponential growth. Instead, I suggest that increases in the legitimacy of for-profits that offer academic degrees may in fact harm the cognitive legitimacy of non-degree granting for-profits. As a result, increases in the

¹ As the stock of these educational management corporations is sold in the national market, I do not expect this form of legitimacy to influence local organizational environments differentially. Therefore, I only offer this set of hypotheses at the national level.
legitimacy of four-year degree granting for-profits as measured by increases in stock prices may also lead to decreases in the foundings of non-degree granting for-profits.

H4.9: As the legitimacy four-year degree granting for-profits increases (measured through the average yearly stock price of APOL/DVY), the national foundings of non-degree granting for-profit schools will decrease

Effect of Competition from Traditional Colleges/Universities

As I mentioned early in this chapter, the new population of four-year degree granting for-profit schools is likely competing (or at least attempting to compete) with traditional colleges/universities for students (Bailey, Badway, and Gumport 2001; Morey 2004). This can be considered a relatively new development in higher education, as for-profit and traditional schools historically drew from separate populations with divergent educational goals. Now, however, a number of for-profit schools offer many of the same degrees that are awarded by traditional colleges. While it is not the case that for-profits are attracting highly qualified traditional undergraduates – it would be the very rare student, for example, that would struggle to decide between attending the University of Phoenix and an Ivy League school– they have been highly successful in increasing student enrollment through the targeting of certain sub-populations (Watson 2010).

When a new organizational population enters an environment its success will be dependent, at least in part, on the ability of the form to develop cognitive legitimacy (Baum and Powell 1995). This process is particularly important in the case of a new population that is attempting to grow in an environment with highly established organizational populations already present, such as the higher education marketplace. As I discussed above, previous forms of for-profit higher education did not really exist in the same niche space as traditional

colleges and universities, and were rarely in direct competition for the same resources. The introduction of for-profit colleges that offer advanced degrees in large numbers, however, has changed the relationship between for-profit and non-profit providers of post-secondary education. These schools represent a sort of "hybrid" organizational form that now has the potential to enroll at least some of the groups of students that might have otherwise attended a traditional school.

The potential for for-profit schools to pose a competitive threat to community colleges in particular has been a topic of ongoing and unresolved debate in the higher education literature. As recently as 2001, Thomas Bailey along with his co-authors, stated that for-profits do not represent a fundamental direct threat to community colleges (Bailey, Badway, and Gumport 2001). In a publication just one year later, however, Bailey wrote, "These institutions appear to have been able to attract adult students with strong occupational objectives. In the past, community colleges have prided themselves on being able to service precisely these types of students" (Bailey 2002 : 61). Clearly, more research on the effects of for-profits on traditional schools is necessary, but that question is outside of the purview of this dissertation. What the Bailey quote and similar findings from other scholars do show, however, is that forprofit schools are trying to enroll at least some groups of students that would have previously attended a community college. Thus, whether or not traditional schools interpret the for-profit newcomers to be a threat, for-profit degree-granting institutions likely see traditional schools, and community colleges in particular, as competitors. Therefore, I hypothesize:

H4.10: As the number of traditional colleges/universities (per state population) increases, foundings of degree granting (both two-year and four-year) for-profits will decrease

H4.11: As the number of community colleges (per state population) increases, foundings of degree granting (both two-year and four-year) for-profits will decrease

Plan of the Analysis

As my hypotheses indicate, I expect that a number of factors in the organizational environment will influence the foundings of all types of for-profit institutions. I therefore present three analyses comprised of nested models that introduce a number of variables in a stepwise fashion in order to clarify the different effects of these factors. Table 4.1 shows the results of the measures on the population of four-year degree granting for-profits, and Tables 4.2 and 4.3 report the results for two-year degree granting and non-degree granting institutions respectively. I separate my dataset into these three groups because I contend that for-profit higher education should not be viewed as one organizational population, as discussed above; additionally, I hypothesized different results for each level of for-profit school, requiring these separate models.

Results

One of the most important prerequisites to convincing a student to enroll in any postsecondary institution is that he/she must believe that the school is a legitimate organization that will provide a worthwhile educational experience. Whether or not this is truly the case is not the issue; instead, what matters is whether or not the organizational form is perceived as suitable by at least enough of the population for the organization to be successful. My study, in line with other organizational research, measures this legitimacy through density, which I hypothesized would resemble an inverted U-shaped curve. As Table 4.1 shows, in every model the national density of four-year degree granting for-profits was significant and positive, while the effect of this term squared was significant and negative, meaning that the effects of

density and competition at the national level are present and support hypotheses H4.1 and H4.2. In fact, even in the models that included density at the national level and all of the other independent variables (Models 11 and 12), an increase in the density of four-year degree granting for-profits in turn increased the odds of a new founding of this type of school by over two times until the carrying capacity was reached. At that point, it then lowered the odds slightly, making the opening of a new school approximately .92 times as likely to occur.

In the next Model (2) of this analysis, I introduce a variable that measures the effects of the percent of active for-profit schools that were run by publically owned corporations in a given year. I find that increases in the percentage of corporate schools strongly decrease the expected count of four-year for-profit foundings. This variable loses significance, however, when I include a dummy control for the era – before or after the 1992 FAFSA regulations were instituted (see Models 8, 10-11). In fact, I find that the timing of the FAFSA regulations strongly predicts the likelihood of a founding of four-year degree granting for-profits, with the likelihood of a founding increasing over five times across all of the models in which this term is included (in line with hypothesis 4.4). I discuss this result in more detail below.

In a separate regression (not shown) I included a term that measured the effects of the interaction between the percent corporate and the era, and that term was positive and significant. Therefore, increasing percentages of corporate schools lower the expected counts of new four-year schools foundings only in the modern era, which makes sense as there were very few corporate schools prior to the early 1990s. I suggest that this finding is further evidence of the effects of competition on four-year for-profit foundings. In the years since the 1992 FAFSA changes, the number of corporate-owned for-profit campuses has experienced

exponential growth and has been quite successful at gathering an increased share of the higher education market. This in turn has created increased competition with all four-year for-profit schools and increases in this type of school in particular lower the expected count of foundings.

In Models 3 and 4 I introduce a number of environmental variables that I anticipated could also influence founding patterns. These three variables are measures of environmental effects that could be expected to influence the expended founding count according to the literature on for-profits. The first, the percent of the state population that lives in urban locations, is included in my models because for-profit providers have often targeted large population centers with many potential students as a site for campuses (Sperling 2000). Across the models, this variable is generally non-significant, although when a measure of the number of community colleges per state population is included in the model, it does gain significance implying a possible suppressor effect.

The next two environmental variables are educational measures of the potential student population. The first, the percent of high school graduates that are black in the state, is included in my models because for-profit schools have tended to target non-traditional students, including minority populations that might not have otherwise entered postsecondary education. At the vast majority of for-profits that offer four-year degrees, however, a high school diploma is a prerequisite for enrollment and thus I do not provide a simple measure of the state's minority population. I find that this variable has a significant but very small effect in most of my models, and the percent of high school students that graduate is generally not a significant factor in the expected founding count. Overall, therefore, I find that these four

environmental controls do not affect in any significant way the foundings of four-year degreegranting for-profits.

On the other hand, the organizational environment in terms of the presence of traditional colleges does affect my expected founding counts, although not always in the direction that I suggested in hypothesis H4.11. In Model 5, I find that the number of community colleges per one million residents in the state actually has a positive and significant effect as opposed to decreasing the expected founding count through competition as I expected. Upon further reflection, this finding could result from a number of potential factors. First, as community colleges generally offer two-year degrees, they may actually be acting more as "feeder schools" than direct competition to for-profits that have Bachelor's degree programs. Additionally, higher numbers of community colleges could also imply greater state support for higher education in general, which could benefit for-profits as well even if they are not receiving direct state subsidies. Either way, this is a finding that implies the need for future research into the relationship between community colleges and the new for-profit form.

Table 4.1: Analysis of Effects of Ecological and Environmental Variables on the Founding of Four-Year Degree Granting For-Profit Colleges/Universities

| Variables | Model 1 | | Model 2 | | Model 3 | | Model 4 | | Model 5 | | Model 6 | | Model 7 | |
|---|---------|-----|---------|------|---------|------|---------|-----|---------|------|---------|-----|---------|------|
| National Density of 4-Year FPCUs | 4.32 | *** | 6.01 | *** | 6.07 | *** | 6.31 | *** | 7.46 | *** | 6.01 | *** | 7.04 | *** |
| Nat. Density of 4-Year FPCUs Squared | 0.87 | *** | 0.84 | *** | 0.84 | *** | 0.84 | *** | 0.83 | *** | 0.84 | *** | 0.83 | *** |
| State-Level Density of 4-Year FPCUs | | | | | | | | | | | | | | |
| State-Level Density of 4-Year FPCUs Squared | | | | | | | | | | | | | | |
| Percent of Active For-Profits that are Corporate | | | 0.04 | *** | 0.04 | * | 0.05 | * | 0.10 | | 0.03 | ** | 0.08 | * |
| Environmental Variables | | | | | | | | | | | | | | |
| Percent of State Population that Lives in an Urban | | | | | 1.00 | | 1.00 | | 1.01 | *** | 0.99 | | 1.01 | *** |
| Setting | | | | | | | | | | | | | | |
| Percent of High School Graduates that are Black | | | | | | | 1.01 | ** | 1.00 | | 1.01 | ** | 1.01 | * |
| Percent of High School Students that Graduate | | | | | | | 0.99 | | 0.98 | ** | 0.99 | | 0.99 | |
| Traditional College/University Variables | | | | | | | | | | | | | | |
| Number of Community Colleges per 1 M state residents | | | | | | | | | 1.19 | *** | | | 1.17 | *** |
| Number of Traditional Colleges per 1 M state residents | | | | | | | | | | | 0.97 | *** | | |
| Average In-State Community College Tuition and Fee Cost | | | | | | | | | | | | | 0.98 | *** |
| Eras | | | | | | | | | | | | | | |
| After New FAFSA Regulations (1993-2010) | | | | | | | | | | | | | | |
| Stock Prices | | | | | | | | | | | | | | |
| Apollo Stock | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Ν | 679 | 92 | 67 | 92 | 67 | 92 | 67 | 92 | 67 | 92 | 67 | 92 | 67 | 92 |
| Negative Log Likelihood | -432 | 8.8 | -432 | 21.9 | -432 | 21.5 | -431 | 6.3 | -423 | 30.7 | -430 | 9.3 | -413 | 39.9 |

Notes: (1) All variables except for the FAFSA Era

dummy variable are lagged by one year

(2) Apollo Stock was not publically offered prior to 1995; therefore, Model 9 in all analysis only includes data from the years 1995-2010 *p<.05 **p<.01 ***p<.001

Table 4.1 Continued

| Variables | Model 8 | Model 9 | Model 10 | Model 11 | Model 12 | Model 13 | Model 14 |
|--|----------|---------|----------|----------|----------|-----------|-----------|
| National Density of 4-Year FPCUs | 2.63 *** | 2.39*** | 2.97 *** | 2.45 *** | | | |
| Nat. Density of 4-Year FPCUs Squared | 0.92 *** | 0.94 ** | 0.92 *** | 0.93 *** | | | |
| State-Level Density of 4-Year FPCUs | | | | | 1.02 *** | 0.99 | 1.01 |
| State-Level Density of 4-Year FPCUs Squared | | | | | 0.99 *** | 1.00 | 1.00 |
| Percent of Active For-Profits that are Corporate | 1.49 | 6.90 | 2.40 | 0.78 | | 13.02 *** | 10.30 *** |
| Environmental Variables | | | | | | | |
| Percent of State Population that Lives in an Urban | 1.00 | 1.00 | 1.01 * | 0.99 | | | |
| Setting | | | | | | 1.01 *** | 1.00 |
| Percent of High School Graduates that are Black | 1.01* | 1.00 | 1.00 | 1.01* | | 1.02 *** | 1.00 |
| Percent of High School Students that Graduate | 0.99 | 0.98* | 0.99 | 0.99 | | 1.00 | 0.97 ** |
| Traditional College/University Variables | | | | | | | |
| Number of Community Colleges per 1 M state resident | S | | 1.18 *** | | | 1.14 *** | |
| Number of Traditional Colleges per 1 M state residents | i | | | 0.97 *** | | | 0.96 *** |
| Average In-State Community College Tuition and Fee C | ost | | 0.98 *** | | | 0.98 *** | |
| Eras | | | | | | | |
| After New FAFSA Regulations (1993-2010) | 5.83 *** | | 5.58 *** | 5.91*** | | 9.30*** | 9.07 *** |
| Stock Prices | | | | | | | |
| Apollo Stock | | 0.99 | | | | | |
| | | | | | | | |
| Ν | 6792 | 5784 | 6792 | 6792 | 6792 | 6792 | 6792 |
| Negative Log Likelihood | -4261.9 | -3855.9 | -4091.9 | -4254.2 | -4688.3 | -4114.6 | -4253.6 |

When the effects of traditional school density (including community colleges) per population is included in Model 6, however, my hypothesis that competition will lower the expected count was supported. Therefore, for four-year degree granting for-profits, competition may be with traditional four-year degree granting public and private schools as opposed to community colleges, which is a new development in the higher education environment. The extent to which this is occurring is also a direction for ongoing research. In Model 7, I include a variable that measures the cost of community college in the state and find that increases in the price of a community college education significantly lowers the expected founding count slightly. This finding is the opposite of what I would expect, and implies that for-profit schools are not entering the marketplace to fill a void for low-cost providers, even though one argument in support of for-profit education is that marketplace choice lowers cost (Ruch 2001).²

The final two variables that I include in my analysis are a dummy variable that distinguishes the modern era that began after the 1992 FAFSA regulations from previous years and the measure of legitimacy through the price of Apollo stock. Not surprisingly, the expected count of four-year for-profit foundings increases in the modern era – in fact, as I mention above, a new founding of this type of for-profit is over five times as likely (see Model 8). I do not find support, however, for my suggestion that cognitive legitimacy could also be indicated through the price of for-profit corporation stock (Hypothesis H4.7). In Model 9, I include a variable the measures the yearly price index for Apollo Corporation stock, which is has no

² In actuality, for-profits have come under attack for their high tuition cost, which is often much greater than an equivalent public education (Halperin 2012).

significant effect.³ In my analysis, measuring cognitive legitimacy through the measure of organizational density is the better indicator as suggested by population ecology theory. Taken together, these two findings offer mixed support for the concepts included in neo-institutional theory that I used to guide my hypotheses. Regulation does appear to be related to socio-political legitimacy and thus foundings, but my alternative measure of legitimacy through stock prices does not show any significant effect on founding rates.

Finally, along with hypothesizing about the effects of density at the national level, I also suggested that similar processes would occur at the state level. I expected this to be the case because for-profit schools can be generally classified as local providers, and in fact often market themselves as convenient and close options (Ruch 2001). My results show, however, that for for-profit four-year degree providers, the processes of legitimacy and competition appear to be operating at the national but not the state level. In Model 12, with no other variables included, I find very weak support for the effects of density at the state level, with significant results but an almost negligible change in odds for both terms. As soon as other measures are included in analysis, these results are no longer significant (see Models 13 and 14, Table 4.1).⁴

It appears, therefore, that the processes of both cognitive legitimacy building and competition are occurring on the large scale for the new population of four-year degree

³ I also tried the yearly index of DeVry stock prices, with the same non-significant result, so I chose not to present that model in this analysis. Changing the variable to a measure of the percent gain or loss in the stock over the year also did not provide any significant or substantive changes to the analysis.

⁴ The distribution of four-year degree granting for-profits is not consistent across the United States, and a few states continue to have a small number of this type of institution. In order to make sure that these states were not creating my lack of findings, I also ran a regression that included only states that had at least fifteen four-year FPCUs in at least one year. The effects of state-level density remained non-significant, further supporting the finding the legitimacy and competition are national and not state-level processes for this type of institution.

granting for-profits. While I did expect to find this at the state-level as well, this finding is not necessarily surprising. Large chains of for-profits currently dominate the public perception of for-profit higher education (Kinser 2006), and many corporate for-profit chains are not confined to one state. It seems that as a result, the effects of the introduction of this new population also operate on a national scale.

Overall, my results show that both ecological and environmental factors affect the foundings of four-year degree granting for-profit institutions. Cognitive legitimacy and competition appear to operate at the national level only for these schools, but they are strong predictors of the expected founding count. In addition, organizational environment in terms of the presence of other institutions of higher education also affects the founding rate of these schools, although not always in the expected ways. I turn now to examinations of the effect of the introduction of this population on the foundings of two-year and non-degree granting for-profit institutions.

The analysis presented in Table 4.2 includes only for-profit institutions that offer twoyear but not four-year degree programs. Primarily, I find that cognitive legitimacy does appear to transfer from four-year to two-year degree granting for-profit colleges, at least in my models that do not account for the era. In line with hypothesis H4.3, as the national-level density of four-year FPCUs increases, the expected count of two-year for-profit foundings increases significantly. I also find that the density of four-year schools has a curvilinear relationship with two-year foundings in these models similar to the pattern discussed above. This implies that increases in the number of four-year schools in the population may increases the legitimacy of two-year for-profit schools, but these two groups of schools may also begin to compete for

students after the population reaches a certain point. Models 12-14 in this table provide further evidence of legitimacy transfer, as increases in four-year for-profit density at the state level also increase the expected founding count of two-year schools. It seems, therefore, that two-year schools may be benefitting from the growing population of four-year for-profit institutions. I do need to note, however, that in the models that include the FAFSA era variable in this analysis, the effects of national density are no longer significant, implying that this effect is era-specific, at least at the national level. State level density indicators remain significant even when the FAFSA era variable is included (see Models 13 and 14, Table 4.2).

Similar to the first analysis I presented, as the percentage of corporate for-profit schools in the population increases, the expected founding count of two-year degree granting forprofits as decreases, but this finding is also era-specific. The pattern of results related to competition from community colleges and traditional schools is also the same, which was especially surprising. I expected that two-year degree granting for-profits would compete with community colleges (see Hypothesis H4.11). Like the analysis of four-year degree granting schools, however, the presence of larger numbers of community colleges per population actually increases the expected founding count, although the effect is small. As it is not likely that community colleges would act as "feeder schools" to two-year degree granting for-profits, I believe that this result suggests an underlying process that supports both community colleges and for-profit schools. As suggested above, future research should look into this possibility. In line with hypothesis H4.10, on the other hand, I find that the presence of more traditional schools depresses the expected founding count of two-year degree granting for-profits.

| Variables | Mod | el 1 | Mod | lel 2 | Mod | lel 3 | Mod | lel 4 | Mod | lel 5 | Mod | lel 6 | Mod | lel 7 |
|--|------|------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|
| National Density of 4-Year FPCUs | 3.46 | *** | 3.27 | *** | 1.66 | *** | 2.29 | *** | 2.56 | *** | 2.14 | *** | 1.81 | *** |
| Nat. Density of 4-Year FPCUs Squared | 0.90 | *** | 0.90 | *** | 0.93 | *** | 0.90 | *** | 0.89 | *** | 0.91 | *** | 0.93 | *** |
| State-Level Density of 4-Year FPCUs | | | | | | | | | | | | | | |
| State-Level Density of 4-Year FPCUs Squared | | | | | | | | | | | | | | |
| Percent of Active For-Profits that are Corporate | | | 1.93 | | 0.03 | *** | 0.04 | *** | 0.05 | ** | 0.03 | *** | 0.04 | *** |
| Environmental Variables | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Percent of State Population that Lives in an Urban Setting | | | | | 1.01 | *** | 1.02 | *** | 1.03 | *** | 1.01 | *** | 1.02 | *** |
| Percent of High School Graduates that are Black | | | | | | | 1.01 | *** | 1.01 | *** | 1.01 | *** | 1.01 | *** |
| Percent of High School Students that Graduate | | | | | | | 0.96 | *** | 0.95 | *** | 0.97 | *** | 0.98 | *** |
| Traditional College/University Variables | | | | | | | | | | | | | | |
| Number of Community Colleges per 1 M state residents | | | | | | | | | 1.07 | *** | | | 1.02 | ** |
| Number of Traditional Colleges per 1 M state residents | | | | | | | | | | | 0.96 | *** | | |
| Average In-State Community College Tuition and Fee Cost | | | | | | | | | | | | | 0.97 | *** |
| Eras | | | | | | | | | | | | | | |
| After New FAFSA Regulations (1993-2010) | | | | | | | | | | | | | | |
| Stock Prices | | | | | | | | | | | | | | |
| Apollo Stock | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Ν | 198 | 48 | 198 | 848 | 198 | 48 | 198 | 848 | 198 | 848 | 198 | 848 | 198 | 348 |
| Negative Log Likelihood | -108 | 54.9 | -108 | 54.2 | -107 | 40.5 | -106 | 23.9 | -105 | 73.1 | -106 | 03.8 | -101 | 63.0 |
| Notes: (1) All variables except for the FAFSA Era dummy | | | | | | | | | | | | | | |

Table 4.2: Analysis of Effects of Ecological and Environmental Variables on the Founding of Two-Year Degree Granting For-Profit Colleges

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

| Table 4.2 Continued | | | | | | | | | | | | | | |
|--|---------|------|-------|------|----------|-----|----------|-----|----------|------|----------|------|----------|-----|
| Variables | Model 8 | | Mod | el 9 | Model 10 | | Model 11 | | Model 12 | | Model 13 | | Model 14 | |
| National Density of 4-Year FPCUs | 1.17 | | 1.71 | ** | 0.92 | | 1.10 | | | | | | | |
| Nat. Density of 4-Year FPCUs Squared | 0.98 | | 0.96 | ** | 1.01 | | 0.98 | | | | | | | |
| State-Level Density of 4-Year FPCUs | | | | | | | | | 1.08 | *** | 1.02 | *** | 1.03 | *** |
| State-Level Density of 4-Year FPCUs Squared | | | | | | | | | 1.00 | *** | 1.00 | *** | 1.00 | *** |
| Percent of Active For-Profits that are Corporate | 1.49 | | 19.00 | ** | 1.56 | | 0.93 | | | | 21.10 | *** | 2.30 | *** |
| Environmental Variables | | | | | | | | | | | | | | ľ |
| Percent of State Population that Lives in an Urban | | | | | | | | | | | | | | |
| Setting | 1.02 | *** | 1.02 | *** | 1.02 | *** | 1.02 | *** | | | 1.02 | *** | 1.01 | |
| Percent of High School Graduates that are Black | 1.01 | *** | 1.01 | *** | 1.01 | *** | 1.01 | *** | | | 1.01 | *** | 1.01 | *** |
| Percent of High School Students that Graduate | 0.96 | *** | 0.94 | *** | 1.01 | *** | 0.96 | *** | | | 0.97 | *** | 0.98 | *** |
| Traditional College/University Variables | | | | | | | | | | | | | | |
| Number of Community Colleges per 1 M state resider | its | | | | 1.02 | ** | | | | | 1.01 | * | | |
| Number of Traditional Colleges per 1 M state | | | | | | | | | | | | | | |
| residents | | | | | | | 0.97 | *** | | | | | 0.96 | *** |
| Average In-State Community College Tuition and Fee | e Cost | | | | 0.97 | *** | | | | | 0.97 | *** | | |
| Eras | | | | | | | | | | | | | | |
| After New FAFSA Regulations (1993-2010) | 2.89 | *** | | | 2.89 | *** | 2.85 | *** | | | 4.16 | *** | 3.65 | *** |
| Stock Prices | | | | | | | | | | | | | | |
| Apollo Stock | | | 1.00 | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| N | 198 | 348 | 135 | 84 | 198 | 848 | 19848 | | 198 | 348 | 19848 | | 19848 | |
| Negative Log Likelihood | -105 | 55.9 | -853 | 2.1 | -10097.7 | | -10533.5 | | -114 | 82.7 | -1014 | 15.4 | -4253.6 | |

I would like to note one final difference between the four-year degree and two-year degree analyses. In Table 4.2, the effects of the other environmental variables are all consistently significant. Each effect is small, but they do suggest that environmental factors have a stronger influence on the founding patterns of two-year degree granting schools, which may be more locally defined. It was especially interesting to find in this analysis that as the percent of high school students that graduate in a state increases, foundings of two-year for-profits decrease significantly. While this at first seems counter-intuitive (it would imply a smaller potential population of students to draw from), it could also be the case that states with "better" secondary education also have a stronger system of higher education that leaves less niche space for two-year degree granting for-profits.

In my final analysis of for-profit foundings (see Table 4.3), I examine the effects of my variables of interest on non-degree granting for-profit institutions. In Models 1 and 2, it appears that the density of four-year degree granting for-profits is having a similar effect on the foundings of non-degree granting schools as in the other two populations. However, beginning in Model 3 with the introduction of some environmental controls, the effect of density is no longer significant, while the density squared term remains negative and significant. According to Hocking (2003), results like these mean that the linear term is less important than the quadratic term, and could in fact be eliminated from the model. I did run the analysis (not shown) with the density term eliminated and it resulted in no substantive change in my results, so for parsimony's sake I have left that variable in my models. Further, in Models 8, 10 and 11 in which I control for the era, it is the linear density term that is significant and negative. In these models, my results indicate that as the national density of four-year for-profit institutions

rises, the expected count of non-degree granting for-profit foundings decreases by about half, which is in line with my hypothesis H4.4. It appears that as expected, for non-degree granting schools there is not a process of cognitive legitimacy transfer, but competition with degreegranting for-profits may in fact be negatively affecting the success of non-degree granting institutions.

I also do not find support for my hypothesis 4.6, in which I suggested that after the new FAFSA regulations the odds of a founding of non-degree granting for-profits would decrease. In the modern era that was ushered in after these regulations, non-degree granting for-profits are still over two times more likely to be founded. For non-degree granting schools, both of my hypotheses that came from neo-institutional theory were not supported, as the prices of Apollo and DeVry stock did not have any significant effect on founding rates as well.

Most of my other findings in this model are similar to the two regressions presented above, with a couple of notable exceptions. Primarily, the percent of high school students that graduate has no significant effect in this analysis, but the percent of the state population that lives in an urban setting is positive and significant, although small. The programs of non-degree granting for-profits are generally vocationally focused, so they may not require a high school diploma but will be drawing from a local population. Thus these findings are in line with what would be expected. Additionally, in this analysis the effects of larger numbers of community colleges and traditional schools are negative in the final models that include all of the variables, so the interesting finding relating to community colleges in the first two analyses does not apply to non-degree granting schools. The fact that the presence of traditional schools has a negative effect on the foundings of non-degree granting for-profits is actually unexpected

based upon the general consensus in the literature that for-profits that only offer certificates are so vastly different from traditional schools as to be operating in basically different spheres. In this case, I suggest that states with strong higher educational systems may in fact also keep certificate-level programs out through the provision of alternative options.

Finally, I would like to point out that in all three analyses, the expected count of forprofit foundings increased significantly after the 1992 FAFSA regulations were instituted. This finding shows the strong effect that federal programs and federal regulations can have on the for-profit system, a fact that will be critical in the coming years. Both at the state and national levels, a wide range of new regulations that attempt to limit the scale and breadth of the forprofit higher education system are being instituted (Hechinger and Lauerman 2012), and they will likely have far-reaching consequences for for-profits. The actual outcomes and the ways that the population of for-profit postsecondary schools respond to these changes, however, remains to be seen.

| Variables | Model 1 | | Model 2 | | Model 3 | | Model 4 | | Model 5 | | Model 6 | | Model 7 | |
|--|---------|-------|---------|-------|---------|-------|---------|-------|---------|------|---------|-------|------------|------|
| National Density of 4-Year FPCUs | 6.45 | *** | 7.76 | *** | 1.05 | | 1.06 | | 1.08 | | 1.06 | | 0.90 | |
| Nat. Density of 4-Year FPCUs Squared | 0.81 | *** | 0.80 | *** | 0.92 | *** | 0.92 | *** | 0.92 | *** | 0.92 | *** | 0.93 | *** |
| State-Level Density of 4-Year FPCUs | | | | | | | | | | | | | | |
| State-Level Density of 4-Year FPCUs Squared | | | | | | | | | | | | | | |
| Percent of Active For-Profits that are Corporate | | | 0.04 | *** | 0.04 | *** | 0.04 | *** | 0.04 | *** | 0.04 | ** | 0.04 | *** |
| Environmental Variables | | | | | | | | | | | | | | |
| Percent of State Population that Lives in an Urban | | | | | | | | | | | | | | |
| Setting | | | | | 1.02 | *** | 1.02 | *** | 1.02 | *** | 1.01 | *** | 1.02 | *** |
| Percent of High School Graduates that are Black | | | | | | | 1.01 | ** | 1.00 | ** | 1.00 | | 1.00 | |
| Percent of High School Students that Graduate | | | | | | | 0.99 | | 0.99 | | 1.00 | | 1.01 | *** |
| Traditional College/University Variables | | | | | | | | | | | | | | |
| Number of Community Colleges per 1 M state residents | | | | | | | | | 1.01 | * | | | 0.97 | *** |
| Number of Traditional Colleges per 1 M state residents | | | | | | | | | | | 0.97 | *** | | |
| Average In-State Community College Tuition and Fee Co | st | | | | | | | | | | | | 0.98 | *** |
| Eras | | | | | | | | | | | | | | |
| After New FAFSA Regulations (1993-2010) | | | | | | | | | | | | | | |
| Stock Prices | | | | | | | | | | | | | | |
| Apollo Stock | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Ν | 729 | 012 | 729 | 912 | 729 | 12 | 729 | 912 | 729 | 912 | 72 | 2912 | 72 | 2912 |
| | | | | | | | | | | | | | | - |
| | | | | | | | | | | | | | 38 | 066. |
| Negative Log Likelihood | -4079 | 98.60 | -4075 | 57.90 | -3969 | 96.90 | -3969 | 91.90 | -396 | 88.1 | -39 | 646.1 | | 2 |
| Notes: (1) All variables except for the FAFSA Era | | | | | | | | | | | | | | |

Table 4.3: Analysis of Effects of Ecological and Environmental Variables on the Founding of Non-Degree Granting For-Profit Institutions

Notes: (1) All variables except for the FAFSA Er dummy variable are lagged by one year *p<.05 **p<.01 ***p<.001

| Table 4.3 Continued | | | | | | | | | | | | | | |
|--|---------|------|---------|----------|----------|----------|------|-------|-------------------|------|-------|----------|-------|------|
| Variables | Model 8 | | Model 9 | | Model 10 | | Mod | el 11 | Model 12 Model 13 | | el 13 | Model 14 | | |
| National Density of 4-Year FPCUs | 0.56 | *** | 0.88 | | 0.47 | *** | 0.55 | *** | | | | | | |
| Nat. Density of 4-Year FPCUs Squared | 0.05 | | 1.03 | *** | 1.03 | *** | 1.01 | * | | | | | | |
| State-Level Density of 4-Year FPCUs | | | | | | | | | 1.04 | *** | 1.01 | *** | 1.02 | *** |
| State-Level Density of 4-Year FPCUs Squared | | | | | | | | | 1.00 | *** | 1.00 | *** | 1.00 | *** |
| Percent of Active For-Profits that are Corporate | 0.00 | *** | 0.60 | | 0.01 | *** | 0.01 | *** | | | 15.20 | *** | 12.10 | *** |
| Environmental Variables | | | | | | | | | | | | | | |
| Percent of State Population that Lives in an Urban | | | | | | | | | | | | | | |
| Setting | 1.02 | *** | 1.01 | *** | 1.01 | *** | 1.02 | *** | | | 1.01 | *** | 1.00 | |
| Percent of High School Graduates that are Black | 1.00 | * | 0.99 | * | 1.00 | | 1.00 | | | | 1.00 | *** | 1.01 | ** |
| Percent of High School Students that Graduate | 0.99 | | 0.96 | *** | 1.01 | *** | 1.00 | | | | 1.02 | *** | 1.02 | *** |
| Traditional College/University Variables | | | | | | | | | | | | | | |
| Number of Community Colleges per 1 M state resider | nts | | | | 0.97 | *** | | | | | 0.98 | ** | | |
| Number of Traditional Colleges per 1 M state | | | | | | | | | | | | | | |
| residents | | | | | | | 0.97 | *** | | | | | 0.97 | *** |
| Average In-State Community College Tuition and Fe | e | | | | | | | | | | | | | |
| Cost | | | | | 0.98 | *** | | | | | 0.98 | *** | | |
| Eras | | | | | | | | | | | | | | |
| After New FAFSA Regulations (1993-2010) | 2.90 | *** | | | 2.96 | *** | 2.91 | *** | | | 4.67 | *** | 4.39 | *** |
| Stock Prices | | | | | | | | | | | | | | |
| Apollo Stock | | | 0.99 | *** | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| N | 729 | 912 | 36288 | | 729 | 72912 | | 72912 | | 012 | 72912 | | 72912 | |
| Negative Log Likelihood | -392 | 26.0 | -245 | -24566.8 | | -37630.9 | | 75.5 | -449 | 90.8 | -3795 | 52.0 | -393(|)2.3 |

Summary of Findings

Higher education research on for-profits to this point has focused primarily on trends related to the growing population of four-year degree granting for-profits, and on the outcomes for students that attend these schools. My research here, however, considers the ways that this new organizational form has entered the environment and in turn affected the previously established populations of other for-profit types. I found that both ecological theories and environmental effects influence the foundings of four-year degree granting for-profit colleges, and the presence of this population has consequences for the founding patterns of two-year and non-degree granting for profits. I do not find, however, strong support for the hypotheses that were guided by neo-institutional theory.

For four-year degree granting for-profits, the presence of a growing population of forprofit schools that offer Bachelor's degrees increases legitimacy and thus foundings, but once the carrying capacity is reached it can also suppress future foundings. It appears therefore, that both increases in legitimacy and the effects of competition influence the founding rates of this population of schools at the national level. This pattern, that if graphed would resemble an inverse "U," supports the propositions of population ecology theory. I did find, however, that for this population, this relationship operates at a national level and not a more local realm (the state) as theorized by Greve (2002) and Lomi (1995).

I also found that the legitimacy garnered by four-year degree granting for-profits as their numbers increase appears to transfer to two-year for-profits, in turn increasing their foundings. This result supports the suggestions of Dobrev, et.al., (2006) that if an organization is cognitively similar to another organization, increases in legitimacy can be shared. In this case,

two-year degree granting for-profits appear to be similar enough to four-year degree granting institutions that as the four-year schools become more legitimate, two-year schools experience an increase as well and thus the number of foundings increases. This operates at both the national and state levels, suggesting that while the growth of cognitive legitimacy in the fouryear degree granting population may not be dependent on locale, closeness in geographic space may increase the likelihood of legitimacy transfer between related organizational types. The transfer of cognitive legitimacy does not appear to apply, however, to non-degree granting schools. As there was no significant relationship between the growth in foundings of four-year degree granting for profits and the odds of a new non-degree granting school entering the marketplace, we can assume that this type of school is not similar enough to gain the same advantages as the two-year degree granting school did.

Interestingly, increases in the density of four-year degree granting schools in fact significantly decreases the odds of non-degree granting for-profit foundings. This finding suggests that while non-degree granting for-profits do not gain the benefits of legitimacy transfer, they still are affected by increases in competition from growing numbers of four-year schools. As four-year degree granting schools offer academic degrees as well as vocational certificates, and often maintain an occupational focus within their academic programs (Bailey and Morest 2004), they may in fact be attracting students that would have otherwise attended a non-degree granting for-profit institution. Overall, it appears that four-year degree granting and non-degree granting for-profit schools are not grouped in the social consciousness closely enough to create the possibility of legitimacy transfer, but four-year degree schools are offering programs that create a competitive environment. The fact that these organizations can be in a

competitive relationship without also sharing the positive benefits of increases in legitimacy suggests a high level of complexity within the concept of legitimacy and how organizations are grouped socio-politically and cognitively.

While my findings did support the theories of population ecology related to density dependent legitimacy and competition, my results did not show much backing for my hypotheses related to neo-institutional theory. While the institution of the 1992 FAFSA regulations did increase the odds of a founding of both four- and two-year degree-granting for-profits, non-degree granting for-profits were also more likely to open in the modern era. In addition, my suggestion that cognitive legitimacy could also be indicated by the success of the public stock offered by for-profit corporations did not work out – increases in the price of Apollo stock (as well as DeVry stock) did not increase the founding rate of any type of for-profit institution. Overall, population ecology provided better predictions in terms of the foundings of this organizational population than neo-institutional theory. In this analysis, using both theories did not add a great deal of additional depth to my analysis of these foundings.

In term of environmental effects, the presence of traditional colleges and universities did matter to the expected founding counts of all for-profit types, and increases in the perpopulation number of all traditional school types decreased expected foundings across the board. When I looked at the presence of community colleges in particular, however, I found a positive correlation between higher numbers of two-year public institutions and the foundings of two- and four-year degree granting for-profits. As I mention in the results section above, there are a number of possible explanations for this finding, all of which are outside of the

realm of my data. This relationship, however, is definitely a potential starting point for future higher education research.

I also discovered that the influence of other environmental factors on for-profit foundings is generally unimportant. While at times these variables were significant, in every analysis the effects were small; even the measures designed to indicate the potential student population did not have a strong impact on expected founding counts. On the whole, this implies that for for-profit postsecondary schools, it is the organizational environment that is the most important determinant of the likelihood of a new for-profit institution opening.

Main Implications of These Findings

The results of the analysis presented in this chapter have theoretical and practical implications, both of which I discuss in this section.

Theoretical Conclusions and Implications

Along with indicating factors that are important to the foundings of new for-profit institutions of higher education, this analysis expands the scope of organizational theory. I suggested in my introduction that the for-profit population would be an interesting case for study for multiple reasons, and my findings support this assertion. As I describe above, postsecondary for-profits in the United States have a long history, with multiple periods of expansion and contraction in numbers and prominence. The new population of four-year degree granting for-profits, however, has experienced a level of success (as indicated by student enrollment numbers at least) that is unprecedented for this type of school. At the same time, the effects of regulation by accreditation agencies, national and state laws, and competition from not-for-profit postsecondary schools has influenced for-profit school

outcomes in the past, and we can expect that all of these factors will continue to be important to the future success of the for-profit population. The composition of this population as well as the current changes that it is undergoing, therefore, make it a noteworthy example from which to study the evolution of organizational populations.

I suggested that legitimacy would be particularly important to the founding rates of all postsecondary for-profit schools, and that using both population ecology and neo-institutional to conceptualize legitimacy would provide more comprehensive explanations of legitimacy's effects on foundings. My results show that increases in density and thus density-dependent legitimacy for four-year degree granting for-profits does influence the founding rates for that population, and further, this legitimacy appears to transfer to two-year degree granting forprofits as well.

These findings on legitimacy transfer have theoretical implications beyond just the forprofit population. As I discuss above, increases in the legitimacy of four-year degree granting for-profits results in growth in two-year foundings, and this operates at the state level as well as nationally. While a number of other studies of legitimacy transfer have used geographic boundaries to define populations (see, for example, Carroll and Wade 1991; Ingram and Inman 1996), it is also important to examine the ways that proximity can foster this process. Further, most of the work that has examined legitimacy transfer between organizational populations sharing resource space has been focused on the ways that a new group of organizations can benefit from the legitimacy of the established form (Barron 1998; Dobrev, Ozdemir, and Teo 2006). My work supplements these studies by demonstrating that when a new population is able to enter an organizational environment and gain legitimacy at a rapid rate, this legitimacy

can be transferred in the other direction: to organizational populations that are already present in the environment. In this case, two-year degree granting schools, which were not previously considered to be very legitimate forms of higher education (Kinser 2006), increased their foundings in the wake of four-year for-profit success.

At the same time, I do not find evidence of legitimacy transfer between four-year degree granting for-profits and those that do not offer degrees, which suggests that this transfer can only occur when the populations can be cognitively identified as similar "enough." This finding could have a number of implications for any organizational groups that are present in an environment with a newly emergent form. The new organizational form, if it is highly successful, could in turn benefit the organizations that are already present if they can align themselves with the new organizations and create a "collective identity" (Dobrev, Ozdemir, and Teo 2006). My results surrounding non-degree granting schools suggest that even if this does not occur, however, the new population may still compete with established populations for resources but without the beneficial effects of legitimacy transfer. Therefore, it may be in an established population's best interests to attempt to transform toward the emergent model if it is highly thriving, a proposition that I explore in the next chapters.

Finally, I find that once the number of four-year degree granting for-profits has increased to a certain level, competition effects then suppress founding rates in all degreegranting types of for-profits. Taken together, all of these results align with population ecology theory. I did not find much support, however, for using neo-institutional theory to guide my hypotheses about foundings in the for-profit higher education organizational population. My investigation of for-profit foundings is only the first of three included in this dissertation,

however. It is possible that using both theories is beneficial for understanding other organizational phenomena. I will thus continue to use both these theories in my investigations of transformations and closures.

Practical Conclusions and Implications

This analysis also has two main practical implications, the first of which relates to my findings on density and legitimacy. As I discuss above, I found evidence of a density-dependent relationship between historical and current founding rates in the four-year degree granting forprofit population and the pattern of new openings. My research indicates that for this population cognitive legitimacy has been rising, leading to more foundings to the point of high competition. Generally, we would expect this pattern to continue, with ongoing increases in cognitive legitimacy in response to a sustained pattern of growth. In the current political and social climate surrounding these schools, however, this may not be the case.

In order for an organizational type to have cognitive legitimacy, it must achieve a certain level of "taken for grantedness" that the form is the best option of any realistic potential alternatives (Zucker 1987). While four-year degree granting for-profits were beginning to achieve social acceptance in the late 1990s and early 2000s as an educational option (even if not a prestigious one), developments in recent years have begun to eat away at the legitimacy that these institutions previously gained. Ongoing concerns regarding student outcomes have damaged any educational reputation these schools did have (Deming, Goldin, and Katz 2012), and the most recent financial numbers may indicate that they are no longer successfully meeting their profit generation goals as well (Luzer 2011).

It appears, therefore, that the four-year degree granting for-profits' future will rely in no small part on how they "manage" their legitimacy in the future (Suchman 1995). According to Suchman, maintaining legitimacy requires two strategies: one, perceiving future changes and adjusting to them, and two, protecting past accomplishments. The first of these fits well with the strengths of the corporate for-profit system, which has been known for its ability to adapt quickly (Ruch 2001). Thus, it is possible that in the coming years these for-profit schools will be able to foresee the requirements of the sociopolitical environment and make the necessary changes to keep or even gain legitimacy. The potential for this system to meet the second requirement of protecting past accomplishments is debatable, however, as these schools have had questionable educational success. One technique that the corporate for-profit system does have at its disposal, however, is the vast marketing system that is already in place.

As a general rule, legitimacy management by any organization rests on communication between the organization and its various audiences (Elsbach 1994; Pfeffer 1981). In the words of Suchman:

"[organizations] can stockpile cognitive legitimacy, primarily by constructing communication links between the organization and its social surroundings. Frequent and intense interaction creates dense webs of meaning that can resist, survive, and repair disruptions in individual strands of understanding" (1995 : 596).

If this is the case, four-year degree granting for-profits' legitimacy maintenance and survival rests on communication. Currently, these schools spend more on advertising then they do on instruction (Health Education Labor and Pensions Committee 2012), so the infrastructure for large-scale public opinion campaigns is already in place. Whether this will be enough to combat the negative publicity that has already occurred, however, remains to be seen. In the next few years, the fate of the corporate for-profit system will hinge on the outcome of this struggle.

Further, legitimacy maintenance by the population of four-year degree granting forprofits does not affect only those schools. My results suggest the presence of legitimacy transfer between four- and two-year schools, so it is likely that two-year degree granting forprofits will see their success/failure align to a significant extent with the current state of the four-year degree granting school system. This will probably be less the case for non-degree granting for-profits that did not appear to gain legitimacy from four-year degree granting schools in my analysis, although the new regulations being enacted will apply to these schools as well. Therefore, non-degree granting for-profits will have a stake in lobbying and the public relations campaign that corporate for-profits are likely to begin in response to the current sociopolitical view of these schools.

The findings of this investigation also have important implications for our understanding of the relationship between for-profit and traditional not-for-profit institutions of higher education. Historically, there has been a perception by scholars these schools were distinct enough to necessitate separate academic studies, and in general they were not expected to compete with or influence and/or be influenced by TCUs to any measurable extent (Kinser 2007). My research shows, however, that competition does exist between TCUs and for-profits. In fact, for-profits are less likely to be founded in states with higher per-population concentrations of TCUs. Instead, for-profits are opening in locations where students have less educational options, indicating that they are acting as a viable educational alternative for students that are not able to access a traditional college/university.

This could be an especially important finding in light of current concerns with overcrowding in higher education (Penley 2010). If the traditional system is not able to

accommodate all of the students that desire a postsecondary degree, they may turn to forprofit schools to fill that role. This possibility has important implications for both the student and the state, however, as for-profit tuition is on average higher than the cost of an equivalent degree from a public college/university. These students will be more reliant upon both governmental aid and private loans to pay for these degrees, with far-reaching economic implications. At the extreme, the costs to the state of the high number of loan defaults associated with a for-profit education (Lewin 2010b) may be higher than funding additional public options.

On a related note, my results show that for-profits are slightly more likely to be founded in states with more community colleges per capita specifically (as opposed my finding on TCUs in general). This suggests that for-profits are opening more often in states that provide greater support for educational institutions that do not match the most traditional model of the TCU that offers bachelors (and possibly graduate) degrees. Overall, then, we should expect that the future growth of for-profits, and the corporate for-profit system in particular, will be concentrated in states with lower numbers of TCUs and more liberal funding for "alternative" higher education. In terms of policy, this has critical implications as some states begin to enact state-level laws focused on limiting the for-profit system. I expect that in the coming years, states that do not institute similar regulations will see an influx of for-profit foundings, which may in turn place a burden on their educational budgets. In this way, all states may be forced to "fall in line" with the most restrictive regulations currently being enacted in certain states.

Conclusion

Through this investigation of for-profit foundings, I draw a number of important conclusions. First, I found evidence that density-dependent legitimacy and competition effects operate for for-profit schools that offer four-year degrees, and that the density of this population in turn influences the founding outcomes of schools that offer two-year degrees. This result suggests that legitimacy transfer does not only transfer from an established population to a new form that enters the environment and instead can occur between any organizational populations that are cognitively related. At the same time, determining what creates cognitive relationships between types of organizations can be complex. In this example, it was not for-profit postsecondary status alone that created legitimacy transfer between these schools, but also that they offered official degrees rather than certificate programs. This means that organizations can create a collective identity and benefit from the legitimacy that has been gained by other related populations, but this process is dependent upon cognitive categorizations by the audience that are not always clear or predictable (Dobrev, Ozdemir, and Teo 2006).

As I discussed above, I also expect that states will be forced to respond to the patterns in for-profit foundings that I unearthed in this work within the next few years. My research suggests that for-profits are opening in states that either 1) offer greater financial support to schools that offer something other than the traditional bachelor's level education or 2) have a shortage of postsecondary options. As a result, states with either of these characteristics can be expected to be the focus of for-profit foundings in the coming years, especially as other states institute strict requirements aimed at curbing for-profit growth (The Office of the

Minnesota Attorney General 2012). As this possibility could have significant financial implications, I expect to see most states across the nation pass similar anti-for-profit laws in a sort of "domino effect." How for-profits will respond to the changes is unclear at this point, however, and will be an interesting area for higher education research in the future.

<u>CHAPTER 5</u>

Changes within the Environment: An Analysis of Degree Level Transformations by For-Profit Institutions of Higher Education

Traditional higher education has tended to change slowly, and large structural changes are uncommon. In the for-profit system, however, readiness and ability to change is valued and expected to increase success (Ruch 2001). Therefore, it is not surprising that along with the introduction of new for-profit postsecondary schools, changes in the number and predominant types of degree-granting for-profit schools in the population has also occurred due to transformations by these schools. In particular, a relatively large number of for-profit schools have experienced conversions in degree-granting status. This change is especially important as it could be an indicator of the movement of for-profit higher education toward the mainstream (Kinser and Levy 2005). As described above, current academic and public concern with this educational form has centered upon the transformation of the "average" FPCU from the small vocational school into a larger model more in line with general perceptions of what constitutes a "college," in part because this type of school could potentially compete with traditional colleges and universities for resources and students.

Additionally, in recent years, a number of states as well as the federal government have passed progressively stricter regulations on for-profit schools that will affect their eligibility for FAFSA and potentially even their right to operate (Kelly 2001; Sanchez 2011). As a result, there will be a great deal of pressure on for-profit schools to transform toward the model of

traditional schools in order to achieve both perceived and legal legitimacy. There are a variety of changes that FPCUs could institute to conform to the model of traditional schools, such as moving toward tenure or shared governance systems or providing research funding, but case studies conducted so far have not show these processes occurring to any large extent (Lechuga 2010; Ruch 2001). As a result, I focus on transformations in degree-granting status as a good indicator the ways that for-profit schools are changing to meet new requirements.

Arguably, a change in degree-granting status is one of the most drastic transformations that a postsecondary school can undergo, as the highest level of degree offered by an institution is often a main contributor to how a school is structured and classified (McCormick and Zhao 2005; USNEI 2008). Changing the level of degree offered is also highly uncommon in traditional schools⁵ (Knapper and Cropley 2000; Moltz 2010). Thus, it is an interesting example of the ways that for-profit institutions of higher education are attempting to adapt to changes in the organizational environment. My data show that transformations "up" toward offering a higher level of degree (i.e. a school with only associate's degrees adding a bachelor degree program) are actually relatively common in the for-profit population. In fact, just over 50 percent of schools that originally offered only two-year degrees transition to offering four-year degrees during the study window, while 12 percent of non-degree granting for-profits begin to offer an associate's degree to students.⁶ Transitions "down," on the other hand, occur with less

⁵ This may also be changing in the modern era, as community colleges in some states have begun to add bachelor degree programs. For example, since a controversial bill passed in Florida in 2008, 18 of the 28 community colleges in the state now offer baccalaureate degrees (Moltz 2010). The relationship between this new movement and the growing population of four-year degree granting for-profit schools is unknown, but merits further research.
⁶ As discussed in the variable descriptions found in Chapter 3, it is potentially possible for an

institution to experience a "double transformation" in which a for-profit school that offers four-

frequency (about 5 percent of four-year degree granting and 7 percent of two-year degree granting schools transition down), but represent an interesting contrast to the move toward offering higher degrees by for-profit institutions of higher education and may also represent a way that for-profits are responding to environmental factors.

| Tigher Eddeation | | | | | | | | | | |
|---|--|---|---------------------------------------|---------------------|--|--|--|--|--|--|
| | Four-Year Degree Granting For-Profits | Two-Year Degree Granting For-Profits | Non-Degree Granting For-Profits | All For- Profits | | | | | | |
| Transition "Up" | | | | | | | | | | |
| (Percent) | N/A | 51 | 12 | 25 | | | | | | |
| Transition "Down" | | | | | | | | | | |
| (Percent) | 5 | 7 | N/A | 7 | | | | | | |
| No Transition | | | | | | | | | | |
| (Percent) | 95 | 41 | 88 | 68 | | | | | | |
| Column percentages may not sum to 100 due to rounding | | | | | | | | | | |

Table 5.1: Transformations in Degree-Granting Status by For-Profit Institutions of

 Higher Education

The extent to which forces in the organizational environment such as competition or regulation may be causing FPCUs to adapt to be more similar to traditional colleges and universities is not yet clear and requires further study (Floyd 2005). Thus far, most of this research has only been able to hypothesize about these effects, as research on for-profit colleges and universities has generally been limited to cross-sectional descriptive analyses that do not allow for causal order to be established. In this section, I will improve upon these

year degrees would first offer only two-year degrees and then transform again to only offer certificate programs, or vice versa. While this may begin to occur with more frequency in the future, this type of occurrence is extremely rare in my data (less than 2 percent of cases). As a result, I dropped the few cases that did transform twice from my analysis.

current understandings through a series of analyses using the IPEDS longitudinal data. These analyses will allow me to look at transformations in the population of for-profit educational institutions over time in order to better identify the current status and implications of the changing for-profit population in the higher education landscape.

In this portion of the analysis, I specifically examine the way that the introduction of a large number of four-year degree granting FPCUs in the market, in conjunction with regulatory changes over time, has led to organizational transformation in the population. As mentioned earlier, my dataset is particularly suited to an analysis of this sort because schools are tracked in each survey by one identifier regardless of any institutional changes. My hypotheses in this chapter are guided by the neo-institutional approach, which (as discussed above) focuses on the ways that behavior within organizations is influenced and shaped by the regulative, normative, and cognitive structures that make up the institutional environment (Palmer and Biggart 2002; Scott 2008).

Past research on for-profit colleges and universities suggests that this is an organizational population that is likely to be highly susceptible to transformation; in fact, as mentioned earlier, the ability to evolve to meet changing market demands is often cited as a key positive aspect of for-profit institutions of higher education (Hentschke, Lechuga, and Tierney 2010). In this case, I expect that the legitimacy of the four-year degree granting FPCUs will create a mimetic isomorphic process in which for-profit schools not of this type will attempt to undergo changes that move them toward the legitimate organizational form. Specifically, I focus on the type and level of degree that is offered by a school.

Institutional Theory: Legitimacy and Competition

I would like to note that I focus on neo-institutional theory in this chapter before returning to the use of both population ecology and neo-institutional theories in Chapter 6. I do this because population ecology theory takes as an assumption that organizations that survive are reliable and accountable – but a byproduct of this is a high degree of inertia (Hannan 1984). In addition, population ecologists suggest that organizational change occurs through selection, but I am looking at change within an organization in these analyses. In the next chapter, I continue my overall analysis of for-profit institutions of higher education by looking at the effects of these changes on the mortality of these schools, guided again by both neo-institutional and population ecology theories.

There are two important assumptions in neo-institutional theory that I use to guide the hypotheses in this portion of the dissertation: one, that the legitimacy of an organization is central to the long-term survival of that organization and that it is implicitly a goal of all organizations, and two, that legitimacy is garnered through modeling behavior to match widely accepted norms. These assumptions has been generally supported in the literature (Ruef and Scott 1998; Zucker 1987), and empirical work using institutional theory has been able to address a number of important research questions, including Where do institutional norms and constrains come from?, What effect do they have on organizations?, and How does change in institutional environments diffuse? The question of where institutionalized structures originate has been especially central to the development of the theory, but the focus of research on this topic has changed over time. Originally, there was a great deal of interest in the creation of
regulative and normative structures, but since the 1980s there has been increasing amounts of work on the basis of shared cognitive schemas about how to achieve efficiency and effectiveness (Palmer and Biggart 2002).

In terms of the question of institutional change in the environment, the seminal work on the processes by which organizations take on institutionalized forms was by DiMaggio and Powell (1983). According to them, there are three mechanisms for the adoption of institutions. First, they can spread through coercive pressure such as laws and regulations, or alternatively, organizations may adopt certain structures through normative pressure to conform to expectations. Finally, institutions may proliferate through mimetic processes if organizations copy behaviors and practices that they assume are effective.

Overall, then, institutional theory has identified a number of the reasons for and processes by which organizations are influenced by their environments to adopt institutions, which then take on a life of their own and become "relatively self-activating social processes" (Jepperson 1991: 145). These institutions, in turn, provide legitimacy for the organization which then improves overall survival chances (Ruef and Scott 1998). According to Aldrich and Ruef (2006), it is important to note that a common theme of the theory is the supremacy of the environment in determining organizational behaviors and outcomes. In this broad preposition, institutional theory is similar to ecological theory, which also gives precedence to environmental factors in determining many factors that influence organizations. As stated above, however, ecological theory is a theory of selection and thus engages in different assumptions and research questions.

Based upon my discussion above, I suggest that as the four-year degree granting forprofit form becomes increasingly legitimate, there will be increasing pressure to maintain that model. This pressure may come from regulatory bodies or pressure to maintain cognitive legitimacy; either way, I expect the likelihood that a four-year school will transition down to only offering associate's degrees will decrease.

H5.1: As the legitimacy (measured by density) of four-year degree granting FPCUs increases, the likelihood of a four-year degree granting for-profit school transitioning to offer only two-year degrees will decrease

In addition, I expect that as the legitimacy of four-year degree granting for-profit colleges increases, schools that do not offer degrees higher than the associates level will attempt to transition "up" to offering programs which result in a bachelors or post-graduate degree. I hypothesize:

H5.2: As the legitimacy⁷ (measured by density) of four-year degree granting FPCUs increases, the likelihood of a two-year degree granting for-profit school transitioning to offer four-year degrees will increase

Furthermore, it is likely that postgraduate for-profit institutions that do not offer

degrees will be subject to similar pressures caused by the growing legitimacy of four-year

degree granting for-profits. In this case, however, the transition that these schools make may

be to granting degrees in general, not necessarily to offering four-year degrees. In other words,

it may be the case that for organizations in the population that have a form that is more

⁷ In the previous chapter I discovered that legitimacy as measured by density at the state level was either not significant or had a small effect on the foundings of all types of postsecondary for-profit institutions, suggesting that for for-profit institutions, legitimacy operates at the national level. I conducted initial analyses (not shown) to see if this was also the case when it came to predicting the likelihood of a transition, and found that state level density was non-significant across all of my models. Therefore, for theoretical and substantive reasons, I conceptualize legitimacy only through national density in the rest of my analyses.

disparate from the legitimated one, a transformation may not initially mimic the institutionalized norm exactly, but they will still engage in change toward this form. Similar to the idea of the quasi-option value introduced by Arrow and Fisher (1974), non-degree granting for-profits may introduce two-year degrees as a way to balance the isomorphic pressure from the growing legitimacy of four-year degree granting institutions and the investment costs and uncertainty that come with a drastic structural change such as adding a degree program. Either way, however, I think that the growing legitimacy of the four-year for-profit model will lead to transformations "up" to offering two-year degrees by schools that did not previously offer a degree program. I hypothesize:

H5.3: As the legitimacy (measured by density) of four-year degree granting FPCUs increases, the likelihood of a non-degree granting for-profit school transitioning to offer a two-year degree program will increase

Finally, I would like to offer one more possible outcome for transformation in two-year for-profit schools in the face of increasing competition with four-year degree granting FPCUs caused by the increasing density of this system. As stated above, FPCUs that offer only twoyear degrees face competition from four-year degree granting schools, as many four-year schools also offer similar two-year programs. As a result, these two-year programs may be faced with the need to transform to meet the changing market, but adding four-year degrees may not be a possible for all of these schools due to the high resource burden of this transition. In this case a two-year degree granting for-profit school may instead transition "down" toward the "historical" for-profit model of a focus on non-degree granting certificate and vocational programs. Similar to the idea of a bifurcation point within an organization which can be defined something that forces behavior to branch onto two separate paths (Aula 1999), I suggest that the market of for-profit education will bifurcate and two-year degree granting FPCUs will either transition "up" as hypothesized above toward offering four-year degrees or "down" toward not offering degrees. Therefore, I present the following hypotheses:

H5.4: As the national legitimacy (measured by density) of four-year degree granting FPCUs increases, the likelihood of a two-year degree granting for-profit school transitioning to no longer offer a degree program will increase

As this process is likely related to the resources available to the school, in this portion of the dissertation I also explore whether measures of resource availability influence the relationship between for-profit schools and transitions "up" or "down." One potential competitor for resources in the environment may be community colleges; as indicated above, some evidence suggests that this is at least beginning to be the case. I expect that two-year degree granting schools, with the most similar degree offerings, will be the most likely to experience this competition and thus may transition toward the four-year degree granting norm. I hypothesize:

H5.5: As the number of community colleges per state population increases, the likelihood that a two-year degree granting for-profit school will transition up will increase

At the same time, it is also possible that competition from community colleges will create a bifurcation in the transition pattern, as two-year degree granting schools may also discontinue associate's degree programs and transition back to the historical for-profit model of offering only non-degree programs. Therefore, I also hypothesize:

H5.5.1: As the number of community colleges per state population increases, the likelihood that a two-year degree granting for-profit school will transition down will increase

If competition is occurring between for-profit institutions of higher education and community colleges, this should also lower the likelihood that a for-profit offering either four-year degrees or not offering degrees at all would transition to the two-year form. I hypothesize:

- H5.6: As the number of community colleges per state population increases, the likelihood that a four-year degree granting school will transition down will decrease
- H5.7: As the number of community colleges per state population increases, the likelihood that a non-degree granting school will transition up to offering two year degrees will decrease

In addition, corporate status may offer for-profit schools better access to resources since revenue can be generated on the front end through investments. Many corporate-owned schools are also part of a larger chain of institutions, and thus may have resources available to support transformation to include a new degree program such as pre-determined and approved curricula. At the same time, corporate for-profits are subject to greater oversight and demands by board members and investors (Ruch 2001) which could create additional pressures to conform to the organizational norm of offering degrees or adding bachelor degree programs. If the owners and shareholders of these organizations perceive the offering of higher level degrees as a measure of success and the loss of a degree level as a sign of failure, there will be additional pressure to transition up and not down. I hypothesize:

H5.8: Corporate-run for-profit institutions will be more likely to transition up and less likely to transition down

Neo-Institutional Theory: Regulation

In higher education, two main forms of regulation exist: governmental regulation and accreditation. There is reason to expect that governmental regulation will have an increasingly

strong effect on for-profit higher education in the coming years, as new state and federal laws passed within the last year begin to be instituted (the stipulations and potential effects of these laws are discussed in more detail in the conclusion chapter (7)). For the years included in my data, however, the most important form of governmental regulation for for-profit schools has come from the laws relating to federal aid, especially since the new requirements instituted under Title IV of the Higher Education Act in 1992 (recall Chapter 2). Qualifying for financial aid programs has been central to for-profit success and growth (Scott-Clayton 2012), and some of the requirements for eligibility include offering at least a 10-week educational program with verified placement outcomes and being accredited by a recognized agency (Pinnell 2012). As a result, I expect that in the Modern Era (beginning after the new FAFSA rules were passed in 1992), for-profit schools will be more likely to transition up toward offering degrees, especially four-year degrees. I hypothesize:

H5.9: After 1992, the likelihood that a two-year degree granting school will transition up to offering four-year degrees or a non-degree granting school will transition up to offering two-year degrees will increase

Along with these laws, institutions of higher education are also regulated through accreditation agencies, which have also become increasingly important to for-profits in the modern era. As I explain in Chapter 2, historically, most for-profit postsecondary schools were not accredited by any agency, but during the last two decades or so it has become one of the primary indicators of legitimacy (U.S. Deparment of Education 2012). In addition, accreditation agencies have become the gatekeepers to financial aid, so achieving accreditation through an agency recognized by the U.S. Department of Education has become especially critical to forprofit schools. At the same time, many of these agencies have resisted allowing postsecondary for-profit schools to become members, at least in part because the historical for-profit model did not fit the educational criteria established by these organizations (Kinser 2006). As forprofits have moved toward a more traditional model of higher education they have gained admittance to national as well as regional accreditation agencies, and offering associates and bachelor's degrees are one easily quantifiable indicator of adherence to traditional educational standards. For this reason, I expect that a school that has already achieved accreditation will be much less likely to transition down, as that would probably be taken as a signal of academic failure by an accreditation agency, and could lead to the loss of the status. At the same time, having accreditation provides a school with additional resources including access to financial aid and the ability to advertise the legitimate status of the organization. Therefore, I also suggest that an accredited school will be more likely to transition up. I hypothesize:

H5.10: If a school is accredited by a regional or national accreditation agency, it will be more likely to transition up and less likely to transition down

Methodology Used Only In This Chapter

In Chapter 3, I provide a discussion of the data and methodology that I use throughout this thesis. Due to the analytical requirements of this chapter, however, I have engaged some data manipulation and an additional type of logistic regression that are only used in my transformation analyses. I discuss these additional methodologies in this section, and then turn to my results.

Primarily, due to the design of my data, I encountered an issue that is common to epidemiology research: the problem of right censoring during the study window due to "participant" dropout or death (Abraham and Russell 2004; Touloumi, Pocock, Babiker, and Darbyshire 2002). In the case of the IPEDS data, if a school closed prior to the final survey year but had not experienced a transition as described above, they were no longer at risk for the event due to closure. This is problematic and can produce bias and model misspecification, especially if survey dropouts do not occur at random (Touloumi, Babiker, Pocock, and Darbyshire 2001). As Chapter 6 shows, closure in the population of postsecondary for-profit schools is not random, and thus I analyzed my data using two different methodologies for dealing with this type of right censoring that have been discussed in the epidemiology literature and compare the outcomes provided by each.

The first and most conservative option for dealing with missing data due to dropout is complete case analysis, where all cases that experience dropout at any wave are eliminated from the data (Abraham and Russell 2004). As discussed above, this can cause model misspecification, but whether/to what extent this would impact my models is not clear. Primarily, for-profit closures do not occur in similar numbers across all types of schools. Of all four-year degree granting for-profits included in the IPEDS data, for example, only 22 percent have closed, and the closure rate of two-year degree granting for-profits is 30 percent. In terms of non-degree granting postsecondary schools, however, over 66 percent have closed since the first year of my survey data in 1987. In an event history analysis, however, not all of these closures would be considered a dropout, because a number of schools experienced the event in question (a transition) prior to closure. As a result, a complete cases analysis would lose only 20 percent of four-year degree granting for-profit cases and 16 percent of two-year for-profit cases, but would exclude 61 percent of non-degree granting cases. Therefore, while we may expect that this case-wise deletion of dropout would likely affect the findings of an analysis of

transition in non-degree granting for-profit schools, it might have little influence on analyses of degree granting schools. Even so, a methodology that avoids deleting high percentages of the cases in the data would be preferable.

Overall, there is some reason for concern that dropping all incomplete cases would be problematic. Therefore, I also engaged in another method for dealing with incomplete data due to dropout suggested in the epidemiology literature: inverse probability weighting (Dufouil, Brayne, and Clayton 2004). In this method, if an observation *i* has a probability of being observed of p_i , then *i* should be weighted as $1/p_i$ in the analysis. For longitudinal data, this is accomplished by creating a "life table model" for remaining in the study (Robins, Rotnitzky, and Zhao 1995). The life table calculations are given by

$$p_{i1} = 1 - \pi_{i1}$$
 $p_{i2} = (1 - \pi_{i1}) \times (1 - \pi_{i2})$ $p_{i3} = (1 - \pi_{i1}) \times (1 - \pi_{i2}) \times (1 - \pi_{i3})$...

where p_{it} is the probability that subject *i* will be lost at wave *t* by π_{it} .

Next, data missing due to drop-out is replaced by giving available observations at t the weight of $1/p_{it}$ in subsequent waves. The probabilities of loss are estimated by conducting a regression analysis in which continued participation in the survey is the outcome and other explanatory measures (in this case, age and sector) are independent variables.

After calculating life table probabilities for a case remaining in the study, I created a weight variable that was included in my analyses using the Stata pweight command. Finally, I ran my final models using each methodology (complete case analysis and inverse probability weighting) to compare the effect that each had on my findings. The models using complete case analysis (the methodology I did not use for the results presented in this chapter) can be found in Appendix A, Table 1 for comparison purposes. As I expected, due to the relatively low

number of dropouts prior to the event for both four-year and two-year degree granting forprofit institutions, my results were very similar the same, with the same substantive findings and little variation in the odds.

For non-degree granting for-profits, the findings on my main variables of interest lead to the similar substantive conclusions, although there were a few differences in the conclusions I would draw about my control measures. For example, in the model I present in Table 5.3, the density squared but not the density term is negative and significant, but in Appendix Table 1 both terms show a significant negative effect. In both of these cases, I would draw similar conclusions about the effect of the national density of four-year for-profits on the likelihood of non-degree granting school transitioning up. Additionally, there are a few school characteristic variables that are non-significant in my conservative model presented in Appendix A, but are significant in Table 5.3. While these differences are worth noting, due to the overall general equivalency of my findings I decided to err on the side of including more of my data in my analyses and present models that were run using inverse probability weighting.

Finally, one other variation in methodology that occurs only in this chapter is the use of multinomial logistic regression. As discussed in Chapter 3, the majority of my dependent variables are binomial and coded 1 if the event occurs, 0 if not. This is also the case for the analyses that examine four-year degree granting for-profits and non-degree granting for-profits, as they can only transition either up or down, respectively. Therefore, for the analyses of these two types, I continue to use regular logistic regression. Two-year degree-granting for-profits, however, could experience two different types of transition events: they could transition "up" to offering four-year degrees, or they could transition "down" to no longer

offering degree programs. In order to examine the differences between two-year for-profits that reported transitioning "up" or transitioning "down" with schools that did not have this type of transition during the study window, I use a multinomial logistic regression (MLR) model. This model is designed for use with a nominal dependent variable with several mutually exclusive categories that cannot be ranked in any meaningful way. Multinomial Logistic Regression is the most appropriate modeling strategy for this analysis due to the unordered multi-categorical nature of my dependent variable. Since the dependent variable has three categories it is only necessary to analyze two logits for the estimation of the model.⁸ In this case, "no transition" is the reference category, therefore creating the following two logits: Transition "up" versus No Transition and Transition "Down" versus No Transition. For ease of interpretation, I present the odds ratios for the model and provide comparative fit statistics for each stage of the model.

Results

Similar to the previous chapter, I present my results in three different tables that provide the effects of my independent variables on the odds of making a transition for each type of postsecondary for-profit institution. I begin with an examination of for-profit institutions that offer degrees at baccalaureate level. In hypothesis 5.1, I suggested that increases in the legitimacy as measured by density of four-year degree granting for-profits would lead to a decrease in the likelihood of a this type of for-profit transitioning down to offer two-year degrees. Model 1 of Table 5.2 does not support this hypothesis, but in Model 2, the addition of a binary variable that controls for the era (before and after the new FAFSA

⁸ In order to ensure that this model conformed to the assumption of independence from irrelevant alternatives, I ran a Small-Hsiao test and found no violation.

regulations) leads to both the density variable and its squared term becoming significant, suggesting a suppressor effect that I explore in detail below. Across Models 2-4, my results show that in the years following the FAFSA changes of 1992, four-year degree granting forprofits were about five times less likely to transition down to offering two year degrees than prior to the new regulations. In order to ensure that this finding was not a reflection of changes in the likelihood over time unrelated to the passage of these regulations, I ran a separate analysis (not shown) that included a simple yearly control for time, and found that measure to be a non-significant predictor of downward transitions by four-year schools. Additionally, this finding remains highly significant even when I control for other potential influences such as accreditation status and the density of community colleges in the state. Therefore, it appears that in the modern era, for-profits that offer four-year degrees are especially interested in maintaining their degree-granting status in order to access student aid funding.

As mentioned in the previous paragraph, controlling for the era also resulted in my density and density-squared terms being significant and in opposite directions, creating a Ushaped pattern that does not necessarily support hypothesis H5.1. This change in significance is probably due to these two variables having the highest correlation of any of my measures as a result of the almost exponential growth of four-year for-profits in the modern era (recall Figure 2.8). In order to investigate this further, I also ran this analysis with as interaction term between the era and density variables, then graphed the predicted probabilities. The slope of the pre-1993 line was significantly steeper than the post-1993 line, so I can conclude the increases in density increased the likelihood of a transition down by a four-year school to a greater extent prior to the new regulations than after.

| Degrees | | | | | | | |
|---|---------|-----------------|----|---------|-----|-------|------|
| Variables | Model 1 | Model 2 | | Model 3 | | Mod | el 4 |
| Variables of Interest | | | | | | | |
| National Density of 4-Year FPCUs | 1.78 | 5.62 | ** | 7.92 | ** | 8.29 | ** |
| National Density of 4-Year FPCUs Squared | 0.89 | 0.77 | ** | 0.73 | ** | 0.72 | ** |
| Era | | | | | | | |
| After New FAFSA Regulations (1993-2010) | | 0.23 | ** | 0.20 | ** | 0.20 | ** |
| School Characteristics | | | | | | | |
| School is Owned by Educational Corporation | | | | 2.16 | ** | 2.07 | * |
| Have Physical Library Facility | | | | 0.93 | | 0.94 | |
| Have Occupational Program | | | | 13.06 | *** | 12.85 | *** |
| Require High School GPA for Admission | | | | 0.82 | | 0.83 | |
| National Accreditation | | | | 0.69 | | 0.71 | |
| Regional Accreditation | | | | 0.23 | *** | 0.24 | *** |
| Community Influences | | | | | | | |
| Number of Community Colleges Per 1M State Residents | | | | | | 1.06 | |
| Percent of State Population in Urban Areas | | | | | | 0.99 | |
| | | | | | | | |
| Ν | 6801 | 680 | 1 | 6801 | | 6801 | |
| Negative Log Likelihood | -385.2 | -382.44 -326.41 | | -325.11 | | | |

Table 5.2 Odds of a Four-Year Degree-Granting For-Profit Transitioning "Down" to Offer Only Two-year Degrees

Notes: All variables except for the FAFSA Era dummy variable are lagged by one year p<.05 + p<.01 + p<.001

These results also show that as the density of four-year degree granting for-profits

increases, it in turn creates an increase in the likelihood of a downward transition to a certain point, then decreases the odds of this transition. While this is not what I hypothesized, it suggests that as the population of four-year FPCUs first began to increase, it created competition within this subset of the for-profit population that some schools responded to by dropping their four-year degree programs.⁹ However, once the population grew to a point that this form of for-profit schooling became legitimate, further increases in density decreased the likelihood that a four-year school would transition to offering only two-year degrees.

⁹ The usefulness of this strategy as a technique for increasing survival chances will be explored in Chapter 6.

Interestingly, however, I do not find the expected competitive relationship between four-year degree granting for-profits and community colleges. I hypothesized (H5.6) that as the number of community colleges increased, the likelihood of a transition from offering four-year degrees to offering two-year degrees should decrease, but the density of community colleges in the state has no effect on the odds of these schools making a downward transition.

I also found that in this analysis, hypothesis 5.8 was not supported. Instead of decreasing the likelihood of a downward transition, being owned by an educational corporation actually doubled the odds of a four-year school dropping their baccalaureate programs. Hypothesis 5.8 stemmed from the supposition that corporate ownership would result in increasing pressure from shareholders to maintain degree programs. This result suggests, however, that these corporate resources are potentially working in a different way: they may increase the ability of for-profits to make structural changes in an attempt to meet the demands of the organizational environment. Additionally, as I argued above, the administration of a corporate-owned institution must answer to the board of directors and to shareholders about success. These corporate schools, therefore, may also make drastic structural changes more quickly if the status quo is not meeting set profitability goals.

Finally, for four-year degree granting for-profits, only two school characteristics significantly influenced the likelihood of making a transition, but they were both strong predictors. First, my analysis shows that if a four-year FPCU has an occupational program as well as an academic program, they are about 13 times more likely to transition down than a school that does not offer occupational training. Having an occupational program may indicate that a four-year FPCU is less committed to their academic degrees or it may be the case that a

downward change in the degree status is a less drastic structural change if an occupational education option is already in place. Second, I found support for hypothesis 5.10 in this analysis, but only regional accreditation lowered the likelihood of a transition down by fouryear for-profits. As Kinser (2006) pointed out, almost every for-profit that offers degrees at the baccalaureate level has at least national accreditation, so the non-significance of that term is not surprising. Regional accreditation, however, is much more difficult to achieve, and therefore schools that do have this prestigious designation are probably highly motivated not to lose it through ending their four-year degree programs.

Like four-year degree granting for-profits, non-degree granting for-profits only have one option for transition- up, to offering two-year degrees. I therefore present the analysis of nondegree granting for-profits next in Table 5.3. Generally, I hypothesized that my measures would have the opposite effect on the odds of transitions up by these schools that they did on transitions down by four-year schools, including the effect of legitimacy as measured by density. In this analysis, I again find that my hypothesis (5.4) relating to affect density on transition was not supported in the data. Regardless of what other measures are included in the analysis, increases in the density of four-year degree granting FPCUs decreased the odds of a transition up by a non-degree granting school.¹⁰ It appears, therefore, that non-degree granting schools may be more apt to avoid competition with degree-granting for-profits, especially as they gain increasing levels of legitimacy, than they are to transition to the normative model.

¹⁰ As I explained in the previous chapter, if a squared term is significant but the non-squared term is not, the non-significant term can generally be dropped from the model, which I did in another regression analysis (not shown). As doing this did not change my substantive results, I again kept this term in the models for the sake of congruence.

| Degrees | | | | | | | | |
|---|---------|-----|---------|-----|---------|-----|----------|-----|
| Variables | Model 1 | | Model 2 | | Model 3 | | Model 4 | |
| Variables of Interest | | | | | | | | |
| National Density of 4-Year FPCUs | 1.04 | | 1.11 | | 0.86 | | 1.01 | |
| National Density of 4-Year FPCUs Squared | 0.97 | *** | 0.96 | *** | 0.97 | ** | 0.95 | *** |
| Era | | | | | | | | |
| After New FAFSA Regulations (1993-2010) | | | 0.94 | | 1.04 | | 1.09 | |
| School Characteristics | | | | | | | | |
| School is Owned by Educational Corporation | | | | | 5.96 | *** | 6.47 | *** |
| Have Physical Library Facility | | | | | 1.28 | *** | 1.27 | *** |
| Have Academic Program | | | | | 1.06 | *** | 1.06 | *** |
| Have Occupational Program | | | | | | | | |
| Require High School GPA for Admission | | | | | 1.61 | *** | 1.62 | *** |
| National Accreditation | | | | | 6.06 | *** | 6.08 | *** |
| Regional Accreditation | | | | | 1.83 | *** | 1.67 | *** |
| Community Influences | | | | | | | | |
| Number of Community Colleges Per 1M State Residents | | | | | | | 0.97 | *** |
| Percent of State Population in Urban Areas | | | | | | | 0.98 | *** |
| Ν | 729 | 929 | 729 | 929 | 72929 | | 29 72929 | |
| Negative Log Likelihood | -269 | 965 | -26 | 964 | -23617 | | -23332 | |
| Notes: All variables except for the FAFSA Era dummy | | | | | | | | |
| variable are lagged by one year | | | | | | | | |

Table 5.3 Odds of a Non-Degree Granting For-Profit Transitioning "Up" to Offer Two-year Degrees

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

Similarly, if community colleges are more widely available in the state, the odds of a non-degree granting school adding an associate's degree program are significantly less, which provides support for hypothesis 5.8. This finding further shows that non-degree granting schools are less likely to transition in the presence of competition from both four-year degree granting for-profits and community colleges. This competition effect does not extend to all traditional schools; in another regression I included the measure of traditional school density from the analysis in the previous chapter, and this did not have a significant effect. These competitive effects are similar to those shown in the last chapter and suggest that non-degree granting for-profits do compete with four-year degree granting for-profits for resources such as students. This means that FPCUs offering bachelor's degrees are still perceived as effectively providing vocational/certificate programs as well as academic ones.

While my measures of the density of four-year FPCUs and time are less important in these models, every institutional variable is highly significant. I find that non-degree granting schools that are owned by corporations are over six times more likely to begin offering associates degrees, which does provide support for hypothesis 5.8. While only about 10 percent of non-degree granting schools are owned by educational corporations, these are the institutions that are by far the most likely to attempt a more traditional higher education model, and this again may be due to external pressure from the corporation. My results also show that for non-degree granting schools, having at least one of program defined as "academic" also increases the odds of transitioning up to offer a two-year degree, which lends further support to the argument that having both types of programs in place makes the transition to a new degree-granting status easier.

Along with offering an academic program, the presence of other institutional characteristics that align with traditional colleges and universities also increase the odds of a non-degree granting school beginning to offer an associate's degree. Specifically, I include two measures that represent whether or not the school has traditional facilities available to students, and whether or not the admission policy requires information about past educational performance. As Table 5.2 shows, if the school has a physical (not only online) library available to students, they are 1.27 times more likely to transition up than if this is not the case; requiring a high school GPA report for admission similarly increases the odds of adding a two-year

degree.¹¹ Therefore, I conclude that non-degree granting institutions that already possess characteristics in alignment with the traditional form are more likely to make a degree status transition that moves them further toward that form.

In terms of my hypotheses regarding the effects of regulation, I find mixed results. The FAFSA era variable has no significant effect in this analysis, but the effects of accreditation status support with my hypothesis (5.10). I find that schools that have either a national or regional accreditation having a greater likelihood of an upward transition. This finding makes a lot of sense, especially in light of the lower prevalence of accreditation at this level of for-profits. Of the non-degree granting schools in the 2010 wave of the IPEDS survey, only about fifty percent are accredited by a national agency and less than four percent have a regional accreditation, and historically these numbers were even smaller. As a result, an accredited status could be interpreted as an indication of a well-established and successful non-degree granting institution, or, in light of the hesitation by many agencies to accredit for-profits, it could also indicate a school that is organized along a more traditional model. Either way, for non-degree granting for-profits, being accredited leads to increased odds of adding a degree program.

Thus far I have discussed the effects of my variables of interest on the two types of forprofits that could only transition in one direction- either up or down. In the next analysis, I use multinomial logistic regression to analyze two-year degree granting institutions, comparing the likelihood that they will transition in one direction or the other with experiencing no transition.

¹¹ The library variable is not significant in the more conservative complete case analysis, but requiring a GPA for admission remains a significant predictor. This is the main substantive difference between the two analyses.

As Table 5.4 shows, I find that across all four models, the effect of the density of four-year degree granting schools created the U-shaped pattern of legitimacy/competition, as both density-squared terms were significant in the two logits of the regression, but in opposite directions.

Specifically, as the legitimacy of four-year degree granting for-profits increases through density growth, the likelihood that a two-year for-profit will add a four-year degree also increases, and the likelihood of a transition down decreases. At a certain point in this density growth, however, competition leads to a reversal in this pattern and two-year degree granting schools become less likely to transition toward the four-year model and more likely to move away from it- although I note that the density squared is not significant in the transition down of the complete case analysis. Therefore, it does appear (in support of hypothesis 5.2) that increases in the cognitive legitimacy possessed by four-year schools does create an impetus for change toward that model in the two-year population, but only until density reaches a high enough level that concern with competition outweigh the perceived benefit of isomorphism to the norm. Conversely, I was incorrect in my proposal (H5.4) that increases in this density would encourage transitions down in general. There appears to instead be a competition effect where density has to be at a certain level before these schools begin to transition away from the fouryear model. In other words, competition has to be high to reach the point where bifurcation in the transitional patterns of this population occurs.

| Down to Not Onening Degrees | | | | | | | | |
|---|---------|-----|--------|-----|---------|-----|--------|-----|
| Variables | Model 1 | | | | Model 2 | | | |
| | Trans. | | Trans. | | Trans. | | Tra | ns. |
| | Up | | Down | | Up | | Do | wn |
| Variables of Interest | | | | | | | | |
| National Density of 4-Year FPCUs | 2.81 | *** | 0.25 | *** | 1.84 | *** | 0.41 | *** |
| National Density of 4-Year FPCUs Squared | 0.87 | *** | 1.15 | *** | 0.92 | *** | 1.08 | ** |
| Era | | | | | | | | |
| After New FAFSA Regulations (1993-2010) | | | | | 1.65 | *** | 0.7 | * |
| School Characteristics | | | | | | | | |
| School is Owned by Educational Corporation | | | | | | | | |
| Have Physical Library Facility | | | | | | | | |
| Have Occupational Program | | | | | | | | |
| Require High School GPA for Admission | | | | | | | | |
| National Accreditation | | | | | | | | |
| Regional Accreditation | | | | | | | | |
| Community Influences | | | | | | | | |
| Number of Community Colleges Per 1M State Residents | | | | | | | | |
| Percent of State Population in Urban Areas | | | | | | | | |
| - | | | | | | | | |
| Ν | 19866 | | 19866 | | 19866 | | 19866 | |
| Negative Log Likelihood | -15622 | | -15622 | | -15583 | | -15583 | |

Table 5.4: Odds of a Two Year-Degree Granting For-Profit Transitioning "Up" to Offer Two-year Degrees or "Down" to Not Offering Degrees

Note: All variables except for the FAFSA Era dummy variable are lagged by one year *p<.05 **p<.01 ***p<.001

| Table 5.4 Cont. | | | | | | | | |
|--|-----------|-----|----------------|---------|-----------|-----|------------|-----------|
| Variables | Model 3 | | | Model 4 | | | | |
| | Trans. Up | | Trans. Down | | Trans. Up | | Tra Dov | ns. vn |
| Variables of Interest | | | | | | | | |
| National Density of 4-Year FPCUs | 2.07 | *** | 0.43 | ** | 2.14 | *** | 0.42 | ** |
| National Density of 4-Year FPCUs Squared | 0.9 | *** | 1.07 | * | 0.9 | *** | 1.08 | * |
| Era | | | | | | | | |
| After New FAFSA Regulations (1993-2010) | 1.51 | *** | 0.83 | | 1.61 | *** | 0.8 | |
| School Characteristics | | | | | | | | |
| School is Owned by Educational Corporation | 1.2 | *** | 0.69 | ** | 1.21 | *** | 0.66 | ** |
| Have Physical Library Facility | 1.21 | *** | 0.45 | *** | 1.2 | *** | 0.46 | *** |
| Have Occupational Program | 1.14 | *** | 1.05 | | 1.5 | *** | 1.07 | |
| Require High School GPA for Admission | 0.73 | *** | 1.22 | | 0.76 | *** | 1.22 | |
| National Accreditation | 3.11 | *** | 1.38 | ** | 3.26 | *** | 1.35 | *** |
| Regional Accreditation | 1.11 | * | 0.78 | | 1.13 | ** | 0.8 | |
| Community Influences | | | | | | | | |
| Number of Community Colleges Per 1M State | | | | | | | | |
| Residents | | | | | 1.07 | *** | 1.11 | *** |
| Percent of State Population in Urban Areas | | | | | 0.99 | *** | 1.02 | *** |
| Ν | 19866 | | 19866 | | 19866 | | 19866 | |
| Negative Log Likelihood | -15436 | | -15435 | | -15281 | | -15281 | |

My hypothesized competition effects (H5.5 and H5.5.1) as related to the presence of community colleges were also supported in this analysis. As Table 5.4 shows in Model 4, increases in the number of community colleges per the state population leads to a rise in the odds that a two-year for-profit will transform either up or down away from the two-year model. Substituting a measure of traditional colleges in general does not have significant results, however, so I conclude that for-profit schools are responding to competition from both other for-profits and community colleges. This is similar to my findings for non-degree granting for-profit schools on this measure. The effect of corporate ownership also varies somewhat from my previous findings in that it increases the likelihood of a transition up and decreases it for a transition down.

I also find that after the 1992 FAFSA regulations, two-year schools are more likely to transition up to the four-year model. This, in conjunction with my finding on four-year schools, implies that isomorphism toward the norm is especially strong in schools that already offer degrees, possibly because they are more highly reliant on FAFSA funding than non-degree granting schools that may not have been founded on a model that requires FAFSA funds to function and meet the mission of profitability as is the case for many current degree-granting for-profits. I also find, again in line with my previous models, that possessing either type of accreditation increases the likelihood that a two-year school will transition up. Interestingly, however, my results show that for two-year schools, being accredited at the national level also increases the likelihood of a transition down (regional accreditation has no significant effect). I examined the correlation of this variable with other measures and potential interactions, with no result. Understanding why having a national accreditation can increase the likelihood of a

two-year school transitioning both up and down will require further research, but one possibility is that accreditation encourages movement toward a norm – either the current one or the historical model. This aligns with the propositions of neo-institutional theory, and in total I find support for my hypotheses regarding the effects of regulation on transitions in this population.

Finally, I want to point out that my school characteristic variables produce mixed results in relation to the findings of my previous transformation analyses. Similar to the models above, having a physical library facility increases the likelihood of a transition to a four-year model and decreases the likelihood of a transition away. This is not the case, however, for the GPA measure, which actually lowers the likelihood of a transition up to offering four-year degrees. In addition, having an occupational program also increases the likelihood of a transition up and has no effect on the odds of a transition down. Therefore, I find some support for my suggestion that having a traditional structure already in place supports the move toward a traditional degree model, but not across all my measures.

Main Implications of These Findings

Theoretical Conclusions and Implications

In the introductory chapter to this dissertation, I identified one of my motivations for conducting this research to be the need for more work on the causes of organizational transformation. As I point out, organizations that undergo large structural transformation are often hard to track over time because they are likely to be classified differently before and after the change. The IPEDS data avoids this problem since it follows each institution with a unique identifier, and that, in conjunction with the fact that for-profit higher education is currently in

the midst of a great deal of change at the population level means that this study provides a good opportunity to add to this area of the organizational literature.

Taking the results presented in this chapter together, I can say that in this population, both organizational characteristics and the environment influence the likelihood that an institution will transform. Guided by neo-institutional theory, I suggested that for-profit schools would change their structure to become isomorphic with the legitimate model. In recent years, the normative form of for-profit education has become the degree-granting forprofit postsecondary school, specifically schools that offer four-year degrees. These baccalaureate level for-profits have experienced unprecedented levels of growth and been widely discussed in recent years (Jacobs 2011), and as a result they have become the form of for-profit education with the most cognitive legitimacy and perceived success. My data shows that as the legitimacy of this type of school has grown, it has resulted in isomorphism in the forprofit population, but other factors also influence these transformations.

In relation to the effects of legitimacy as measured through density, I proposed that increases the legitimacy of four-year schools would affect the transformational behavior of each type of for-profit in different ways. I found some evidence that increases in legitimacy led to isomorphic processes, especially for two-year degree granting schools, which were significantly more likely to add four-year degree granting programs as the density of schools offering baccalaureate programs increased, and were less likely to transition down to not offering degrees (to the point of high competition, discussed in detail below). In addition, at high levels of national density, an existing four-year degree granting for profit was less likely to transition to offering only two-year degrees. This evidence, taken together, suggests that as an

organizational form achieves higher levels of legitimacy it decreases the odds of that type of organization, as well as other similar types of organizations, restructuring in such a way as to move away from the perceived norm.

At the same time, I also found that the competition created by increasing numbers of four-year degree granting for-profits also contributed to the likelihood of a transition by each type of for-profit institution. As density began to rise (to a certain point), four-year granting for-profits were more likely to transition down to enter a different niche, and this population growth of four-year schools also led non-degree granting for-profits to be less likely to add a degree program. The results of my analysis on two-year degree granting schools also showed competition effects, as described in the previous section. The U-shaped curves of the density effects showed that after a certain level of density is reached in the number of four-year FPCUs, two-year schools become less likely to add four-year degrees. At the same time, density increases lead to two-year schools being more likely to transition away from offering degree programs altogether, at least until a high level of cognitive legitimacy is reached. This finding demonstrates that the forces of legitimacy and competition act on two-year degree granting for-profits in the current marketplace to create a bifurcation in the behavior of these schools. In essence, these organizations respond to potential resource scarcity by transforming but the "correct" change to make is unclear. Thus some schools transform to the current norm of the four-year FPCU and others to the historical norm of the non-degree granting for-profit school.

The effects of competition extend to the wider organizational population of higher education as well. Increases in the number of community colleges per state population lead to higher odds of a two-year degree granting school transitioning either up or down as well, and

non-degree granting schools are less likely to add degree programs under these conditions. The presence of traditional colleges and universities in general has no significant effect, however, so it appears that for-profit institutions transform in response to competition from other organizations that are at least perceived as a direct competitive threat for attracting students. This could be an issue of the timing of my study, as the population of four-year degree granting for-profits is still relatively young in terms of organizational lifespans. In the last chapter I did find that the density of TCUs had a significant influence on the founding rates of these schools. I suggest therefore that new for-profit schools might see TCUs as a competitive threat, but the majority of schools in my dataset were operating at year 1. These older schools are more likely to perceive their main competition to be both the new population of four-year degree granting for-profits and community colleges, which have more closely related programmatic offerings.

In general, institutions of higher education have been known to change slowly, but this is clearly not the case for for-profit institutions. Instead, my work shows that for-profits initiated changes to their degree granting status in response to conditions in the organizational environment, including competition and the increasing legitimacy of the four-year form. In the last couple of decades, as for-profits offering bachelor's degrees achieved a high level of growth, decision makers at for-profit schools likely attributed this positive organizational performance at least in part to the innovation of offering degrees at that level. As a result, this model gained legitimacy (Fligstein 1991) and was increasingly adopted or approximated. According to Stearns and Allen (1996), however, firms adopt an innovative template simply because a group of organizations is successful, and not because they have any unequivocal

evidence that it is the most effective or efficient form. I therefore examine the actual effects of these transformations on organizational survival in the next chapter.

Practical Conclusions and Implications

This investigation into the transformations of postsecondary for-profit institutions demonstrated that these schools are changing their degree granting status at a much higher rate than occurs in the TCU population. As a result of the introduction and success of the fouryear degree granting for-profit school, the established populations of for-profits have attempted to adapt to increase their survival chances.

Along with the effects of density described above, I also find that organizational transformation in for-profit higher education is influenced strongly by coercive pressure from regulatory organizations. In all levels of for-profits, already being accredited by an agency recognized by the U.S. Department of Education increases the likelihood of transforming up and decreases the likelihood of transforming down. Additionally, two-year schools are more likely to transition up and four-year schools are less likely to transition down in the Modern era, which was ushered in by the Title IV financial aid regulations of 1992. Many of the requirements for a school to be eligible for FAFSA are written in a way that benefits institutions that follow a more traditional model of higher education, and thus the growth in four-year degree granting for-profits has been in part a response to these changes in financial aid system.

This move toward taking on traditional models may be especially prominent in the corporate for-profit system. Corporate-run for-profits are more likely to transition in their degree granting status than privately held for-profits, with one exception – two-year degree granting corporate schools are less likely to transition to no longer offering degrees. The overall

pattern of increased rates of transition may be the case because corporate-run for-profits, especially large chain schools, may have additional resources that are not available to other institutions. These resources could be financial, but they could also be structural; for example, a school that is part of a chain that already offers bachelor's degrees at other locations could import a curriculum to add that degree level, precluding the need to design the program from scratch. At the same time, the fact that two-year degree granting corporate schools are less likely to transition down could be reflective of the possibility that the owners/administrators of corporate schools are especially invested in the academic model. They may be willing to discontinue bachelor's degree programs if associates degrees are still being offered, but ending all degree-granting programs would be considered unacceptable.

Finally, if for-profits have already moved in the direction of the traditional model, it will likely facilitate additional similar reforms. Having structures in place that are associated with the normative form generally increase the likelihood of transforming toward that that form, and decrease the likelihood of transforming away from it. Specifically, for both two-year and non-degree granting for-profits, the presence of a physical library, more stringent admission standards, or (for non-degree granting schools) an academic program all significantly increased the odds that the institution would add a bachelors or associates degree, respectively. Additionally, I found that if a school reported having both academic and occupational education programs, they were more likely to transform, especially at the extremes: four-year programs down and two-year programs up. It is possible that being a "hybrid school" is an indication of lower investment in the degree program that a school offers, or it could be that some forprofits are adding academic/occupational programs in preparation for a planned

transformation. Either way, this demonstrates that factors within the organization are also highly important to the transformation process.

If for-profits have been modifying their form toward traditional models to meet current accreditation and FAFSA requirements, it is highly probable that this trend will continue or accelerate under new stricter regulations. In fact, a number of the largest for-profit schools in the nation are already working to achieve markers of traditional higher education that would make distinguishing them from non-profit schools increasingly difficult. For example, Grand Canyon University, a for-profit college operating out of Phoenix, is attempting to enter its teams into a Division I athletic conference and it supports and funds a research agenda (Kingkade 2012). The long term outcomes of this strategy for for-profits is unknown; adopting a traditional form may increase survival rates or overstress the resources of the school and lead to failure. Until this pattern becomes clear, however, we will see for-profits continuing to try to "fade into" the traditional system in order to avoid sanctions and penalties.

Conclusion

In summary, I find that postsecondary for-profit schools are making large transformations in response to changes in the organizational environment, and that all levels of for-profit schools are undertaking these changes in degree-granting status. My results show support for the prepositions of institutional theory, in that density growth in the new normative form of for-profit schooling increases the odds of mimetic isomorphism toward that model, and regulation from outside institutions also leads schools to adopt the normative model. At the same time, however, a number of other factors influence the odds and direction of a transformation, such as competition with both community colleges and other for-profit schools,

and the characteristics of the organization itself. It is in these organizational characteristic effects that I see the most interesting questions for future research; I find especially interesting the query I propose above about how outside influences such as shareholder demands can lead to institutional restructuring. Making a transformation such as a change in degree status, however, does not ensure success or survival, and I examine the effectiveness of these transformations in the next chapter.

CHAPTER 6

Leaving the Marketplace: An Analysis of the Causes of Closure in Post-Secondary For-Profit Institutions

Along with understanding the environmental and institutional characteristics that lead to organizational evolution, it is also critical to examine whether or not these transformations in fact increase organizational success or failure. Therefore, in this final portion of this dissertation I examine the effect of the changes in degree granting status outlined above on the likelihood that a for-profit institution of higher education will close. Using institutional and population ecology theories to guide an analysis of the entry, transformation, and success/failure of institutions of higher education is constant with the literature (see, for example, Brint and Karabel 1989; Tolbert 1985). To my knowledge, however, these theories have not yet been used to explore the question of how organizational and environmental factors may lead to success or failure within the for-profit higher educational system in particular. In conjunction with the two other analyses offered above, this study of the mortality of postgraduate for-profit schools will further develop the story of how the entrance of a new form of for-profit school has changed the landscape of for-profit higher education.

Examining the varied factors that could lead a for-profit to close is important because in all likelihood, students will be highly affected by the closure of a school. In recent years, there have been numerous reports of schools closing without warning, leaving students with lost tuition money and little recourse (Wieder 2012). It is possible that the closing of some for-

profit schools may in fact be beneficial if the school is not providing a quality educational product, but looking at individual student outcomes is outside of the scope of this dissertation. I argue, however, that identifying the rates and reasons for closure is a critical first step in any discussion of the current state of the organizational population of for-profit institutions.

Similar to Chapter 4, in this portion of my dissertation I again use both population ecology and neo-institutional theory to guide my research. To avoid repetition, I will not provide an in-depth discussion of the basic tenants of these theories because those descriptions can be found in the previous two chapters. I will, however, highlight and comment upon the propositions of these two theories as they guide this analysis of mortality. First, I turn to a discussion of neo-institutional theory as it relates to the mortality of postsecondary for-profit institutions.

Neo-Institutional Theory

As I discussed in depth in Chapter 5, according to neo-institutional theory, a main goal of any institution is to establish legitimacy within the organizational population and within wider society (DiMaggio and Powell 1983). In order to achieve this legitimacy, organizations may respond to regulatory pressures and/or make structural changes in an attempt to achieve normative isomorphism with the organizational form that is considered ideal. While neoinstitutional theory was originally associated with path dependence and inertia (Chizema 2006), recent theoretical developments suggest that under certain circumstances, organizational change is likely to occur. In fact, opposed to the assumptions inherent in population ecology theory (which I will comment upon below), some neo-institutional research has demonstrated that in certain circumstances, change may in fact increase the chance of survival (Haveman

1992). In her research on savings and loan associations, Haveman (1992) finds that organizational change can in fact be beneficial if it occurs in response to dramatic environmental change and builds on established competencies.

I suggest that both of these circumstances are present in the case of the current postgraduate for-profit institutional population. As I discuss in my outline of the history of forprofit higher education in the U.S., this type of school has been around since colonial times, but the last two decades have seen a drastic change to this organizational environment with the introduction of the quickly growing population of four-year degree granting FPCUs. While this environmental change may lead schools that do not fit this model to transform to better align with this norm, for some of these schools, the changes that I explore here should not be considered a brand new competency. Transitioning "up" to offering a four-year degree is not a radical change for schools that were already offering two-year degrees. I expect therefore that this type of transformation will actually increase the survival chances of for-profits that make this change because they will be considered more legitimate as they move toward the institutional norm. I hypothesize:

H6.1: A transition "up" to offering a four-year degree by a two-year degree granting school will decrease the likelihood of closure

On the other hand, transitioning "up" from not offering degrees to offering two-year degrees would be a more drastic change for non-degree granting for-profits as there are a number of structural changes that would have to occur. For example, it is probable that a school that does not offer degrees would lack related curricula to build upon and may not currently have on instructors on staff that are qualified to teach the new courses or assist in the development of the needed curricula. Despite the fact that making this transition would move these schools toward the four-year degree granting institutional norm, I suggest that the large costs of making this type of transition outweigh the benefits and thus increase the odds of closure. I hypothesize:

H6.2: A transition "up" to offering a two-year degree by a non-degree granting for-profit school will increase the likelihood of closure

Conversely, a transition "down" to offering two-year degrees by a four-year degree granting school or to no longer offering degrees by a school that previously offered two-year degrees is a change that moves a for-profit institution of higher education further away from the institutionalized norm of offering four-year degrees. While this change might not be as costly, it also lacks the benefits inherent in offering more degree programs and generally moving toward the norm. Therefore, I would expect that making this type of transition should increase the likelihood of an organization closing and hypothesize:

H6.3: A transition "down" by either a four-year degree granting for-profit to offering only two-year degrees or by a two-year degree granting for-profit to no longer offering degrees will increase the likelihood of closure

While I am most interested in the effects of these transitions on closure, I also explore other potential causes that can lead a postgraduate for-profit institution to fail. Along with looking at the effects of transitions on closure rates, I also examine the effect of normative legitimacy as measured by accreditation status on the mortality of these three types of schools. Previous research has found that certification by outside bodies can improve the survival chances of organizations, especially when uncertainty about the organizations exists (Ruef and Scott 1998), and I expect that this will also extend to for-profit institutions of higher education. In higher education, there are numerous accrediting agencies with different goals and levels of prestige associated with their certification. As discussed in the previous chapter, organizations that offer institutional accreditation can be categorized into two geographical distinctions: regional and national, with regional accreditation being more prestigious and the type held by most traditional colleges and universities. Accreditation status is especially important to FPCUs as it is required for eligibility for federal financial aid, and no schools lacking a regional accreditation have ever been included in the U.S. News and World Report guide, although that is expected to change in 2012 (Morse and Flanigan 2011). I expect that being accredited in general will increase survival changes, and that having a more traditional regional accreditation will be especially beneficial. I hypothesize:

- H6.4: Having an accreditation will decrease the likelihood of closure in for-profit institutions of higher education
- H6.5: Regional accreditation will decrease the likelihood of closure in for-profit institutions of higher education to a greater extent than other accreditation types

Population Ecology

I now turn to population ecology explanations of the causes of mortality in for-profit schools. Ecological theory (Hannan and Freeman 1977b; Hannan and Freeman 1984) suggests that organizations are subject to strong inertial pressures and thus organizational change is expected to be infrequent and detrimental to survival chances (Hannan and Freeman 1989; Stinchcombe 1965). The idea that change is difficult and potentially harmful to organizations has been central to population ecology theory, and therefore, population ecology would suggest that making any transformation should decrease the likelihood that an organization will survive. In line with this, I propose a competing hypothesis regarding the effects of organizational transformation to the ones guided by neo-institutional theory from the previous section:

H6.6: A degree-level transition of any type by a for-profit institution of higher education will increase the likelihood of closure.

Along with this hypothesis on transformations, I also use population ecology theory to hypothesize about some other potential causes of closure. Along with providing theoretical explanations of founding patterns, much research in population ecology has focused on organizational change through the process of some organizations leaving the population (Hannan 1989). These explanations of organizational mortality utilize the concepts of densitydependent legitimacy and competition that I developed in depth in Chapter 4. In brief review, increases in legitimacy are expected to occur as the density of an organizational form rises. This will in turn lead to more foundings, further supporting the view of this organizational type as the "correct" form and increasing the cognitive legitimacy. As density and thus competition increases to the point of the carrying capacity, however, the founding rate is expected to subsequently drop, leading to the inverted-U shaped curve of foundings described above. Population ecology suggests that these same forces effect mortality rates, but in the opposing direction. In other words, in terms of the mortality rate, I expect that legitimacy and competition will create an opposite pattern of closures and resemble a (non-inverted) Ushaped curve. The left side of this U-shaped curve represents the forces of legitimacy, which increases as density rises. As an organizational form becomes more legitimate in the environment, the likelihood of mortality will decrease for these institutions. For four-year degree granting for-profits, this means that as the density of this form increases, closure will become less likely.¹² I hypothesize:

¹² This process could operate at the national and state levels, but my foundings analysis showed the effects of legitimacy and competition operating only at the national level for four-year

H6.7: As the national legitimacy of four-year degree granting for-profits increases (measured through density), the closure rates of four-year degree granting for-profits will decrease.

As the mortality rate slows, density and legitimacy will continue to rise until the carrying

capacity of the environment is reached. At this point, the competition for resources will be

intense (Aldrich and Reuf 2006; Hannan and Freeman 1977a), resulting in an increase in

mortality at this point. I suggest:

H6.8: As national competition in four-year degree granting for-profits increases (measured through density), the closure rates of four-year degree granting for-profits will increase.

Again following the same theoretical constructs as in Chapter 4, I also expect that

legitimacy transfer will occur for two-year degree granting for-profit schools. I propose that

this will be the case because FPCUs that offer degrees will be cognitively related (as I found in

the foundings analysis). This means that as legitimacy measured by density increases for four-

year for-profits, we should also see a decrease in closure rates for two-year degree granting for-

profits. I hypothesize:

H6.9: As the national legitimacy of four-year degree granting for-profits increases (measured through density), the closure rates of two-year degree granting for-profits will decrease

For non-degree granting for-profits, I do not expect this legitimacy transfer to occur because

these schools will not be cognitively related to four-year degree granting for-profits in the same

way. Therefore, the density of four-year for-profits should not decrease mortality in these

degree granting for-profit schools. To examine if this same pattern holds for closures, I ran analyses for each type of for-profit institution with density measured at the state level. In these analyses, the state-level density of four-year degree granting for-profits was did not have a significant effect on the likelihood of closure for any for-profit schools. Therefore, I exclude that measure from these analyses.
schools. In my previous analyses, however, I found that non-degree granting and four-year degree granting for-profits appear to compete for resources such as students, and I expect this competition to also increase the likelihood of mortality in non-degree granting for-profits as the density of four-year schools rises. I hypothesize:

H6.10: As competition increases (measured through density of four-year degree granting FPCUs), the closure rates of non-degree granting for-profits will increase

Along with the areas of interest described above, research in the ecology of organizations has also addressed the question of the ways that age and size influence rates of organizational failure. A number of decades ago, Stinchcombe (1965) proposed what he termed the *liability of newness*, which he claimed explained the high failure rate of young organizations. According to him, the liability of newness stems from issues such as lack of resources and networks and the need to develop a number of new roles and relationships. It is possible that for-profit institutions of higher education will be more likely to close when they are young, especially since this type of school already faces potential cognitive legitimacy issues that could make developing the necessary relationships and promoting student enrollment more difficult. I expect this to be true for all for-profit schools, regardless of degree-granting status, and thus I hypothesize:

H6.11: As the age of a school increases, the likelihood of closure will decrease *Plan of the Analysis*

In this section I present the following results in three separate analyses for four-year degree, two-year degree, and non-degree granting for-profits. Following my general analytical plan of the dissertation, each analysis included in this chapter is conducted using event history methodology with a dichotomous dependent variable (closed/not closed). Each table presented

in this chapter includes nine nested models that analyze the effects of a number of independent variables on the likelihood that a for-profit school at each level will close. In the final model of each table (model 8), I include a variable that accounts for the age of the forprofit school at time of closure. Since my data is censored at year 1987 it is not possible to know the age of schools that are present in the dataset at year 1, and based upon descriptions of the history of for-profits, the age of these schools is likely to vary widely. For example, Strayer University (previously known as Strayer Business College) opened in 1892, but other for-profit schools came and went quickly in the early 1980s (Coulson 1999). All of these schools, however, would appear similar in terms of age if they remained in the dataset. As a result, for this model only, I drop all schools that reported serving students in the 1987 survey year, and thus the last model of each table only includes institutions that opened in 1988 or beyond. While this is not ideal, it does provide a measure of how guickly age becomes a protective factor for for-profit schools if it does in fact lower the likelihood of closure. Making this change to the data also creates a number of changes in the findings of other variables, so I will discuss this model separately after the rest of the regression results for each type of school. I turn now to my findings.

Results

In Table 6.1 (below), I begin with an examination of four-year degree granting for-profit schools. As described above, my main variable of interest in these analyses is the effect that making a transition has on the likelihood that a for-profit institution will subsequently close. In this analysis, each school is defined by its degree-granting status prior to the transition. As discussed in previous chapters, all schools included in the dataset make only one transition

during the study window (in the case, from a four-year degree offering to only two-year degree offerings). Since four-year degree granting for-profits can only make a transition "down," I turn to hypothesis 6.3, which is my general hypothesis guided by institutional theory on the effects of making a downward transition. As the table shows, for these schools, my hypothesis regarding the effects of a downward transition on the odds of closure was not supported. In fact, across all models, transitioning "down" significantly decreased the likelihood that a school would later close. While this was not what I expected, this finding, in conjunction with the findings regarding transitions by other levels of schools that I discuss below, may suggest that movement toward a different norm is protective against closure. This possibility will be discussed in greater detail later in this chapter. This result also does not support the hypothesis regarding transitions that I developed using population ecology theory (H6.6). In this case, making a change does not automatically increase closure; instead, it increases the likelihood of organizational survival.

I also found that for four-year schools, the other hypotheses guided by population ecology theory and related to the effects of density on mortality were not supported. In Model 2, with only the transition and density variables included in the analysis, it appears that density increases the likelihood of closure by over two times, but as I proceed with stepping in other explanatory variables, this finding loses significance. It is possible that this is the case because this segment of the population is still too small and/or young for enough time to have passed for large numbers of closures to occur. In other words, we know that there have been few closures at this point which is likely because of the newness of the population, and as a result, the forces of legitimacy and competition are not yet strongly influencing the likelihood of

failure. It would be worthwhile to replicate this analysis in a few years to see if these density dependent theories do have explanatory power for this population as it ages.

In Model 3 of Table 6.1, I next included the era variable from the previous two chapters, and found that after the new FAFSA regulations were put into place in 1993, four-year degree granting for-profits were over three times more likely to close. This finding remains significant, although with lower odds, through Model 7. It does appear that, at least for degree-granting for-profits, the institution of stronger FAFSA regulations in the early 1990s led to a significant increase in the likelihood that a FPCU would be forced to shut its doors. This result suggests that regulation influences the likelihood of closure for these schools. I next look at the effects of regulation through accreditation in the analysis.

Models 6 and 7 in table 6.1 provide different measures of the effect of accreditation on closure. In my analysis of transformations in the previous chapter, I found that having regional/national accreditation status did influence the likelihood that a for-profit school would undergo a transformation. In this chapter, I hypothesized that having any accreditation would decrease the likelihood of closure for all schools, and that having achieved regional accreditation status would create the largest decrease in the odds. In order to make these comparisons, I created a set of dummy variables for accreditation status. These included: 1) national accreditation only (no regional accreditation), 2) no accreditation, and 3) regional accreditation status (the left-out category in these models).

| | Mode | 1 | | | | | | | | | | | | | 7 | | |
|--|-------|---|---------|----|---------|----------|--------------|--------|--------------|-----|---------|-----|--------------|-----|------------|-----|--|
| Variables | 1 | | Model 2 | | Model 3 | | Model 4 | | Model 5 | | Model 6 | | Model 7 | | Model 8 | | |
| Variables of Interest | | | | | | | | | | | | | | | | | |
| Transition: Down | 0.57 | * | 0.49 | ** | 0.49 | ** | 0.55 | * | 0.57 | * | 0.56 | * | 0.56 | * | 0.87 | ** | |
| National Density of 4-Year FPCUs | | | 2.29 | * | 1.43 | | 2 | | 1.23 | | 1.18 | | 1.18 | | 1.08 | | |
| National Density of 4-Year FPCUs Squared | | | 0.92 | | 0.97 | | 0.94 | | 0.97 | | 0.99 | | 0.99 | | 0.27 | | |
| Age | | | | | | | | | | | | | | | 0.53 | ** | |
| Timing | | | | | | | | | | | | | | | | | |
| After New FAFSA Regulations (1993-2010) | | | | | 3.29 | * | 1.52 | * | 1.74 | * | 1.63 | * | 1.63 | * | 2.33 | | |
| School Characteristics | | | | | | | | | | | | | | | | | |
| School is Owned by Educational Corporation | | | | | | | 1.23 | | 1.15 | | 0.86 | | 0.86 | | 0.16 | ** | |
| Have Occupational Program | | | | | | | 0.75 | *** | 0.75 | *** | 0.77 | *** | 0.77 | *** | 0.14 | *** | |
| Accreditation Status | | | | | | | | | | | | | | | | | |
| National Accreditation Only | | | | | | | | | | | | | 1.33 | ** | | | |
| No Accreditation | | | | | | | | | | | 2.34 | *** | 5.89 | ** | | | |
| Community Influences | | | | | | | | | | | | | | | | | |
| Number of Community Colleges Per 1M State | | | | | | | | | | | | | | | | | |
| Residents | | | | | | | | | 0.94 | | 0.93 | | 0.93 | | 0.73 | | |
| Average Community College Tuition and | | | | | | | | | | | | | | | | | |
| Fees | | | | | | | | | 1.05 | *** | 1.03 | *** | 1.03 | *** | 1.06 | ** | |
| XY. | | ~ | | | | | 57 00 | | 57 00 | | 5700 | | 57 00 | | 2000 | | |
| | 5798 | 5 | 579 | 98 | 579 | 98 | 5798 | | 5/98 | | 5/98 | | 5798 | | 3890 | | |
| Negative Log Likelihood | -449. | 8 | -445.1 | | -443 | -443.9 - | | -434.3 | | 9.5 | -40 | 0.2 | -39 | 0.6 | -255.5 | | |

Table 6.1: Odds of a Four-year Degree Granting FPCU Closing

Notes: All variables except for the FAFSA Era dummy variable are lagged by one year

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

In the first accreditation model, I test hypothesis 6.4 by only including the dummy variable coded for whether or not a school has any type of accreditation. I find that for fouryear degree granting FPCUs, having any accreditation (national or regional) significantly reduced the likelihood that an institution would fail by over two times (see Model 6 of Table 6.1). My analysis also shows support for hypothesis 6.5, as accredited schools with only a national accreditation status were significantly more likely to close than four-year FPCUs with regional accreditation (see Model 7). Therefore, it appears that having regional accreditation status has the largest protective effect against failure of all the accreditation types for for-profits that offer four-year degrees, but having an accreditation at the national but not regional level still provides increased odds of survival over not being accredited. In theoretical terms, my results show that having legitimacy as indicated by the approval of regulatory bodies decreases the likelihood of closure.

I would also like to mention my findings on a couple of school and community measures that were significant predictors of the likelihood of closure in my analyses. For four-year degree granting for-profits, having an occupational program decreases the likelihood of closure across all models. This provides further support for the idea that being a "hybrid" organization (offering both academic and occupational/vocational programs) improves a school's survival chances. This could potentially be the case because these schools can attract a more diverse body of students. Additionally, I find that an increase in the average community college tuition and fees slightly increase the likelihood of closure in four-year degree granting for-profits. As I discuss in the previous chapter, FPCUs are generally not a lower cost alternative to public colleges/universities, and this finding may have more to do with the level of support provided

to higher education in the state. In other words, less investment by the state means less funding going to community colleges and FPCUs, increasing tuition costs and the likelihood of closure.

In the final model (8) of this portion of my analysis, I include the age variable that I described at the beginning of the results section. As I mentioned before, due to data limitations, this analysis includes only schools that opened in years two and beyond to ensure that my age measure was accurate. Using this smaller dataset, my analysis shows that each year increase in the age of a school lowers the odds of closure by approximately half. This supports my hypothesis 6.11, and demonstrates that at least for four-year degree granting schools that have opened after 1987, age is a protective factor as suggested by Stinchcombe (1965). In the case of four-year FPCUs, which are generally young population of for-profits, this means that if schools are able to establish themselves quickly, they can gain enough individual cognitive legitimacy and/or resources to avoid a quick closure.

I also found in this analysis that when age is controlled for, being owned by a publically held educational corporation strongly decreases the likelihood of closure for four-year FPCUs, even though the effects of corporate ownership were non-significant for the population of fouryear degree granting for-profits as a whole. In order to explore this finding further, I ran an additional two analyses (not shown). In the first, I included an interaction term between age and corporate status to see if corporate status influenced the effect of age on closure, but this was not significant. I then ran an analysis where I no longer controlled for age, but kept the other independent variables from Model 8 in the analysis and continued to use the restricted dataset (schools that opened post-1987). In this regression, the coefficient for corporate was

.19 and significant at the .01 level, very close to my results in Model 8. Therefore, I conclude that for four-year degree granting for-profits that have opened in the last two and a half decades or so, being run by a corporate organization decreases the likelihood of closure, but corporate ownership does not protect schools that opened prior to 1988. It is possible that in the modern era of for-profit education, shareholder educational corporations have improved the practices that increase the survival chances of a for-profit that offers four-year degrees and above. Many educational management corporations also opened post-1987, so it could also be the case that "new" educational corporations are better able to protect their schools against closure. I consider looking further into this finding an important area for future research, especially since corporate chains of for-profits offering bachelor's degrees and graduate degrees has been the focus of much current scrutiny. Conceptualizing how these corporations encourage survival could bring further clarity to our understanding of the practices and potential benefits/problems inherent in educational management corporations.

My findings for four-year degree granting for-profits show that there are a number of potential factors that can influence the likelihood of survival for four-year degree-granting forprofits. The most unexpected finding (which runs contrary to the assumptions of both neoinstitutional and population ecology theories is that transitioning away from offering a fouryear degree decreases the odds of closure. I expected that four-year degree granting schools would have the most cognitive legitimacy and thus would be the normative model that would then protect against closure. I find instead that while this form of for-profit higher education may be the one that has the most public attention currently and is gathering cognitive legitimacy as shown by my results in the previous chapters, it may also face challenges that are

better met by schools that align with the traditional for-profit model. In order to examine this possibility further, I next conduct analyses of the factors that influence the closure of two-year and non-degree granting for-profits.

In Table 6.2, I include two transition variables because two-year degree granting forprofits can transition up to offering four-year degrees or transition down to not offering any academic degrees (or not make a transition). In Model 1 of this table, it appears that for twoyear degree granting schools, making any transition increases the likelihood of closure. When I control for any other factors in the regression, however, the effect of transitioning up to offering four-year degrees is no longer significant. Therefore, I do not find support for hypothesis 6.1, and conclude that moving to having at least a bachelors degree program does not in fact reduce the likelihood that a for-profit institution will close. At the same time, I do find support for hypothesis 6.3: if an associate's degree granting school transitions to no longer offer a degree program, it is over three times as likely to close across all models. Thus there is some support for the neo-institutional idea that it is not the transition itself, but the kind of transition that leads to a change in the likelihood of closure. As I do not find that making any transition increases the likelihood of closure, I again do not find support for the hypothesis regarding change based upon population ecology (H6.6).

Similar to the previous analysis, I also do not find that the density of four-year degree granting for-profits has an effect on the closure of institutions that only offer two-year degrees, again in contrast to the suggestions of population ecology. Once I control for the era (before/after the FAFSA regulations) in Model 3 of Table 6.2, both density terms lose significance. These FAFSA regulations, however, have an extremely strong effect on the

outcomes for two-year degree granting for-profits. In Models 3 through 7, regardless of the other variables included in the model, the likelihood that this type of school will fail is between seven and nine times higher after the regulations were instituted. Therefore, I find that for all degree-granting postsecondary for-profits, the stricter FAFSA regulations instituted in 1992 led to increased odds of closure, but the effect of these laws was particularly strong in the case of schools that only offered two-year degrees.

In addition to the FAFSA regulations, I also look at the effect that accreditation status has on the odds of closure. Like the four-year schools, not having any accreditation increases the likelihood that a two-year degree granting FPCU will close. In addition, if one of these institutions is accredited only at the national level, it is over two times as likely to close versus having a regional accreditation. This demonstrates that for degree-granting schools, accreditation is of great importance to survival chances, and a more prestigious accreditation is an indication of an even lower chance of failure. I would like to note that my data does not allow me to show the reason for these differences in closure rates; it could be that the accreditation status alone provides the school with added legitimacy, or it may be the case that schools with better curriculums, financial resources, etc., are more likely to achieve accreditation and less likely to close for many of these reasons. Either way, this suggests that accreditation does convey legitimacy and in turn leads to improved survival chances.

Earlier in this results section, I discussed the fact that being owned by an educational corporation did not influence the odds of closure in four-year degree granting institutions, except for those founded recently. For two-year schools, I find the opposite pattern. In each model, being a corporate-run FPCU decreased the odds by over half, except when my data is

limited to two-year schools that opened after 1987. For those institutions, corporate ownership has no significant effect on the likelihood of closure. Historically, corporate ownership of for-profits that offered less than four-year degrees was uncommon, as discussed in Chapter 2. Having the resources provided by this type of ownership, then, may have strongly increased the chances for a two-year degree granting school, but as this ownership pattern has become more common its effect on closure rates appears to be waning.

For two-year degree granting for-profits, I find that diversification of program does not decrease the likelihood of closure as it did for schools that offer bachelor's degrees since my variable controlling for whether or not the school also offered an occupational program was not significant. My community level controls also showed a different pattern to one that I found in for four-year degree granting for-profits. The number of community colleges in the state significantly increased the odds of closure in Model 8 of Table 6.2, which included only the schools that opened in 1988 and beyond. This suggests that new two-year degree granting forprofits may be competing with community colleges for students while for-profits that offer four-year degrees may be drawing from a different potential enrollment pool. As this finding is not significant in the models that include all two-year for-profits, I contend that newer schools offering degrees at this level may be conforming more to traditional community college standards and curriculums, thus creating a competitive environment where one did not exist before as suggested by Hentschke, et.al., (2010). This potential competition at the two-year level is further supported by the effect of the other community college variable on the odds of closure. I find that, unlike for four-year schools, an increase in the cost of community college tuition in the state lowers the odds of failure for two-year institutions. This also suggests that

students may be choosing for-profits that offer associates degrees as an alternative educational option to traditional community colleges, even if this is potentially not a rational choice in terms of cost alone.

Understanding the factors that influence the decision-making process of potential enrollees is an important area of inquiry, especially as there is some indication that for-profits are beginning to compete for the same students as TCUs. According to Kay Norton, President of the University of Northern Colorado, "[College administrators] have tended to focus on perceived rivalries among ourselves... We've got to understand the new reality: The folks that are eating your lunch are not the public institutions down the road but these for-profit providers" (quoted in Poppen 2010). While my data cannot illuminate the pathways that lead to individual student choices, I consider this to be another line of inquiry that is critical for comprehension of how for-profits are having an impact on the community college system in particular. The actual presence and level of this competition should be examined in future research.

| Variables | Mod | el 1 | Model 2 | | Model 3 | | Model 4 | | Model 5 | | Model 6 | | Model 7 | | Model 8 | | |
|--|------|------|---------|------|---------|-----|---------|-----|---------|-----|----------|-----|----------------|-----|-----------|-----|--|
| Variables of Interest | | | | | | | | | | | | | | | | | |
| Transition: Up | 1.40 | * | 1.21 | | 1.17 | | 1.15 | | 1.08 | | 1.13 | | 1.11 | | 3.55 | * | |
| Transition: Down | 2.12 | ** | 3.61 | *** | 4.13 | *** | 4.15 | *** | 3.57 | *** | 3.69 | *** | 3.52 | *** | 13.2 | *** | |
| National Density of 4-Year FPCUs | | | 3.67 | *** | 1.50 | | 1.55 | | 1.56 | | 1.63 | | 1.62 | | 2.80 | | |
| National Density of 4-Year FPCUs Squared | | | 0.87 | *** | 0.97 | | 0.97 | | 0.97 | | 0.97 | | 0.97 | | 0.95 | | |
| Age | | | | | | | | | | | | | | | 0.70 | *** | |
| Timing | | | | | | | | | | | | | | | | | |
| After New FAFSA Regulations (1993- | | | | | | | | | | | | | | | | | |
| 2010) | | | | | 7.48 | *** | 7.72 | * | 8.61 | *** | 8.28 | *** | 9.27 | *** | 2.23 | ** | |
| School Characteristics | | | | | | | | | | | | | | | | | |
| School is Owned by Educational | | | | | | | | | | | | | | | | | |
| Corporation | | | | | | | 0.45 | *** | 0.44 | *** | 0.45 | *** | 0.47 | *** | 0.63 | | |
| Have Occupational Program | | | | | | | 0.99 | | 1.01 | | 1.01 | | 0.99 | | 1.52 | | |
| Accreditation Status | | | | | | | | | | | | | | | | | |
| National Accreditation Only | | | | | | | | | | | | | 2.58 | *** | | | |
| No Accreditation | | | | | | | | | | | 1.67 | * | 3.84 | *** | | | |
| Community Influences | | | | | | | | | | | | | | | | | |
| Number of Community Colleges Per 1M Stat | e | | | | | | | | | | | | | | | | |
| Residents | | | | | | | | | 0.95 | | 0.94 | | 0.94 | | 1.25 | ** | |
| Average Community College Tuition and | | | | | | | | | | | | | | | | | |
| Fees | | | | | | | | | 0.97 | *** | 0.97 | *** | 0.97 | *** | 0.92 | ** | |
| Ν | 186 | 70 | 18670 | | 18670 | | 18670 | | 18670 | | 18670 | | 18670 | | 5294 | | |
| Negative Log Likelihood | -135 | 0.5 | -130 |)5.8 | -1293.5 | | -1283.1 | | -1261.8 | | -1259.46 | | 59.46 -1251.2° | | 7 -149.14 | | |

Table 6.2: Odds of a Two-year Degree Granting FPCU Closing

Notes: All variables except for the FAFSA Era dummy variable are lagged by one year *p<.05 **p<.01 ***p<.001

In the final model of my regression on to two-year degree granting FPCUs, I control for the effect of age. I note that a much larger percentage of two-year degree granting for-profits were open at the beginning of the data window than four-year schools, so this should not be interpreted to apply to all two-year degree granting for-profits in the population. For these schools that have opened since 1987, however, age significantly reduces the likelihood of closure. Additionally, in this sub-population of two-year schools, the effect of the FAFSA regulations on the likelihood of closure is smaller, although still significant and in the same direction. I suggest that this again provides some support for the idea that two-year for-profits opening in more recent years are adopting a form more similar to TCUs than was common in for-profits from eras further in the past. Finally, as mentioned above, Model 8 also shows that for institutions that opened since 1987, being owned by an educational corporation does not have the significant protective effect that I found in the other models. This may mean that as two-year degree granting for-profits in general began to model themselves on the traditional school blueprint, differences in design or resource related to corporate ownership are becoming less distinct.

In total, my findings on two-year schools demonstrate that the causes of closure for two-year and four-year degree granting schools are not the same, providing further corroboration of my assertion that for-profit education should not be conceptualized of as one homogeneous population. In Table 6.3, I present my findings for non-degree granting schools, which also show a distinct pattern in their causes of closure. As my results show, for nondegree granting schools, transitioning "up" to offering associate's degrees significantly decreases the likelihood of closure. In hypothesis 6.2, I suggested that adding a degree

program is a large structural transformation for a postsecondary institution, and thus that the likelihood of closure would increase for schools that added an academic degree program. The fact that my data showed the opposite effect indicates to me that transformation toward an institutional norm, even if this change requires a large number of resources, can be beneficial to the survival of an organization. This supports the idea forwarded in the neo-institutional literature recently that some changes can be positive to survival, and goes against the competing hypothesis (H6.6) from population ecology theory that any change will be detrimental to the odds of survival.

While that hypothesis based on population ecology was not supported, my results do show that non-degree granting institutions were the only type of postsecondary for-profit for which the density of four-year degree granting for-profits influenced the likelihood of closure. While I did not expect that degree-granting for-profits would not be affected by increases in density, this increase in the odds of closure for non-degree schools aligns with hypothesis 6.10. In this hypothesis, I suggested that competition with four-year degree granting for-profits (as measured by density) would lead to an increase in the failure rates of non-degree granting schools. In each model of the table this variable raises the odds of closure by over two times, but the effect levels off at a certain point because the square terms are significant in the opposite direction. I am surprised to find this outcome only with non-degree granting schools, as I would expect competition to be stronger between four- and two-year degree granting for-profits than between four-year and non-degree granting schools. This finding does remain robust across all of my models, even Model 8 with only more recently opened schools. This may mean that the non-academic certificate programs offered by four-year degree granting schools

are similar to those offered by non-degree granting schools. Examining the relationship of these programs and the process of student choice in picking which one to attend is an interesting avenue for future research.

Non-degree granting schools closed at a relatively high rate across all the years of my study until the early 2000s (recall Figure 2.7). Therefore, I was especially interested in looking at the effects of the institution of FAFSA regulations in this analysis. As with the other types of for-profits, the presence of stricter FAFSA regulations increased the odds of closure for non-degree grating postsecondary for-profits, except in Model 8 with only non-degree schools that opened after 1987, which did not show a significant change in likelihood of closure. The FAFSA laws were created in an attempt to end issues of financial aid abuse and poor educational outcomes (Kinser 2006), so it is probable that newer for-profits opened with the assumption of increased scrutiny, and this may account for the non-significant role of FAFSA in the final model.

In order to examine this finding in greater detail, I ran regressions with a further breakdown of my era variables (not shown), and did find that there was a significant difference between the likelihood of closure in years 1987-1990 as opposed to years 1991-1993. Along with splitting the pre-new FAFSA era, I chose this breakdown in years because the late 1980s were the height of the investigations of student loan abuse in the Regulation Era (Kinser 2006) (the drastic decrease in the number of operational non-degree granting for-profits was also shown in Table 2.1). Through this additional analysis, I found that for non-degree granting schools, the odds of closure were significantly higher in the late 1980s era than 1991-1993, or post-FAFSA. Therefore, for non-degree granting schools, regulation plays an especially large

role in the causes of closure, with periods of heightened regulation leading to especially high amounts of failure in this type of school.

Along with the effects of FAFSA and other governmental regulations, I also examine the effects of accreditation status on the likelihood of closure for non-degree granting for-profits. These results on the influence of accreditation for non-degree granting schools diverge greatly from my analyses of FPCUs that offer degrees. In Model 6 of Table 6.3, I was surprised to find that not being accredited lowers the likelihood of closure for non-degree granting schools. Further, Model 7 shows that schools without any accreditation or with only a national level accreditation are about two times less likely to fail during the study window than schools with regional accreditation status (although it is important to note that slightly less than four percent of non-degree granting schools have regional accreditation, and it generally occurs only when a non-degree granting school is part of a regionally accredited for-profit chain). The overall fact that having any accreditation increases the likelihood of closure seems counterintuitive, but it is feasible that something in the process of getting accredited may destabilize a non-degree granting school. For example, if accreditation requires drastic changes to institutional structure or curriculum, the school may not be able to maintain operation with those alterations in place over the long term. I cannot test this suggestion with my data, but the reasons that accreditation harms the survival chances of non-degree granting for-profits requires further analysis.

| Variables | Model 1 | | Model 2 | | Model 3 | | Model 4 | | Model 5 | | Model 6 | | Model 7 | | Model 8 | |
|---|---------|------|---------|------|---------|------|----------|-----|----------|-----|----------|-----|---------|-----|----------|-----|
| Variables of Interest | | | | | | | | | | | | | | | | |
| Transition: Up | 0.58 | *** | 0.66 | *** | 0.67 | *** | 0.69 | ** | 0.67 | ** | 0.65 | *** | 0.63 | ** | 0.76 | * |
| National Density of 4-Year FPCUs | | | 4.26 | *** | 2.19 | *** | 2.83 | *** | 2.60 | *** | 2.49 | *** | 2.51 | *** | 3.14 | *** |
| National Density of 4-Year FPCUs Squared | | | 0.87 | *** | 0.94 | ** | 0.91 | *** | 0.92 | *** | 0.93 | *** | 0.92 | *** | 0.79 | *** |
| Age | | | | | | | | | | | | | | | 0.82 | *** |
| Timing | | | | | | | | | | | | | | | | |
| After New FAFSA Regulations (1993- | | | | | | | | | | | | | | | | |
| 2010) | | | | | 3.22 | *** | 4.43 | *** | 4.99 | *** | 5.02 | *** | 4.98 | *** | 1.64 | |
| School Characteristics | | | | | | | | | | | | | | | | |
| School is Owned by Educational | | | | | | | | | | | | | | | | |
| Corporation | | | | | | | 0.32 | *** | 0.32 | *** | 0.33 | *** | 0.31 | *** | 0.18 | ** |
| Have Academic Program | | | | | | | 2.82 | *** | 2.96 | *** | 2.93 | *** | 2.93 | *** | 0.66 | * |
| Accreditation Status | | | | | | | | | | | | | | | | |
| National Accreditation Only | | | | | | | | | | | | | 0.48 | *** | | |
| No Accreditation | | | | | | | | | | | 0.81 | ** | 0.42 | *** | | |
| Community Influences | | | | | | | | | | | | | | | | |
| Number of Community Colleges Per 1M State | • | | | | | | | | | | | | | | | |
| Residents | | | | | | | | | 0.96 | ** | 0.96 | ** | 0.96 | ** | 1.06 | * |
| Average Community College Tuition and | | | | | | | | | | | | | | | | |
| Fees | | | | | | | | | 0.99 | ** | 0.99 | ** | 0.99 | ** | 0.99 | |
| Ν | 678 | 320 | 67820 | | 67820 | | 67820 | | 67820 | | 67820 | | 67820 | | 22961 | |
| Negative Log Likelihood | -580 |)4.5 | -538 | 39.5 | -535 | 59.6 | -5238.87 | | -5117.45 | | -5113.07 | | -5095.8 | | -1379.51 | |

Table 6.3: Odds of a Non-Degree Granting For-Profit Institution Closing

Notes: All variables except for the FAFSA Era dummy variable are lagged by one

year

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

One potential factor that may reduce the chance of a non-degree granting for-profit closing because it cannot meet governmental guidelines is ownership by an educational corporation. Most of these corporations own chains of schools and have the resources and knowledge to meet the requirements for operation and federal aid disbursement. In line with this, I find that across all of my models in this analysis, ownership by a shareholder corporation reduces the odds of closure strongly. My results also show that having an academic-focused certificate program increases the likelihood that a non-degree for-profit will close by almost three times across all models, except Model 8. Overall, the increased odds suggest that trying to diversify program offerings away from vocational/occupational foci is detrimental for these schools unless they make the large transitional jump to offering a degree program. For the more recently opened schools included in Model 8 of Table 6.3, however, having an academic certificate program actually reduces the likelihood of closure. I contend that this finding demonstrates the change in for-profit education during the modern era. Historically, for-profits were expected to have a vocational or occupational curriculum, and academic programs were likely a drain on resources. The growing legitimacy of the academic degree-granting for-profit, however, may also have rendered non-degree academic programs in for-profits acceptable and desired, and thus profitable.

In terms of environmental influences, both the number of community colleges in the state and the average tuition and fees cost significantly influenced the odds of closure for nondegree for-profits. In this analysis, I find that increases in the number of community colleges in the state significantly lowers the likelihood of closure for these schools, although in Model 8 the direction of this finding reverses. This finding could mean that non-degree granting for-profits

do not generally compete with community colleges for students or resources, but may benefit from higher levels of state support for programs that are common to both types of schools, such as vocational education. As for-profit education has moved in an increasingly traditional and academic direction, however, new non-degree granting schools may in fact be experiencing competition with community colleges for resources such as students, and this contributes to that leads to the increased odds of closure for those schools only. The final finding of note in this analysis is that age protects against closure for non-degree granting schools as well as degree-granting ones, at least those that opened since 1987.

Main Implications of These Findings

Theoretical Conclusions and Implications

One of the main questions regarding change in organizations is what degree of change is either protective or disruptive to survival chances (Amburgey, Kelley, and Barnett 1993), an inquiry that I examined through a study of degree-level transformations by each type of postsecondary for-profit institution. Using neo-institutional and population ecology theories, I created competing hypotheses about the effect that a transformation would have on the likelihood of closure. The first was that in line with neo-institutional theory, transitions that brought a for-profit school closer to the new institutional norm of four-year degree granting for-profit schools would lower the likelihood of closure despite the associated opportunity costs. My investigation demonstrates, however, that this is not the case. Instead, movement toward to offering two-year degrees decreases the likelihood of closure for both four-year and non-degree granting schools. This shows that while the four-year degree granting model is

currently central to discussions of for-profit schools, the institutional form that offers the best survival chances is in fact the two-year degree granting for-profit model.

For each type of for-profit institution, a transition to offering a two-year degree decreased the likelihood of closure, and a transition away from this level of degree offering increased the odds of failure. This demonstrates that, at least for for-profit institutions of higher education, making a transition can be worth the costs to an organization if it makes the *right* transition. This aligns with the findings of Haveman (1992) and is opposed to the assumptions of population ecology. Multiple organizational theorists have suggested that knowing the correct change to make is nearly impossible (Aldrich and Ruef 2006), but it appears that the best survival chances for for-profits lies with aligning an organization with a known form as opposed to a new model that has just entered the organizational environment.

Conversely, I do not find much support for the propositions of population ecology in the analyses in terms of transformation or the effects of density/competition. The density of fouryear degree granting for-profits had no significant effect on the closure rates of for-profits that offered any level of degree. I conclude, therefore, that the density dependent argument I presented, drawing on population ecology, did not predict the likelihood of closure to any great extent. As I mentioned in the results section, however, it is possible that I am not finding support for a density-dependent effect because the population of four-year degree granting for-profits is too young. A small number of these schools have closed at this point, and their density may not be high enough yet to affect the closure rates of the other types of for-profit schools. As I did find support for the density-dependent argument in my founding analyses, I don't want to discount the possibility that my lack of findings regarding this theory in this

chapter has to do with the timing of my study. This analysis should be redone when more time has passed to see if the results differ.

Practical Implications

In this investigation, I demonstrated that increases in the age of a for-profit school decreased the likelihood of closure regardless of the level of degree offered. While this finding is only for schools that opened during my study window, it shows that if a for-profit can establish itself during the first few critical years, it greatly reduces the odds that it will fail in the future. I also found that for two-year and non-degree granting schools, having corporate ownership significantly reduced the likelihood of closure, a result that is probably related to the resources that educational management companies can provide to schools, both financially and structurally. In addition, shareholder corporations have a special stake in avoiding the closure of any schools that they own/run because any failed schools might indicate to the public that the company is struggling and thus reduce the value of the stock.

Both of these findings will have important implications for the new regulations that states are attempting to institute with the purpose of limiting the for-profit system. My results imply that the outcomes of new regulations could be highly variable and are hard to predict. One possibility is that they will not have a long term detrimental effect on for-profits despite some initial indications that the regulations, coupled with the recent recession, are leading the a decline in the for-profit system (Pope 2012). While these factors may have stemmed the tide of new openings, my investigation demonstrates that every year that a for-profit is able to survive decreases the likelihood of closure, and at this point a number of four-year degree granting for-profits have been open for over a decade or more. Even more importantly, my

work demonstrated that corporate ownership is protective for these schools. The high stake that many shareholder corporations have in preventing closure (and oversight) will lead them to fight these regulations, and they have vast financial resources to do so. To a certain extent the outcomes of this fight have already been prescribed: in 2012, key portions of the new national laws (including the gainful employment requirement) were struck down (Kirkham 2012b), and many observers believe this was due to lobbying efforts by the for-profit system (Halperin 2013a). The effects of corporate ownership, therefore, may have far reaching consequences, leading the new laws and regulations to have a much smaller long-term effect on the for-profit system than would be expected otherwise.

Alternatively, the other possibility is that these regulations will have far-reaching consequences for for-profit schools, a prediction that would also be indicated by some of my findings. Throughout this investigation I found that regulatory forces had a significant effect on each organizational process. For example, the odds of closure increased significantly in all types of for-profits after FAFSA regulations were strengthened in 1992.

Accreditation requirements also played a role in increasing closure rates for non-degree granting schools, as having accreditation actually increased the incidence of closure. This was not the case for for-profits that offered degrees, however; for these schools, any accreditation led to lower odds of closure, but a more prestigious regional accreditation was also more protective against failure. I suggest that for degree-granting schools, accreditation is an indicator of legitimacy and thus improves survival chances, but for non-degree granting schools the costs of achieving accreditation may outweigh any potential benefit. In fact, some policy makers have suggested that potential for-profit students lack an understanding of what

accreditation is or why it should be important in enrollment decisions, and this information is not made readily available to them (Health Education Labor and Pensions Committee 2012). Further, accreditation is required for eligibility in student loan programs, so any schools that are able to survive without it have managed to gather a student body that pays tuition out-ofpocket and thus is likely relatively low-cost. This is most common in small, independently owned career schools, which may be able to survive without accreditation but would not be able to afford the various costs associated with being accredited by a national or regional agency. The response of accreditation agencies to the current climate surrounding for-profit schools will therefore have implications for the system. If these agencies invoke stricter standards above and beyond those instituted in new state and national laws in order to protect their own legitimacy (as some recent cases indicate (Kirkham 2012a)), this could lead to an even higher closure rate among for-profit institutions.

Conclusion

One of the main ways that postsecondary for-profit institutions differ from TCUs is that these schools can and do enter and leave the organizational environment quickly and with great frequency. A rapid closure of this type of educational institution may be beneficial to the owners of a for-profit school because an institution that is not achieving profit-based goals can be shut down in a short period, preventing further financial loss. The closure of one of these schools will likely be detrimental to current students, however, as they may be left with nothing to show for their time and tuition money. Further, past students who were able to graduate may still find their certificates/degrees to be essentially worthless if no infrastructure remains for an employer to contact for transcripts or confirmation of graduation (Halperin 2013b). It is

the case that a number of politicians as well as other public figures have touted the closures of for-profit schools as a positive development due to the ongoing issues associated with the system, but the potential lasting results of large-scale closures in the for-profit system for both students and the economy are unknown (Pope 2012). The investigation of these outcomes is an important task for researchers in higher education in the future.

The theoretical and substantive conclusions I draw in this chapter supplement the analyses that I presented in the previous two. Taken as a whole, my findings on the foundings, transformations, and closures of for-profit institutions of higher education paint a much more complete picture of this organizational population than was previously available. In the next and final chapter, I discuss these findings broadly and comment upon what they may suggest for the future of the for-profit higher education system.

CHAPTER 7

CONCLUSION

The for-profit system is currently a conspicuous player in higher education that has seen its influence and market share grow in recent years. Whether we will see this pattern continue in the future or witness a reversal of fortune for this system, however, is not clear. My dissertation broadens our understanding of this changing population, a step which is critical before predictions can be made regarding what effect this population may have on higher education in the coming years. To enhance the literature on American postsecondary for-profit education, this study explored patterns in the foundings, transformations, and closures in the population of degree-granting and non-degree granting for-profit schools during the years of 1987 through 2010. In this conclusion chapter, I begin with a summary of the main results from each of the analyses presented above. I then consider what these findings suggest in light of the current political climate surrounding for-profit higher education, and move into a discussion of some potential future directions for for-profit higher education as the system attempts to adapt to these changes. Finally, I present a few limitations of this study and suggest some potential directions for further research.

Summary of Results

While I cannot predict exactly what the coming years will hold for for-profit education, I contend that the research presented in this dissertation was an important development in understanding the state of the for-profit system in the United States. As I point out in the

introduction, calls for a national "audit" of the postsecondary for-profit sector stretch from the 1960s (Miller and Hamilton 1964) to today (Health Education Labor and Pensions Committee 2010). In this research project, I helped to correct this deficit in the literature through the use of a national longitudinal dataset to show the current state of the for-profit organizational population, and the factors that have influenced the foundings, transformations, and closures of these schools since 1987.

This research demonstrated that the exponential growth of the four-year degree granting for-profit population has had implications for both the for-profit and non-profit sectors of higher education, and in line with researchers like Ruch (2001), I expect that the outcomes of this realignment in the higher educational environment will be lasting. I discuss first what my findings demonstrate in terms of changes in the for-profit population, and then what they suggest regarding responses by the non-profit population.

The For-Profit Sector

My results show that the recent exponential population growth of four-year degree granting FPCUs has had a number of implications for the for-profit sector as a whole. As this for-profit form has garnered cognitive legitimacy, it has influenced in particular the foundings and transformations of other types of for-profit higher education, which operated with relative success for many years before four-year degree granting schools began to gain in numbers (see Chapter 2). That this density-dependent pattern (expanded upon in Chapters 4 and 5) extends to two-year degree granting for-profits provides support for my argument that legitimacy transfer is occurring in this population of for-profit schools. I hypothesized in Chapter 4 that for-profits offering any type of degrees are cognitively related, and thus increases in legitimacy

at the four-year degree-granting level should increase legitimacy at the two-year level, which is exactly what my results showed.

This finding that cognitive legitimacy is extending to two-year degree granting for-profits suggests that we should begin to see the numbers of two-year degree granting for-profits begin to rise as well in the coming years, assuming that there are no significant policy changes that prohibit this from occurring. As Figure 2.7 shows, two-year degree granting for-profits have been increasing their market share slightly in recent years, but if public perceptions of these schools as legitimate educational options continues to increase, I would expect a corresponding increase in the enrollments at this type of institution.

At the same time, in the current political climate, the presence of legitimacy transfer between four- and two-year degree granting for-profits may also be detrimental for these twoyear schools. In a study on the results of deviance by a single corporation on the other organizations within the population, Jonsson et. al. (2009) found that aberrant behavior by one organization was generalized by the public to other similar institutions. Further, this effect was greatest for the organizations that were more similar to the deviant one, leading the authors to conclude that the strength of this outcome relies on the categorizations made by the audience in question. If two-year degree granting schools are currently conceptualized of as part of a larger degree-granting population of for-profit schools, then the backlash against the high dropout and default rates of four-year degree granting for-profits may extend to them as well.

Further, in my transformations analysis I found that a significant number of two-year degree granting schools are making the transition to offer bachelor's degrees as the legitimacy of this form grows. However, my closures analysis showed that this four-year degree granting

organizational form did not offer the best chance for survival, where in fact two-year degree granting schools had a lower failure rate. This finding suggests that attempts to adopt the form that is perceived as successful and the true outcomes of such are not necessarily aligned for this population. Thus, I contend that despite their long history, the future prospects for for-profit institutions offering associate's degrees is going to depend to a large extent on how effectively the population of four-year schools adapts to changes in both regulations and public perceptions in the coming years.

Interestingly, however, legitimacy transfer and normative isomorphism does not occur between four-year and non-degree granting for-profits. This finding has both theoretical and practical implications. Theoretically, this demonstrates the complexity of the cognitive legitimacy transfer process. For the for-profit school population as a whole, legitimacy does transfer between for-profits that offer degrees, but not between for-profit institutions of higher education in general. At the same time, my results also show that four-year and non-degree granting for-profits compete for resources. Taken together, these findings imply that cognitive legitimacy has to do with the sociopolitical definition of organizations that are similar, which may or may not reflect actual business processes or the realities of the organizational environment.

On the practical side, the lack of legitimacy transfer between four-year and non-degree granting for-profits means that both the success and potential failure of the four-year population can be expected to have less of a immediate or lasting effect on non-degree granting schools. These schools have generally offered vocational educational programs with a short duration and immediate career application, and the outcomes for this sector will have

more to do with consumer demand for that type of instruction than it will with the fate of degree-granting for-profits. This is not to say that these schools will not be affected by the new laws and regulations that are going into place, but the influence of current negative public opinion at least is likely to be muted.

The Non-Profit Sector

In addition to the effects of four-year degree granting for-profits on the for-profit sector as a whole, my results suggest the presence of competition between for-profits and community colleges. As I discuss in Chapter 4, community college administrators are taking notice of these schools as competitors for students, and some are changing their programmatic offerings in response to this (perceived) threat. For example, by the turn of the twenty-first century over 70 percent of community colleges were offering computer-based distance education, and the rate has only continued to rise (Bailey 2001). In the opinion of Thomas Bailey, this is at least in part a response by community colleges to competition with for-profit schools that offer advanced degrees. He writes, "The University of Phoenix and DeVry Institutes... appear to have been able to attract adult students with strong occupational objectives. In the past, community colleges have prided themselves on being able to service precisely these types of students" (2001 : 61).

The outcome of for-profit/community college competition is far from certain for either population. At best, we can be sure that the growth of four-year degree granting for-profits has created a great deal of uncertainty in higher education, and the picture is further complicated by issues related to funding. On the one hand, both of these school types will face changes related to new FAFSA regulations, but community colleges may see less of an impact due to

their generally more traditional forms. On the other hand, if higher education is moving in new directions and adaptation will be necessary for survival, community colleges are likely to be at a disadvantage because they do not have access to capital markets like many for-profit schools.

As a result, a growing body of evidence suggests that community colleges (and even public/private schools that offer bachelor's degrees) are transforming toward a more corporate model (Ruch 2001; Tuchman 2009). To improve their balance sheets, many community colleges have been making concerted efforts to develop new markets and sources of revenue. In fact, across the nation almost every community college has been working to grow their certificategranting and continuing education programs for the simple reason that these programs have proven to be more profitable than traditional degree programs on average (Bailey 2001). As was demonstrated to a large extent by the for-profit system, non-degree programs have a number of advantages, including fewer regulations in relation to accreditation and state requirements, as well as the opportunity for corporate sponsorships and partnerships.

Whether for-profit colleges continue to be successful, the changes in the non-profit system that they have inspired are likely to be lasting. My research demonstrates that community colleges and for-profits are interacting in the organizational environment of higher education, and the other work that I have cited here shows that the results of this interaction and competition have been relatively extreme, at least in terms of transformations to organizational structure. It appears that the combination of this competition and the new regulations being enacted has resulted in for-profits moving toward a more traditional model at the same time that community colleges are adopting many for-profit characteristics. If both of these school types are forced to balance FAFSA and accreditation requirements with the

necessity of corporate funding either through ownership or partnership, the distinctions between them will likely continue to fade.

Overall, these findings suggest the need for ongoing research into the effects that forprofit education is having on the higher education system in the United States. The place of postsecondary for-profit schools in the higher educational realm is still under negotiation, and this project's research is only a starting point. Ongoing engagement with the questions that I asked in this dissertation will be highly important in postsecondary education during the coming changes being ushered in by the new laws and regulations. For-profit higher education has come to have an important place in higher education, and while this sector does face significant challenges, it also has a great deal of potential to adapt and find new ways to achieve success. In the next section, I discuss a few potential directions that for-profit education may take in the coming years.

The Future of For-Profit Higher Education

In the United States, the for-profit higher educational system has had a varied and complex history. Periods of growth and rising enrollments have been followed by periods of decline, and multiple forms of for-profit schools have opened and operated with varying degrees of success (Kinser 2006). In the late 1990s and throughout the first decade of the twenty-first century, for-profit colleges and universities appeared to have developed a winning formula, with enrollment growing exponentially and federal student aid programs providing billions of dollars to this sector each year (\$132 billion in 2010) (Government Accountability Office 2011). Very recent indicators, however, suggest that this trend may be starting to shift,

with a few of the largest for-profit chains seeing some decline in enrollment during the last academic year (DeVry Inc. 2012).

Whether this is the start of a downward trend or leveling off in the growth of the forprofit system, there is no reason to expect that for-profit higher education will cease to be an influence in the higher education realm in the foreseeable future. As I discussed in Chapter 2, for-profit education has previously proven resilient, and transformed itself to meet challenges such as public scrutiny and governmental regulation. This does not mean, however, that the recent push for strong reform of the for-profit sector will not have real consequences, as institutions of higher education now face significantly stricter rules regarding student aid and student outcomes (U.S. Deparment of Education 2010).

New Rules and Regulations

During the next few years, for-profits will face new laws at both the state and national level that will be quite different from anything previously enacted. Most centrally, for-profit schools will now be held liable for student outcomes in terms of not only graduation rates, but also employment. Along with a variety of state-level rues, two new federal regulations have been written (although the final version of the second has been delayed due to intense lobbying by for-profit colleges and legal challenges). The first regulation requires schools to report student loan defaults over the three years following either graduation or dropout, instead of the current two year standard (Blumenstyk 2010). The other is a "gainful employment" rule that will require colleges to eliminate or drastically reduce programs that produce graduates with high levels of debt relative to average earnings (Stratford 2012).

Under these new regulations, it seems inevitable that for-profit institutions will be forced to make some major changes if they want to survive. According to a U.S. Senate report released quite recently, the average tuition cost at for-profits for both degrees and certificates is significantly higher than at other institutional types. In fact, the average cost of an associate's degree at an FPCU was approximately four times as much as the same degree at a comparable community college (\$35,000 versus \$8,300 respectively) and a bachelor's degree at an FPCU had an average tuition cost of over \$10,000 more than the same degree at a public flagship university. Even certificate programs were significantly more expensive, costing an average of \$19,806 versus \$4,250 to get the same certification at a public college (Health Education Labor and Pensions Committee 2012). These high costs were not passed back to students in the form of instruction; according to the same report, the for-profit higher educational system as a whole spent less on instructional and educational costs than on either marketing and recruiting or profit.

In addition, more than half of students who enrolled in a for-profit school in the academic year 2008-9 left without a degree or diploma within a median period of four months (Health Education Labor and Pensions Committee 2012), but having already accrued student loan debt. It is these glaring problems with the current state of for-profit higher education that has led to the new laws described above, as well as calls for even stricter future regulation. Some proposed measures include forcing schools to spend at least a certain designated percentage of the money taken in on instruction and the enforcement of minimum standards for the provision of student services. Overall, the for-profit system as a whole can expect to face significant oversight in the future, and will almost certainly be faced with the need to make

far-reaching changes in the profit-maximizing model under which most of these schools have been operating. As a result, many interested parties have begun to question whether in the coming years, the for-profit sector will become increasingly marginalized, maintain its current market share, or regain its trajectory of growth.

Multiple potential outcomes are possible for the for-profit system in light of the new laws and regulations that have been specifically written to limit for-profit growth and change the current practices of for-profit institutions such as instruction and recruiting (Kirkham 2012c). The first possibility is that these new laws will not have the expected and desired regulatory effect. As I discussed in previous chapters, for-profit schools in many ways resemble government-sponsored enterprises (GSEs) as defined by Koppell (Koppell 2001). These organizations, with Fannie Mae and Freddie Mac being two prominent examples, are stockholder owned with profit-seeking missions, and yet they are sponsored by and at least partially responsible to the U.S. Government. Thus they have been described as public-private hybrids, and I argue that for-profits have many of the same characteristics. The new population of four-year degree granting for-profits has been funded to a great extent through federal financial aid money, but they are privately held shareholder corporations.

The similarity between these two organizational types means that it may be possible to predict some outcomes of the new laws and regulations on for-profit schools based upon the ways that GSEs were affected by the rules put into place as a response to the recent financial crisis. According to Koppell, so far evidence exists to suggest that governmental regulations may have little effect. He concludes that, "The infrastructure to "control" [GSEs] may exist, but GSEs have the resources, ability, and position to control their own controllers" (2001 : 478).

Just as Fannie Mae and Freddie Mac have become political heavyweights, for-profit higher education has a great deal of political clout. In fact, between 2007 and 2012, for-profit colleges spent almost \$40 million on lobbying efforts (Kingkade 2012). Again, the outcomes of this political battle are difficult to predict, but we can expect that it will be hard fought and ongoing.

Alternatively, it is feasible that for-profit institutions will quickly adapt to meet the new requirements and as a result begin to resemble traditional colleges and universities even more than they do currently, as I proposed in the previous section. Finally, the response of for-profits may be to attempt to find new ways of providing profit-creating educational services that do not fall under the proposed body of regulations, a possibility that is quite likely due to the propensity of for-profits to change rapidly (Ruch 2001). Below I discuss one such possible innovation: the massive open online course, or "MOOC."

Across higher education in general, online education has become an increasingly significant part of the course offerings for all levels and types of institutions. In a recent study, Allen and Seaman (2008) found that approximately fifty percent of administrators across all sectors reported that online education was "critical" to the long-term strategy of their school. The popularity of online education in post-secondary institutions comes from a number of factors, including the fact that it offers flexibility for students and also that online courses generally have the same tuition costs even though they may have a lower resource cost for the school.

The basic model of online education is not an innovation in and of itself. In this type of education, enrolled students are offered online courses that are substantively similar to those that would be taught in a classroom, and the courses are supposed to be subject to the same
requirements and regulations as in-person classes. In the future, it appears that the provision of online education may be subject to even more oversight than courses taught in the traditional format, as concerns about the abuse of this system have led the U.S Department of Education to call for accreditation institutions to institute stricter policies and higher standards for the approval of online coursework (Kelderman 2011).

In the wake of these legal and policy challenges, the MOOC has risen as an alternative format for mass online education. A few key features define MOOCs and differentiate them from basic online higher education courses. According to McAuley, et. al., (2010), MOOCs "share in some of the conventions of an ordinary course, such as a predefined timeline and weekly topics for consideration, but generally have no fees, no prerequisites other than Internet access and interest, no predefined expectations for participation, and no formal accreditation." In some more recent MOOCs that have been offered, the student-teacher ratio has been greater than 150,000-1 (Byerly 2012), effectively eliminating the opportunity for any sort of personalized interaction between the instructor and enrollees, and currently there is no quantifiable outcome for someone completing the course such as the accumulation of credit. This does not mean, however, that MOOCs are focused on non-academic subject matter or offered through instructors or institutions that lack prestige. In fact, a search of the current courses available on Coursera[®], an online MOOC forum, include classes that are presented by instructors affiliated with Duke, Johns Hopkins, and Stanford, among others (Coursera.org 2012).

While the connection between free massive online courses such as those available on Coursera® and the for-profit higher educational system may not seem obvious at first, I use

this example to demonstrate the ability of the for-profit system to change to accommodate the current environment and innovate to find ways to use new opportunities such as the growth of MOOCs to generate profit. First, some for-profits have begun to offer credit for MOOC completion certificates (Stratford 2012), which allows these schools to encourage student enrollment and lower overhead costs. This can create profit even if students take fewer total classes during their time at the institution because students who matriculate will take still some courses through the for-profit and will pay other expenses such as student fees. In addition, there have been suggestions of a MOOC/for-profit partnership in which for-profits could offer MOOCs at no charge (Kim 2012). Doing this has the potential to provide exposure and indirect advertising for the for-profit school that would not fall under the new regulations on the percentage of tuition income that can be spent on recruitment efforts.

As a new development, there is the opportunity for MOOCs to have a transformative influence on higher education as a whole in ways that may not even be conceived of at this point (Lane and Kinser 2012). I do not attempt to add to the growing literature on MOOCs here, but simply suggest that the rapid response of the for-profit system to this recent development is an example of the continued ability of the for-profit system to adapt to changes in the organizational environment. This type of adaptation has served for-profits well in the past, and may continue to help the system to remain competitive in the coming years, despite the policy backlash against the for-profit educational system.

Limitations

While this research represents an important step in understanding the current for-profit system, there are issues that should be addressed in future research. Primarily, collection of

data at the institution-level as is the format of the IPEDS survey significantly lowers the level of detail that I could access about certain factors within each individual institution. In the closure chapter, for example, I found that having an accreditation lowered increases the odds of closure for non-degree granting schools, and suggested that internal changes may have accompanied the push toward gaining this status that ultimately destabilized the institution. While I would be interested in examining this possibility further, the IPEDS data does not provide the necessary information. I would need data on the micropolitical environment within the institution, and the potential internal changes such as, for example, a push toward increasing the "quality" of instructors.

In addition, I commented upon the increased success of organizations that offer both academic and occupational programs, but I cannot discuss these findings in much more detail. IPEDS lacks data on the success or popularity of specific programs of study (Sykes 2011), but in a for-profit institution, a few main degree/certificate options may dominate the offerings available to students (Poppen 2010). I was able to access information on whether the school had at least one active academic program in a given year, for example, but I could not identify the relative import of that program to the school in terms of enrollment or resource cost. Examining the enrollment level and costs of different programs offered at a for-profit and how this influences transformation and survival would be an interesting avenue of study.

The lack of information on student outcomes is also a main limitation of this data. Due to concern with unemployment and loan default rates, an examination of what jobs/salaries students are able to acquire after completing a for-profit degree/certificate, and whether this justifies the cost of the schooling is the logical next step. The IPEDS survey design does not

require this information, although Sykes (2011) suggests that it should be modified to include information on student financing of postsecondary education and resulting outcomes. It is also a known IPEDS problem that due to the complexity and diversity of community colleges in terms of program and form, the data is less complete and certain survey questions are difficult to translate to schools that do not match the traditional four-year prototype (Offenstein and Shulock 2009). I found that IPEDS had similar issues for for-profit schools as well. For example, there is a high amount of missing data in early survey years on variables that I would have liked to have included in this study, such as the presence of a tenure system, or average tuition cost by program for each school. Unfortunately, at this point this missing data would be nearly impossible to collect, especially for for-profit schools that are no longer operational. Despite these limitations, however, I contend that this dissertation contributes in important ways to our understanding of the current state of the for-profit system. While there are still unanswered questions, it should be used as a starting point for ongoing research into for-profit higher education.

Directions for Future Research

The need for research into for-profit colleges and universities as well as non-degree granting institutions continues despite the newfound interest in this sector. Differences in this period of growth during the modern era versus previous eras of for-profit education render this research especially important for a number of reasons. Primarily, for the first time, my research as well as that of Poppin (2010) shows that for-profit education is competing with TCUs for students and resources, although the extent of this overlap in potential enrollees is not known. There is no question, however, that for-profits have been accepting a huge percentage of aid

money on behalf of their students, and critics of the current for-profit system have argued loudly that there is a negative return on this investment for both students and the nation as a whole (Anderson 2011; U.S. Deparment of Education 2010).

It is outside of the scope of this research project, but one important question that remains regarding for-profit schools is: are they providing a quality education to their students that leads to a positive benefit in terms of employment and salary or quality of life? This query could be addressed in many ways, but would require student-level data that is not available through IPEDS. Potential future research projects could include data collection on student outcomes over time, or an audit study of employment outcome differences for resumes that include a for-profit degree versus one from a TCU.

In addition, a qualitative study of student experiences at for-profit institutions would be quite valuable. Currently, there is a dearth of research into what the role of student entails at a for-profit postsecondary school and also on how these students are navigating the for-profit system. In particular, we need more knowledge regarding how and why students choose a forprofit education over other potential options. We need to answer questions such as: Are these decisions driven by the for-profit marketing machine, as suggested by the recent report of the Senate Health, Education, Labor and Pensions committee (Lewin 2012), or by a more nuanced understanding by students of their educational options? and: Is it possible that for-profits are meeting the needs of some students such as program options or more flexibility when TCUs were unable to?

Another growing area of research into for-profit education is the global expansion of this type of school to countries outside of the United States, driven by multinational

educational corporations (Morey 2004), but much more work needs to be done. As American regulations on educational management companies become stricter, many of these corporations are looking overseas to new marketplaces that may lack the for-profit educational tradition and thus the body of laws present here (Kinser and Levy 2005). The reason that this type of growth is attractive to these companies is clear, but the legal and regulatory status and implications for local populations is not yet understood.

Finally, I contend that this study provides a starting point for ongoing study on the population of postsecondary for-profit institutions. In every part of this dissertation, my analyses showed that regulations and laws are central to the development, transformation, and survival chances of these schools. As discussed earlier in this chapter, for-profits are facing new federal and state regulations that can be expected to have a strong impact on the future forms and prominence of this education type. Therefore, continued longitudinal research is needed to understand how these changes will affect the landscape of for-profit education and higher education in general.

Final Thoughts

It is possible that in the coming years, for-profit education will fade into the background again, and the modern "Wall Street" era of for-profit education will be seen as a blip in long history of American higher education. For-profit education has cycled through periods of growth and decline before, and the new laws, the economic recession, or some other unknown factor may lead the for-profit system to lose most of the market share it so recently gained. There is reason to believe, however, that this will not be the case.

Higher education in general is going through a period of transformation, and economic necessity is forcing many TCUs to adapt in new ways (Tuchman 2009). As a result, some schools are turning (albeit reluctantly) to for-profits as a model of efficiency in the provision of education (Ruch 2001). Some of the most apparent changes include moves toward decreasing tenure systems and conceptualizing students as customers instead of disciples. Discussion of the pros and cons of these modifications in the classic academic ideal are ongoing and highly contentious, but scholars such as Ruch (2001) and Tuchman (2009) suggest that there is no cause to expect a reversal in these patterns anytime soon. Therefore, in the coming years, it is likely that for-profit education will continue to have a place in the postsecondary system. There are, however, different potential paths.

A few scholars have suggested that the for-profit sector may continue to thrive and take on the role of providing the completely teaching-oriented educational focus that is lacking in many traditional not-for profit schools (Breneman 2005). Alternatively, Kezar, et.al. (2005) contend that a backlash against market values in higher education will likely focus to a large extent on for-profit schools as the figurehead of this movement, potentially causing decline in the for-profit system. Either way, the growth of for-profit education during the Wall Street era will remain a critical moment in the story of American higher education. It is imperative, therefore, that we continue to improve our understanding of the for-profit system through valid and reliable research and a focus on all players in the system, individuals as well as all types of schools with postsecondary offerings.

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APPENDIX A

| Variables | | Four-Year Degree Granting For- Profits, Transition Down | | Two-Year Degree Granting For- Profits, Transition Up | | Two-Year Degree Granting For- Profits, Transition Down | | Non- Degree Granting For- Profits, Transition Up | |
|---|--------|---|---------|--|---------|--|--------|--|--|
| Variables of Interest | | | | | | | | | |
| National Density of 4-Year FPCUs | 7.4 | * | 1.49 | *** | 0.44 | * | 0.72 | *** | |
| National Density of 4-Year FPCUs Squared | 0.73 | ** | 0.93 | *** | 1.06 | | 0.96 | * | |
| Era | | | | | | | | | |
| After New FAFSA Regulations (1993-2010) | 0.45 | | 1.32 | ** | 0.87 | | 1.12 | | |
| School Characteristics | | | | | | | | | |
| School is Owned by Educational Corporation | 1.72 | * | 1.06 | ** | 0.85 | | 4.01 | *** | |
| Have Physical Library Facility | 0.31 | | 1.05 | ** | 0.42 | *** | 0.96 | | |
| Have Occupational Program | 10.81 | *** | 1.1 | *** | 1.02 | | 0.93 | | |
| Have Academic Program | | | | | | | 1.05 | *** | |
| Require High School GPA for Admission | 0.899 | | 0.83 | *** | 1.14 | | 1.61 | *** | |
| National Accreditation | 0.24 | | 8.42 | *** | 1.7 | * | 0.82 | | |
| Regional Accreditation | 0.21 | *** | 1.05 | * | 0.51 | *** | 2.17 | *** | |
| Community Influences | | | | | | | | | |
| Number of Community Colleges Per 1M State Residents | 0.94 | | 1.13 | *** | 1.02 | *** | 0.97 | ** | |
| Percent of State Population in Urban Areas | 0.97 | | 0.99 | *** | 1.05 | *** | 0.98 | *** | |
| Ν | 5281 | | 13709 | | 13709 | | 24183 | | |
| Negative Log Likelihood | -246.2 | | -9736.7 | | -9736.7 | | -11428 | | |

Appendix Table A: Final Models Using Complete Case Analysis (Compare to Tables X5.1-5, Chapter 5)

Notes: All variables except for the FAFSA Era dummy variable are lagged by one year *p<.05 **p<.01 ***p<.001