Constructions of Scarcity and Commodification

in University Strategy:

Restructuring at Virginia Tech

By

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Higher education institutions in the United States have come under increased scrutiny due to increasing demands for accountability in the use of public funds and increasing visibility (Altbach, Berdahl, and Gumport, 1999; Trow, 1974). Colleges and universities must continually prove their credibility and legitimacy to their stakeholders—including government officials (Lawrence & Sharma, 2002), donors, students, and sponsors. The proving process may involve engagement in legitimacy-seeking behaviors designed to show efficiency, access, and quality in terms defined mostly by external perceptions. The decision to concentrate organizational resources on activities designed to influence the opinions of external agents has the potential to lead organizations away from their core values and historic missions.

The case study that follows documents the restructuring of Virginia Polytechnic Institute and State University (Virginia Tech) and the drivers that led university administrators to pursue change. The case was developed based on a series of interviews with key informants associated with or affected by the restructuring process. Explanations for the restructuring and the underlying university goal of becoming a top 30 institution, included cost-savings and efficiency via a “fiscal rationalization”; the
framing of programs in terms of their entrepreneurialism, innovativeness, and revenue generating capacity; and an emphasis on the economic development benefits of university programs.

Even though Virginia Tech administrators were not expressly responding to external demands for restructuring, there was evidence to suggest that a need to construct a more business-like model for university structure and operations had entered the collective conscience of Virginia Tech’s leadership. I document the rhetoric and actions that I believe influenced university administrators in their decision to restructure. I also draw attention to administrators’ use of language that I believe exemplified the commodification of the university’s human and intellectual capital.

Theoretically, I believe that the constructs from resource dependency theory and neoinstitutional theory have relevance to the interpretation of this case. Specifically, the construction of legitimacy-seeking behaviors, the imperative to decrease reliance on external organizations (i.e., the state), and the institutionalization of acceptable management behaviors are aligned closely with the propositions of one or both of these theories. The lack of theoretical distinctiveness between these two organizational perspectives indicated a need for further research and limits the ability to anticipate the potential outcomes for Virginia Tech and the broader field of higher education.
Dedication

To Lauren and Reed,
Hold fast to your sense of wonder and don’t grow up too fast. Remember to make a positive difference. Be kind and generous, smart and funny, adventurous and ambitious, but most of all be happy.

To Carrie,
Thanks for loving me when I’m not lovable, for being a role model for two great children, for never buying into my self-doubt, and for holding off on your own dreams to help me realize mine. It’s your turn.
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I’m fortunate to have had an excellent committee to guide me through this process. I thank each of you for dealing with my inconsistency and the idiosyncrasies that came from my completion of this program while working full-time and raising a family.

From the moment Diane Zahm offered to sit in my prelims to avoid their cancellation due to snow, it has been obvious to me that she should have been on the committee all along. I thank her for fitting me into a very busy schedule and for bringing perspective from her rich experiences with university governance.

By his example, Alnoor Ebrahim has shown me what it means to be a young, productive scholar. I hope that at least some of his success and drive have rubbed off on me, and I sincerely appreciate his helpful comments during my defense.

Before moving to the popular retirement destinations of Moldova and Ukraine, Richard Zody got me into this mess. It was back in my master's level budgeting class that he somehow steered me away from environmental policy towards public management. A world traveler by any standard, Dr. Z was always the first person to answer my emails even with a seven or eight hour time difference. His encouragement has been invaluable.

Max Stephenson stepped in to co-chair my committee in the middle of the process. He has been extremely helpful, challenging me to think more critically and write more clearly. I’m not sure I accomplished either, but I’ll continue to strive to do so. In addition to his academic support, I’ve also appreciated his personal encouragement. He is an outstanding example of a scholar-teacher, and I hold him in high esteem.

Carol A. Bailey can be credited with keeping me on track during this process. She was the person I relied on more than any other for guidance and counseling. She helped me define my scholarly-self, insisted that I maintain my personal health, and made me believe that it would be worthwhile to finish. It may be a cliché, but I wouldn’t have finished without her.

My committee should also be credited with helping me more clearly articulate my concerns with the state of higher education. They persuaded me to consider the concept of mission displacement rather than mission drift to describe my observations, and they helped me think about the synthesis of two perspectives of organizational theory. For their input, I am grateful.

Aside from my formal committee, there was another group that helped me through this process. My friends at IDDL have all been patient and forgiving of my time spent working on this dissertation. Tom Wilkinson gave me an incredibly generous opportunity when he supported the flexibility of a part-time educational leave from my job responsibilities; I’ll hold myself to our terms of repayment—to offer a similar opportunity to someone else in the future. Tammie Smith, in addition to being a supportive IDDL
colleague, spent a considerable amount of her own time transcribing and formatting data for this document; that proved invaluable.

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The Virginia Tech Graduate Student Assembly also deserves recognition for their provision of a Graduate Research Development Program grant in support of my research.

My family is extremely important to me, and everyone in my extended family deserves partial credit for my completion.

My grandparents have encouraged me to pursue my education from the beginning. Their hard-work and kindness have always served as an inspiration to me.

My mother and father have given up a lot to see me succeed. I find it difficult to put into words the level of support they have offered.

My dad has taught me some of the most important lessons in life. From driving lessons on Bent Mountain to the submarine buried in the backyard to “help” memorizing sixth grade poems, these lessons aren’t always conventional, but they have shaped who I am. Dad is always there to remind me not to take myself too seriously.

Mom has taught me a lot too, but, just as importantly, she has taken being a good mother very seriously. She has an uncanny ability to know when I need some encouragement and when I need to be left alone. She shamelessly built up my ego, made sure I was dressed appropriately, and even offered to transcribe interview tapes.

My wife and children have sacrificed the most to see me succeed in this endeavor. For the last four years, they have endured periods during which I was either physically or mentally absent. They have always offered unconditional support, and they have never questioned the many hours that I had to be away from them to complete this work. It was always difficult for me to return to campus on those late evenings, knowing that I would miss my daughter learning to read, my son saying a new word, or my wife telling me about her day. I look forward to getting back to full-time status as a dad and husband.
I hope my family realizes that, even though I’ve finished this dissertation and degree, I still need you to look after me, support me, and love me. Now, I hope I will be able to do more of the same for you.

-Gary
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In the summer of 1999 I was an intern in the Office of Management and Budget in Roanoke County, Virginia. The internship was mostly busy work, but it was related to my Master’s program concentration—public budgeting and finance—so, I made the one-hour journey each way from Blacksburg to Roanoke consoled by the fact that I got to listen to National Public Radio. That summer, I was probably better informed about world events than I had ever been or have been since.

One afternoon, on my drive home, there was a story about the merger of two large nonprofit organizations in the Midwest: America’s Second Harvest Food Bank, with which I was familiar, and Foodchain, of which I had not heard. The story struck me as extremely intriguing. I knew that mergers happened in the nonprofit sector, but I had not heard of anything this large. I was used to thinking of mergers as a tool employed by powerful corporations to subsume smaller, less fortunate ones.

I reacted to the merger story by wondering what had been considered in the decision to merge. I worried that the merger might lead to reduced services to target populations for the smaller organization, Foodchain, or mission drift for Second Harvest. The possibility of writing a case analysis that concerned this merger remained an idea that I pondered for the next two years.

By 2001, I was working as a full-time Budget Analyst for Virginia Polytechnic Institute and State University (Virginia Tech). I also was beginning to see an end to my doctoral coursework and a need to commit to a dissertation topic. I was broadly interested in the management of nonprofit organizations, particularly social service providers and higher education organizations. These areas had been the focus of my
doctoral program, along with considerable reading in the expansive field of organizational theory.

The case study of the Second Harvest-Foodchain merger resurfaced as a possible dissertation topic. While reading more about nonprofit mergers, I became interested in a trend I noted—the adoption of management strategies from the for-profit sector by nonprofit managers. Personally, I felt that nonprofit organizations were so fundamentally different from for-profit businesses that there must be unintended consequences in cross-sector adoptions, but consultants were pushing nonprofits to act more like businesses. Even major philanthropic agencies were publicly supportive of these efforts. Rebecca Rimel, president of the Pew Charitable Trusts, for example, said, “[t]he field is littered with little nonprofits that are teetering on the brink of disaster. Nonprofits should be run just like for-profits. It's a new era” (Boudreau, 2000).

I felt that serious research was missing from the discussion, and I was curious about the origins and the implications of the trend towards business-like operations in nonprofits. When it came time for me to begin writing my dissertation proposal, I started with a proposal to study Second Harvest; however, I soon realized that to do the type of in depth research I was proposing, I would need to reside in Chicago for several months to be near Second Harvest’s national headquarters. It was also apparent that I would have a huge hurdle in gaining an appropriate level of access. At that point in my life I was not in a position to move to Chicago, so I began to look for other cases that would permit me to study similar phenomena.

I was immediately drawn to higher education organizations. Even though colleges and universities are, in many ways, unlike traditional social service nonprofit
organizations, they face many of the same external pressures. At my qualifying exams, I presented a research project in which I would have written a case study of a private, liberal arts college that serves only women at the undergraduate level. The school had faced financial uncertainty in recent years and was in the midst of looking for ways to stabilize its enrollment. The college was also looking for a new president who could rewrite the future of the small school without admitting men as undergraduates; I thought a change in administration and a need for a new financial model offered some interesting opportunities for documenting organizational change. Specifically, I thought that an emphasis on the financial prospects of the university might result in some unintended changes in campus culture and programming. In retrospect, I was right, and this really would have been an interesting study.

My committee recommended that I look even closer to home. They suggested that I study the changes that were occurring at my own institution. In 2001, Virginia Tech announced its intention to reorganize to better position itself to meet the goals outlined in its strategic plan and especially to achieve the university’s specific target of moving into the top 30 universities in the United States by 2010 (McNamee, 2002; Virginia Tech Board of Visitors [BOV], 2002).

Restructuring is common in the for-profit sector, but it is also fairly common in higher education organizations. This was not a clear case of employing a for-profit management technique in the nonprofit sector. In fact, as a public university, Virginia Tech is not even a traditional nonprofit organization. It has many qualities of a public agency, but shares many characteristics with nonprofits. Regardless of these deviations from my original plan, I felt that there were definitely some interesting possibilities in
studying the Virginia Tech restructuring. One really attractive feature was that I had excellent access to administrators and faculty by virtue of my roles as a staff member and a student.

The case study that follows recounts the events leading up to Virginia Tech’s restructuring, documents external conditions that might have affected that initiative, and identifies several themes that I found in my analysis of interviews with university leaders and faculty members. My history and status with the university, both as a student and as an administrator, surely have influenced my perception of the events surrounding restructuring, but I think my connection to the case has also lent a certain level of understanding that I might not have been able to attain otherwise.

-Gary Richard Kirk

10/28/2004
CHAPTER 1: INTRODUCTION

The environment in which higher education institutions operate has made decision-making by administrators both complicated and contentious (Dill, 1999). Colleges and universities, especially public ones, have had their autonomy limited and their legitimacy questioned in a new era characterized by growing distrust of government and its agencies (Altbach, 1999; Johnstone, 1999; Light, 2000). A shift, beginning in the early nineteenth century, away from a mostly elite, privately-funded system of higher education to the modern, more accessible system that is heavily dependent on public funds has placed colleges and universities under increased scrutiny (Altbach, Berdahl, and Gumport, 1999; Trow, 1974). These institutions must continually demonstrate their credibility to and seek legitimacy from their stakeholders—including government officials (Lawrence & Sharma, 2002), donors, students, and sponsors.

This “proving process” may require legitimacy-seeking behaviors designed to show efficiency, access, and quality in terms defined mostly by external perceptions (Gumport, 2000; Gumport & Chun, 1999; Humphreys & Brown, 2002). Decisions to concentrate organizational resources on activities designed to influence the opinions of external agents have the potential to lead organizations away from their core technologies and historic values (Tolbert and Zucker, 1994). Checkoway has suggested that a reordering of priorities that lowers the importance of basic social functions of colleges and universities (e.g., education, basic research, and outreach) may have substantially negative long-term effects on society (2001). Observers also have noted alternate agendas in higher education including externally derived learning objectives,
applied and corporate sponsored research, and intellectual property production (Bok, 2003; Giroux, 2001; Slaughter & Leslie, 1997).

As higher education institutions continue to respond to the demands of external constituencies, public policy makers, college and university administrators and faculty, and the general public will need to understand better the forces that influence higher education decision-making and their implications for the changing roles and missions of the institutions that comprise the field of higher education.

The case study that follows documents the restructuring of Virginia Polytechnic Institute and State University\(^1\) and the factors that led university administrators to pursue change. The analysis is based on a series of interviews with key informants associated with or affected by the restructuring process. These were supplemented by a review of university publications, public communication, and personal observations of the actions of university leaders and decision makers during the restructuring. Where appropriate, contextual information about the university’s internal and external environments has been gleaned from regional and national media.

**Research Questions**

My primary purpose in conducting this research was to document the factors that led to the university’s restructuring and some of the consequences of this particular course of action. My first research question was:

What did senior administrators perceive as the major influences that prompted the decision to restructure Virginia Tech?

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\(^1\) Virginia Polytechnic Institute and State University is commonly referred to as Virginia Tech both by its external constituencies and its own faculty, administrators, and students. As such, this is used here.
Further, I was interested in viewing the restructuring through the lens of organizational theory. Specifically, my thinking on organizations had been heavily influenced by neoinstitutional theory, and this case provided a unique opportunity to explore the theoretical construct of legitimacy and the linkage between legitimacy and administrative behavior. I postulated that the restructuring was a legitimacy-seeking behavior; thus, my second research question was:

Is organizational legitimacy, a construct from neoinstitutional theory, useful in interpreting the restructuring events and predicting changes to the future role of the university?

To understand fully the framework for my research, a familiarity with the basic tenets of neoinstitutional theory is necessary. An overview of those premises follows.

Neoinstitutional Theory

Institutional theory, as first advanced by Selznick in 1948, posited that organizations and their processes can have value beyond their utility, meaning that aside from the functional effects of management actions, there might also be social effects. This was an important departure from earlier theories because it suggested that objective or rational decision-making processes could be displaced by subjective, value-driven processes. Institutional theory held that an organization’s history, culture, and people contributed to an institutionalization process in which processes and organizations took “on a distinctive set of values” and acquired “a character structure, an identity” (Scott, 1995, p. 18). Despite the revolutionary nature of Selznick’s ideas, rational theories dominated the literature for the next two to three decades.
The neoinstitutionalists revived the basic tenets of institutional theory in the 1970s and 1980s. A seminal paper by DiMaggio and Powell (1983) brought neoinstitutional theory to the forefront of organization studies. DiMaggio and Powell contended that leaders of organizations respond to environmental threats primarily by trying to preserve their organization’s legitimacy within its field. To preserve legitimacy, leaders look to the field in order to conform with prevailing norms by making operations fit within legal or cultural frameworks, by copying what other “respected” organizations are doing, or by adopting standard practices and structures.

Neoinstitutional theory predicted that, because organizations within a field respond to similar environmental pressures, legitimacy-seeking behaviors would eventually reduce organizational diversity. DiMaggio and Powell (1983) identified three mechanisms of isomorphism that contributed to homogeneity—coercive, mimetic, and normative pressures. Briefly, coercive mechanisms resulted from cultural expectations or responsibilities to other organizations, including legal and power-based manipulation. Mimetic mechanisms were defined as imitation spurred by uncertainty, and normative mechanisms resulted from the professionalization of personnel and practices within a field (DiMaggio & Powell, 1983).

These isomorphic mechanisms act together to limit severely the number of legitimate options from which leaders and managers must choose (Scott, 1995). Legal, cultural, and professional constructions create a “powerful network of constraints” that “trap organizations in their places” (Hanson, 2001). Constrictions on management choices lead to organizational behaviors that may gain legitimacy within an institutional field but actually may decrease internal effectiveness (Tolbert & Zucker, 1994). The
rewards of legitimacy are defined as access to resources and ultimately survival, but the consequences of focusing efforts on attaining status as a legitimate organization may include divergence from historical and core technologies or values (Tolbert & Zucker, 1994). Gumport and Snydman (2002) recognized a need to examine how higher education organizations structurally respond to the paradoxical imperatives faced by the U.S. higher education system to adapt to the changing needs of society while remaining a stable social institution (p. 383).

Institutional and neoinstitutional perspectives have been linked most closely to organizations with poorly defined goals (Scott, 1995). As such, colleges and universities have proven fertile arenas for the study of the constructs and propositions of institutionalism broadly defined (Kezar, 2001). This analysis was largely framed by neoinstitutional theory and its assertions.

Prelude

Not knowing what factors led Virginia Tech to decide to restructure, it was necessary to cast a wide net in the interviews. My working view going into the research process was a perception that university administrators were under pressure from external sources—donors, funding agencies, and state officials—to reorganize in a way that fit an externally-defined image of what a national research university should look like (Aldersley, 1995; Brown, 1997; Stensaker & Norgärd, 2001); however, interviews later revealed that the main motivating factor for restructuring was a desire to organize the university in a way that would enable it to reach its goal of becoming a top 30 institution. At first, this internally-motivated behavior seemed to eliminate neoinstitutional theory as an explanation for the restructuring. So, I pursued another theoretical path to understand better what had happened at Virginia Tech. Resource dependency theory
seemed to be a better fit to explain the pursuit of the top 30 goal because of its emphasis on resource acquisition as the impetus for most management decisions. Chapter 4 explores the question of whether restructuring was a necessary response to enable pursuit of the top 30 goal by reviewing the genesis of the objective itself. I review some of the unintended consequences of the restructuring, and suggest that some unintended dysfunction may actually have hindered the university’s ability to achieve its stated goal. Chapter 6 explores the adequacy of a resource dependency theory explanation for the restructuring at Virginia Tech.

As I analyzed interview transcripts in more detail, I identified another, less publicized, response to my first research question. Scattered throughout the interviews, I noticed that there was substantial use of language that suggested a second reason for restructuring—the pursuit of a more business-like organizational structure and management style. This took several forms including discussion of cost-savings and efficiency via a “fiscal rationalization”; the framing of programs in terms of their entrepreneurialism, innovativeness, and revenue generating capacity; and an emphasis on the economic development benefits of university programs.

Language that commodified higher education was not in accordance with traditional academic values and this led me to look to the environment for cues for commodification from external stakeholders. The environment was rich with examples that appeared to define an appropriate university structure in the business-like terms that matched those being used by Virginia Tech officials. Even though university administrators were not expressly responding to external demands for restructuring, there was evidence to suggest that a need to construct a more business-like model for
university structure and operations had entered the collective conscience of Virginia Tech’s leadership.

Chapter 5 documents the rhetoric and actions that I believe influenced university administrators in their decision to restructure, and it draws attention to administrators’ use of language that I believe exemplified their essential commodification of the university’s human and intellectual capital. My perception that administrators had responded to an externally-defined ideal caused me to take review again neoinstitutional theory’s applicability to this case. Chapter 6 explores the theoretical implications of neoinstitutional theory and their relevance, especially of the construct of legitimacy, for Virginia Tech.

The two chapters that precede my analysis and conclusions, provide an overview of the development of the field of higher education and review some of the broad trends that have been identified as potential drivers for its future change (see Chapter 2). Chapter 3 outlines the events leading up to restructuring, the restructuring process, and the proposed and adopted college structures that emerged.
CHAPTER 2: NATIONAL CONTEXT

In order to more fully understand the case study that follows, it is useful to understand the development of the field of higher education in the United States. In this chapter, I trace American higher education back to its beginning, and I highlight some of the major events and movements that transformed nine small colonial colleges, serving an elite class of colonists, into an exceptional and staggeringly large system of schools, college, and universities that serves a diverse student body of over 15 million (Jamieson, Curry, & Martinez, 2001; U.S. Department of Education, 2003). This history serves as a reference for understanding Virginia Tech’s own genesis as a land-grant institution, its evolution into a comprehensive state university, and its efforts to become a leading national research university.

The chapter also includes a brief overview of some of the trends that scholars and higher education leaders in the United States have identified as having the potential to reform their institutions further. These trends have all affected operations at Virginia Tech, and they provide a national context for the events surrounding the case study and its interpretation.

Institution Building

A first generation of colleges was founded in colonial America, with the general purpose of “educating civic leaders and preparing the learned clergy” (Lucas, 1994, p105). The nine institutions that comprised that group were probably not very visible to most colonists, most of whom were focused on survival rather than the relative luxury of a formal education. The colonial colleges were the domain of society’s most privileged elites, typically white men whose families had the financial means both to pay the fees
associated with attendance and who could also continue to manage their business affairs without their sons. In colonial America, this was a small portion of the population; the oldest college, Harvard, did not graduate more than 100 students in a year until 1860 (Rudolph, 1990). In fact, so few young men attended college that the majority of colonists probably never considered the role of higher education organizations in their immature society.

Colleges became more noticeably important as relations between the colonies and England were strained by visions of independence. The impracticality of returning to Europe for a formal education meant that the colonial colleges would become the primary source of formally-educated leaders and professionals for the colonies and, later, the states and nation. The colleges succeeded in educating many men who played critical roles in American independence and in building the foundations of American government, economy, and society.

For example, the College of William and Mary in Virginia, founded in 1693 and the second oldest colonial college, counted among its early students and alumni George Washington, James Monroe, John Tyler, and Thomas Jefferson; the other eight colleges matriculated similarly recognizable students. Their association with colonial leadership brought heightened visibility for the colleges and earned them a degree of respect amongst the public.

As recognition of the importance of these institutions increased, the need to define rules concerning how they would operate in the emerging economy also became apparent. Even by the early 19th century, the relative autonomy of higher education institutions and the appropriate level of state government control were the subjects of
heated debates. The arguments peaked in New Hampshire where the state legislature had repeatedly sought to control Dartmouth College’s Board of Trustees. In 1819, the nation’s Supreme Court issued a decision (Trustees of Dartmouth College v. Woodward) guaranteeing Dartmouth independence from state government (U.S. Supreme Court, 1819). This decision established a clear distinction between public and private colleges; it also effectively ended the practice of state governments providing substantial levels of funding to private colleges, and subsequently led to the establishment of numerous public institutions with the funds that had previously gone to the private colleges (Lucas, 1994).

Several factors converged to increase both the number of colleges and the number of students attending them in post-colonial America, including the chartering of religiously-affiliated, denominational colleges; a rapid expansion into the western frontier; and a strong spirit of competition among newly formed states to establish state institutions (Rudolph, 1990). Where colonial America had barely been able to matriculate enough students to sustain the nine original American colleges, less than a decade after the end of the American Civil War there were 563 colleges (U.S. Bureau of the Census, 1976), concentrated in the east but also dispersed throughout the frontier (Lucas, 1994). College enrollment had grown to over 52,000 (U.S. Bureau of the Census, 1976). Colleges were not yet commonplace, but they were beginning to be more visible.

This is not to say that the emerging system of higher education was above reproach. In fact, criticism of individual institutions of higher education was widespread from the beginning. In 1770, a South Carolina newspaper commented on a proposal to
establish a colonial college there, “the colony ought not to support another college because 'learning would become cheap and too common, and every man would be giving his son an education’” (as quoted in Lucas, p108). Benjamin Franklin, not formally educated himself, offered a different type of criticism when he observed of students at the colonial colleges, “for want of genius, they learn little more than to carry themselves handsomely, and enter a room genteelly” (Lucas, p109). Franklin felt that the contemporary emphasis on preparing the clergy was insufficient. He proposed instead creating a broader curriculum that offered classical instruction while preparing students for business and public service. He wrote:

As to their STUDIES, it would be well if they could be taught every thing that is useful and every thing that is ornamental: But Art is long, and their Time is short. It is therefore propos’d that they learn those Things that are likely to be most useful and most ornamental. Regard being had to the several Professions for which they are intended (Franklin, 1749, p. 11).

The eventual product of his proposal was the University of Pennsylvania (founded in 1751), of which Franklin served as president for several years. Preparation for the clergy remained the focus of most colleges for many years, but Franklin’s perspective foreshadowed widespread changes in the American college curriculum.

In 1828, a faculty committee at Yale College was tasked with exploring the possibility of ending the compulsory study of ancient languages by its students and replacing those courses with others that would assist students in obtaining employment in a profession upon graduation. The committee’s report was very critical of the proposed changes, and strongly opposed the replacement of ancient languages with modern languages or the incorporation of professional coursework into the undergraduate curriculum. Based on the assertion that the college curriculum intended
to provide the *discipline* and *furniture* of the mind rather than knowledge specific to a profession, the report stated that college education was:

not designed to include *professional* studies. Our object is not to teach that which is peculiar to any one of the professions; but to lay the foundation which is common to them all. There are separate schools for medicine, law, and theology, connected with the college, as well as in various parts of the country; which are open for the reception of all who are prepared to enter upon the appropriate studies of their several professions. With these, the academical course is not intended to interfere (Yale College Faculty Committee, 1828, p. 14).

Despite continued debate concerning academic versus professional curricula, the gradual trend was to offer concentrations in specific content areas, in some cases specific professional areas, to undergraduate students. This was decried by classical faculty nationwide, but by making the curriculum appear more directly relevant to the lives of laypeople, colleges increased enrollment and imparted a more universal appreciation for their purpose over the next one-hundred years.

The credibility of colleges and universities was strengthened further with passage of the federal Morrill Land-Grant Act in 1862. The creation of land-grant institutions, whose focus was on offering agricultural and mechanical arts curricula, allowed “collegiate education [to be] broadened to include other than white males” (Geiger, 1999, p51) and to reach beyond the socioeconomic barriers that had been the reality, if not the policy, of pre-Morrill Act schools. The new utilitarian curriculum was of more relevance and interest to the general population and heightened the esteem with which colleges and universities were perceived by the broader public. Although the early success of these land-grant institutions was marred by under-prepared students and difficult finances, the perception that higher education was attainable by the working
Figures 1 and 2. Figure 1 shows the growth in the number of faculty members in American institutions of higher education from 1870 to 2000. Source: U.S. Bureau of the Census, 1976; 2002. Figure 2 shows the growth in the value of physical property at American higher education institutions from 1890 to 1990. Source: U.S. Bureau of the Census, 1976; 2002.
class helped these institutions attain new levels of public support (Berdahl, Altbach, and Gumport, 1999).

Despite the intention for land-grant institutions to make postsecondary education more widely available, the demographic profile of college enrollees did not change radically. The predominance of white men in higher education continued until 1945 when the GI Bill of Rights made a college education more affordable to military veterans and their families (Turner & Bound, 2003). After World War II, college enrollments grew to nearly 2.7 million, a 77.9% increase over levels in 1940 (U.S. Bureau of the Census, 1976).

Around the same time that the GI Bill was influencing undergraduate student enrollments, Vannevar Bush, head of the federal Office of Scientific Research and Development, issued an influential report, *Science—The Endless Frontier: A Report to the President* (Bush, 1945). This report called for massive federal investment in basic science research, citing a host of potential benefits as justification.

The pioneer spirit is still vigorous within this nation. Science offers a largely unexplored hinterland for the pioneer who has the tools for his task. The rewards of such exploration both for the Nation and the individual are great. Scientific progress is one essential key to our security as a nation, to our better health, to more jobs, to a higher standard of living, and to our cultural progress (Bush, 1945, p. 1).

Bush’s report spurred the establishment of the National Science Foundation in 1950 and significant federal funding for research at college campuses across the United States. This influx of funding gave science departments heightened prestige on campuses and helped fuel an increase in research faculty, support staff, science graduate students, and physical infrastructure at many large universities (Zemsky, 2003). (See Figures 1 and 2 above)
Figure 3. shows the number of institutions of higher education in the United States from 1870 to 2000 (Source: U.S. Department of Education, 2002).
This expansion prompted the largest increase in student enrollment ever and the most prolific period for the establishment of new colleges and universities (see Figure 3 below). The higher education literature has dubbed this time the era of massification; this period of unprecedented rapid growth (1960-1975) was fueled by the accumulation of middle class wealth in the 1950s, the civil rights movement, the women’s rights movement, and the advent of several large federal financial aid programs (Gumport, Iannozzi, Shaman, & Zemsky, 1997). Respectively, these phenomena brought to college campuses a larger percentage of traditional college-aged students; black and Hispanic students; women; and students from low-income families and part-time and intermittent learners (Gumport, et al, 1997). In 1975, five times as many students were enrolled in colleges as in 1951, and the number of colleges had grown from 1,851 in 1950 to 3,004 in 1975 (U.S. Department of Education, 2002).

This “publicization” of the higher education system that occurred during the era of massification had major implications for the way that the public viewed colleges and universities. “[I]t was during this period that higher education began to be defined as a ‘public good’ worthy of public support” (Gumport, et al, 1997, p. 12). By the late 1970s, the massification of higher education had ended. Moderate growth continued, especially in the enrollment of women (Figure 4 below), but colleges and universities were forced to consider the possibility that the relative prosperity associated with massification was over. To sustain growth in physical plant investment and research, the majority of institutions turned to tuition hikes. This strategy eroded some of the public support that higher education had earned by again making higher education appear more exclusive once again (Gumport, et al, 1997). During this time too, administrators began to focus
Figure 4. shows college student enrollment by gender from 1870 to 2000 (Source: U.S. Department of Education, 2002).
additional efforts on obtaining new resources from state legislatures, federal research agencies, private corporations, and donors. The intention of this effort was to continue growth without placing additional burden on students via tuition and fees; however, the increased reliance on external funds increased the level of influence of external groups on university operations.

The field of higher education had matured and institutional growth had reached a plateau by the early 1990s (Gumport, et al, 1997). Colleges and universities, now competing for students began to spend their resources to distinguish themselves from other institutions, and administrators adopted a vocabulary more frequently associated with a market system than a public good (Axelrod, 2002; Findsen, 2001; Toma & Morphew, 2000). Large-scale marketing campaigns and campus improvement projects were launched to appeal to students, who increasingly were described by administrators as student-customers (Morphew, 2002; Robertson, 2000).

For example, accepted dormitory room design moved from a model similar to military barracks to one of comfortable suites equipped with phones, cable television, private bathrooms, and adjoining lounges. These changes, while attractive to potential students and parents, smacked of excess to external watchdogs looking for waste on public campuses. Marketing campaigns, campus beautification projects, and gourmet dining halls fueled a perception that colleges and universities were not good stewards of taxpayer money that, in the 1990s, coincided with a broader national trend to hold organizations accountable for their use of public funds.
In the name of accountability to taxpayers, public institutions increasingly find their operations described by external agents in terms of productivity and performance (Alexander, 2000; Coy, Fischer, & Gordon, 2001; Hovey, 1999). These agents have increasingly played a direct role in the way university policies are determined. For example, Zumeta (2001) found that elected officials have significantly increased their involvement in academic policies that were previously considered off-limits to external groups.

Governmental control over public higher education can take many forms, but two primary mechanisms are the design of the higher education system and fiscal policy (Prisco, Hurley, Carton, & Richardson, 2002). Higher education systems vary by state; there are three major categories of state-level coordination of higher education (Berdahl, 1971). Consolidated governing boards are the most directly involved. These boards have the authority to make and enforce policy for all of the institutions in their states. Membership is generally comprised of political appointees, but some states (e.g., Nevada) elect members in general elections (McGuinness, 1999). Coordinating boards are a second form of state-level oversight. These boards, typically organized as state agencies, serve as a consulting group for the executive and legislative branches of state government. Some of these boards can make policy, and most can enforce it. Membership on the coordinating boards is typically made by political appointment at the executive level, and the agency is staffed by civil servants (Kerr & Gade, 1989).

Of these two types, the former is generally found in smaller state systems and the latter in large systems, although there are exceptions. The two are employed with

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2 This label is borrowed from Light (2000).
roughly equal frequency as strategies by the states. Planning agencies, the third form of state-level control, is much less common. Employed by only four states, planning agencies are also the least empowered of the three forms. These agencies conduct statewide master planning for higher education, but have no enforcement authority. Their plans are simply recommendations to policymakers. In addition to state-level coordinating authorities, many states also establish governing boards at the institution and/or system-level. These boards are usually staffed by political appointees and often have authority to approve policy within state the bounds of state and federal law.

In systems with powerful consolidated governing boards and in states with politically-appointed board members, governments have significant influence over public university policy (Mingle & Epper, 1997). In all states, the executive and legislative branches have control over the state budget, and, for most public institutions, state appropriations constitute their single most important source of revenue. Even tuition dollars are often dependent on the level of state funding since many institutions adjust tuition upward when state appropriations are inadequate. Fiscal policy is a means by which governments can direct the activity of colleges and universities; many appropriations are targeted for specific projects, programs, and initiatives and require certain deliverable outcomes. Carton (2003, p.1) has observed that:

> where higher education policy once served as a trigger for finance, finance now has become the trigger for higher education policy, signaling a multilateral shift from higher education's designation as an element of social policy to one of economic policy.

Gumport and Sporn (1999) noted that the state policy environment is an increasingly important factor in determining the ability of universities to offer even their basic functions, and others have noted that the expectation that universities maintain
current service levels despite real declines in state support is difficult for university officials to manage (Neave & Van Vught, 1994; Tien, 1999).

Governments are not the only constituents that are getting involved in university policy and agenda-setting. Alumnae/i, students, philanthropists, and sponsors have also demanded to be heard in exchange for their money. As colleges and universities become more reliant on annual fund-raising, endowments, and research funding, external groups will have increasing opportunities to affect policy through their presence on campus (Berdahl & McConnell, 1999; Harcleroad, 1999).

On some campuses, these groups are already having a significant effect. For example, at the University of Arkansas, Fayetteville, donations of over $350 million from the family of Wal-Mart tycoon, Sam Walton, have changed the institution in significant ways. The Walton family gave the gift with the requirement that it be used in ways that had the potential to influence Arkansas’ failing economy positively. Of 52 endowed professorships and chairs, 46 were directed to fields perceived as meeting the terms of the gift—agriculture, science, engineering, and business (Smith, Gearhart, & Jacobs, 2003). As an additional requirement of the gift, the university must provide annual documentation of its progress on several key indicators of success selected by the Waltons. University leaders have stated that these are not the same indicators by which they would measure their success if they were able to independently make that determination (Strout, 2004).

Sponsors of funded research may have even more influence on university activities. In the search for research funding, many universities have entered agreements with major corporations that blur the lines between academic freedom and
purchased results. Stein (2004) recently noted three trends in U.S. medical schools that highlight the influence of corporations on academic functions. They are a) hiring faculty perceived to have strong potential to secure funding from pharmaceutical companies, b) emphasizing intellectual property production in the tenure process, and c) pursuing profitable clinical trials rather than traditional research agendas. Other fields are seeing similar phenomena; a $255 million, 10-year project funded by Exxon Mobil at Stanford’s Global Climate and Energy Project has caused alarm amongst environmental groups and other faculty over a potential lack of autonomy for Stanford’s researchers (Blumenstyck, 2003).

Increasing oversight by state-level boards, state fiscal policy that dictates specified outcomes, mandated reporting requirements and earmarked donations from private philanthropists, and substantive reliance on corporate research funding are trends not isolated to higher education. They typify a broader trend in the nonprofit sector that Light has documented and termed the “watchful eye” (2000). Taxpayers and donors want to know that their money is being spent appropriately, efficiently, and effectively, but they may not agree on what those criteria mean.

Stakeholders may be swayed to a negative opinion by a personal encounter or one anecdotal news story. The assumption that both public and nonprofit organizations are too large, overly bureaucratic, and generally ineffective has been institutionalized in American society (Bergmann, 1991; Gumport & Pusser, 1995; Leslie & Rhoades, 1995; Miller and Moe, 1983).

The watchful eye movement may be related to a degradation of trust in American government institutions and elected officials that have been documented by numerous
scholars (Levi & Stoker, 2000; Patterson, 1999; Putnam, 2000; Thomas, 1998).

Declines in public trust may be fueled in part by specific events that are highlighted in media accounts (Cappella & Jamieson, 1996). No matter the level of government from which negative publicity arises, trust in all levels of government suffers. Public distrust seems to have spread to government agencies and government-related organizations too, making the public university a target for criticism.

Political figures who do not take a serious view of accounts of perceived mismanagement of public funds run the risk of being seen by their constituencies as part of the problem. The result has often been a generalized view that poor management and lack of oversight are common in universities, and this has strengthened efforts to hold the academy to standards developed by partisan groups and external administrators. Two illustrative examples of perceived mismanagement in university research activities highlight how media accounts can significantly influence public opinion about higher education and, in the latter case, can lead to substantive change in the way institutions conduct their operations.

The first incident occurred in March 1989 when two electrochemists, B. Stanley Pons of the University of Utah and Martin Fleischmann of Southampton University (England), made global headlines by announcing that they had successfully produced a fusion reaction at room temperature, producing 400% more energy than was used to start the reaction (Huizenga, 1992). International excitement regarding this research was high due to its unprecedented practical implications—low cost energy with minimal pollution from an “inexhaustible” source. This revolutionary technology never materialized, as Pons and Fleischmann were revealed over the following months to
have bypassed standard methods of verification in favor of early public disclosure intended to give their patent applications an advantage over other research groups. The administration at the University of Utah was so anxious to capitalize on the discovery made in its laboratories that it failed to do any due diligence regarding the research. This is made even more perplexing by the fact that the Vice President of Research at Utah was a trained physicist who never made any apparent effort to confirm the discovery with other scientists on campus (Huizenga, 1992).

Soon after the announcement, a panel of scientists convened by the U.S. Department of Energy “concluded that there [was] no ‘convincing evidence’ the phenomenon [of cold fusion] exists” (McDonald, 1989). Pons and Fleischmann’s credibility was questioned by both the nuclear physics and broader academic communities, and despite the fact that cold fusion research continues today, the popular press, the public, and many federal funding agencies reexamined their relationships with higher education research as a result of this incident (Huizenga, 1992).

The University of Utah’s handling of cold fusion is a striking illustration of what happens when university administrators use potential royalties to force premature publication and when universities lobby for large federal funds before the science is confirmed (Huizenga, 1992, p. xi).

The second event was a 1992 U.S. General Accounting Office (GAO) audit of federally-sponsored projects at 40 major research universities. The audit showed that 38 of the 40 universities had improperly charged indirect costs totaling over $435 million to federal project funds (Myers, 1993). Stanford University was singled out in media accounts for inappropriately charging as indirect costs: a) depreciation ($400,000) “for various items of athletic department equipment, including several racing sculls and, primarily, the yacht, Victoria” (United States General Accounting Office[US GAO], 1991,
p. 6), b) salaries and administrative expenses associated with the operation of a
university-owned shopping mall, and c) furnishing for the university President’s home,
including “cedar closet liners and cabinets, floral arrangements, sterling silverware and
other silver items” (US GAO, 1991, p. 6).

This audit and a subsequent congressional investigation resulted in the revision
of Office of Management and Budget (OMB) Circular A-21 that specified appropriate
charges for federal grants and contracts, effectively changing the way that higher
education approached research administratively (Myers, 1993). Stanford was not alone
in this seemingly unethical behavior; many of the nation’s most respected schools—
Harvard Medical School, University of California at Berkeley, and the Massachusetts
Institute of Technology—were singled out by GAO, and subsequently by the press, as
blatant offenders.

Alone, these two events probably did not transform the overall credibility of
higher education in the collective public mind; however, placed in the broader context of
decreasing trust in government and a general trend towards perceiving government as
wasteful and too large (Light, 2000), they were damaging. McGuinness suggests that
negativity towards higher education stems from the perception that colleges and
universities are:

being directed by a largely internal agenda disconnected from major societal
priorities and mismanaged in ways that make it increasingly inaccessible (1999,
p184).

Others have suggested that the perception that higher education is out-of-touch with
reality accounts for decreasing public funding of higher education.

Postsecondary education’s lowered place in the queue for public funds may
derive from a sense that the enterprise’s costs are out of control and from a
feeling that public institutions, like their private counterparts, have become not
just expensive but wasteful in pursuit of their own, as opposed to the public’s agenda (Gumport, et al, 1997, p. 23).

In spite of suggestions that higher education’s reputation has been tarnished, there is some evidence that indicates the American public continues to hold these institutions in high esteem. A 2003 study by The Chronicle of Higher Education concluded that 91% of Americans felt “that colleges and universities are one of the most valuable resources to the” United States and 67% believed that federal and state governments should spend more on higher education (Selingo, 2003). These seeming contrasts manifest themselves as an extremely unstable base of support for the field of higher education; at the same time that governments are cutting university funding, they call on them to perform additional duties and to increase enrollment to accommodate a growing pool of potential students.

**The Current Environment**

The higher education environment is extremely complex even without the pressures related to the increasing demands of the accountability movement. Identifying and predicting the impact of the litany of factors that will influence higher education policy and operations has become very important. Arthur Levine, President of Teachers College of Columbia University, identified several changes he felt would inevitably infiltrate most higher education institutions. Among these changes, Levine cited the unbundling of the teaching, research, and public service missions as particularly troubling (Levine, 2000). These three overarching functions have long served as the default mission of many American universities, especially land-grant universities (Lucas, 1994), and Levine warned that separating the three would compromise institutional
quality. He predicted that private instructional facilities would co-opt the "profitable" teaching mission of universities, leaving behind the costly work of research and public service. Additionally, he asserted that unbundling would lead to an “intellectually impoverished” (Levine, 2000, p. 3) learning environment by compromising the synergistic effects of housing these three functions in the same institution.

Levine saw a link between these three functions that, if broken, diminished the capacity of each individual function, and it is clear that most universities would be unable to support a full faculty without the revenue stream associated with teaching students who pay tuition. Nor would researchers at universities be able to maintain their research infrastructure (e.g., laboratory equipment, buildings, and administrative support staff) without sharing the associated costs with the instruction and outreach functions.

Benjamin (2003) cites globalization, increasing immigration, growing socio-economic inequality, the growth of the knowledge economy, and the dominance of multiculturalism as the five most important influences on higher education policy in the immediate future. Tierney (2003) believes that competition from for-profit educational providers, the advancement of distance learning as a mode of pedagogical delivery, the uncertain status of universities as public goods, intellectual property rights, and the health of the tenure system are the symbols of a higher education environment in flux.

Other scholars have focused on the effects that demographic, financial, and infrastructure changes will have on colleges and universities. At the same time that there are increasing numbers of people in the traditional college demographic and an

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3 Calling teaching a “profitable” mission is somewhat misleading. While many private institutions set tuition at a level that covers the cost of education, most public institutions rely on state funding of a portion of this cost. Thus, tuition alone may not make teaching profitable.
expanding group of non-traditional students seeking postsecondary educational opportunities (Dill, 1999; Gumport, et al, 1997), public tax support for higher education has decreased substantially in many states (Dill, 1999) and campus infrastructures that were built in the 1950s-1970s (Mayhew, 1979) are nearing the end of their useful lives.

Levine, Benjamin, Tierney, and others have differing views of which factors will have the most dramatic effects on colleges and universities, but the common thread among them is the perception that the beginning of the 21st century is an especially complex time to be involved in charting the future of higher education. Each environmental change these scholars have highlighted is challenging, but they are potentially paradigm-shifting when taken together (Giroux, 2001; Harvey & Buckley, 2002; Mendivil, 2002; Simsek & Louis, 1994). The sections that follow provide a brief overview of a few of these factors and an outline of the key changes that higher education will likely need to address in the coming decades.

Financial Problems

Despite widespread recognition of the positive influences higher education has on society, the state and federal governments have had an inconsistent record of financial support for higher education (McPherson & Shapiro, 2003). Much of the fluctuation in public financial support can be explained as a function of government revenue streams. When the economy is weak and tax revenues are low, higher education is perceived as expendable relative to essential services (e.g., public safety). When government revenues benefit from a strong economy, higher education often realizes significant gains in support in the form of direct appropriations and governmental grants and contracts.
Figure 5. shows fluctuations in state appropriations for higher education for the period 1990 though 2004 for the states of Florida and Virginia (Source: Palmer, 2004).
The first part of the 21st century has seen public and private colleges and universities struggle with uncertain revenue streams from their supporting governments and endowments. In fiscal year (FY) 2004, 23 states held constant or reduced appropriations for public higher education (Palmer, 2004); this was especially difficult for universities that had become accustomed to substantial growth in operating budgets during the strong economy of the late 1990s. In Florida, for example, state appropriations for higher education went from $1.41 billion in FY1993 to nearly $2.92 billion in FY 2003 (Figure 5). This represented growth of over 106% for the ten year period; however, since FY 2000, Florida’s investment in higher education has stabilized and the average change for the 5-year period is less than 0.25% (Palmer, 2004). Other states saw even more drastic fluctuations; Massachusetts appropriations for higher education declined 13% during the ten year period from FY1995 to FY2004. The four middle years (FY98-FY01) saw gains of 5% or greater, but in FY2004, Massachusetts reduced funding by nearly 21% (Figure 6). Fluctuations like these are nearly impossible to predict from year to year, and they can cause administrative nightmares for colleges attempting to match enrollment, personnel, and tuition rates to available funds.

Funding fluctuations of such magnitude in institutions with substantial investments in human resources are invariably reflected in staffing levels—through hiring freezes, furloughs, and layoffs. The tenure system minimizes the options for administrators faced with deep retrenchment and usually shifts the focus to classified staff or administrative, professional, and untenured faculty. Even when tenured faculty members are not targeted for reductions, a poor financial outlook for an institution can lead to an exodus of senior faculty to more financially-secure institutions. Iowa State
Figure 6. shows the percent change in higher education appropriations for Massachusetts for FYs 1995 to FY 2004 (Source: Palmer, 2004).
University had 1,684 full time equivalent (FTE) faculty members, but when state revenue collections failed to meet projections and the state’s legislature required significant cuts in FY 2001 and FY 2002, the university was forced to terminate 43 filled positions and eliminate an additional 193 vacant positions amongst faculty, administrators, and classified staff during the two year period (Pounds, 2001; Staff, 2000b). This brought the number of faculty down 5.2% to 1,596 by FY 2002; at the same time, enrollments between the fall semester of 1993 and 2002 increased by roughly 2,500 FTE students or 10.6% (Iowa State University Office of Institutional Research, 2002). Iowa State was not alone in this scenario.

An advertisement in 2003 placed in Virginia’s major newspapers carried a message from the presidents and chancellors of all of the state’s higher education institutions warning taxpayers that Virginia’s highly regarded colleges and universities would suffer in both quality and accessibility if the state budget crises continued. It added:

the negative consequences of the operating budget reductions on both current and future students…[includes]…almost 1,500 fewer faculty in classrooms and labs next year than there were last year and over 500 of those are full-time professors…larger and more crowded classes…[and, a lack of] resources to take more students (Virginia College and University Presidents, 2003).

In response to declining external funding, many universities have increased tuition and fees to students to make up for the reductions in their operating budgets. This approach has received mixed reviews. In the face of shrinking state support, higher education leaders are compelled to consider tuition increases (Hauptman, 1990), but significant increases in tuition and fees, without accompanying increases in financial aid
availability, will make higher education accessible only to economically privileged families (Gumport, Cappelli, Massy, Nettles, Peterson, Shavelson, & Zemsky, 2002).

A larger portion of the burden of paying for college education has gradually shifted from the public to the student. Between 1978 and 1997, revenue from state appropriations at public colleges went from 44% to 33% of operating budgets, and increasing tuitions emerged as the primary mechanism for dealing with financial shortfalls. Concurrently, forms of federal financial aid shifted from being mostly grants to mostly loans; thus, the burden for college education has shifted substantially away from the state and onto students (Gumport, et al., 2002). Highlighting the large burden on students, it was reported that the average student graduating with a bachelor’s degree from a public university in 2000 had accumulated $16,117 in debt from student loans (Berkner, Berker, Rooney, & Peter, 2002), but 1998 college graduates made an average annual salary of only $27,000 upon their graduation (Baum & Saunders, 1998). This leaves students with a heavy debt load relative to their early incomes, making the payoff for college attendance a long-term investment for most.

Some states have responded with financial aid to offset cost increases (e.g., Arizona), others have limited the ability of public institutions to raise their tuition and fees to compensate for lost state appropriations (e.g., Indiana and Virginia), and still others have left tuition and fees unchecked (e.g., Iowa) (National Association of State Universities and Land Grant Colleges [NASULGC], 2003). Between academic years (AYs) 1976-77 and 2003-04, tuition and fees increased at public universities by nearly 143% in constant (2003) dollars or 661% in current dollars (Baum & Payea, 2003). Much of the increase has occurred in the last decade; between 1993-94 and 2003-04
Figure 7. shows college costs as a percentage of household income for the bottom three quintiles of household income for the years 1976 to 2001 (Source: Baum & Payea, 2003).
Figure 8. shows college costs as a percentage of household income for the top two quintiles and the top 5% (included in the top quintile) of household income for the years 1976 to 2001 (Source: Baum & Payea, 2003).
the increase has been 47% (constant) and 85% (current), accounting for 55% and 53% respectively of the increase over the 28 year period.

Unfortunately, household income has generally not increased at the same rate as college costs, making the affordability of a college education lower for many students. This is especially true for students from lower income families. For students in the bottom fifth of American households, average college costs have increased dramatically, from 59% of household income in 1976 to 89% in 2001 (see Figure 7). The increase has been less dramatic in the next two quintiles, but it has actually decreased in the top 40% of households, where increases in household income have actually outpaced the rising cost of college (Figure 8). A trend towards increased polarization of wealth in the United States, coupled with rising tuition prices and a strong connection between earning potential and education, means that higher education is poised to “perpetuate, and even accelerate, the intergenerational transmission of wealth and status” (Johnstone, 1999, p. 349).

**Competing Entities**

With a finite amount of state funding available, public universities often find themselves competing to justify appropriations, not only with other public services (e.g., transportation), but with other universities from within their own state. University administrators spend significant amounts of time working with elected officials and legislators, explaining why their schools should receive funding (Birnbaum, 2002; Ehrenberg, 2004). Nationally, universities are also focusing resources on acquiring both federal and private support for research and development activities. This creates a very
competitive environment, even amongst schools that are actively pursuing collaborative
efforts in other areas.

Further complicating the financing of higher education, many for-profit colleges
have begun to make noticeable efforts to attract students away from traditional
programs by offering more flexible and convenient times and locations. Businesses like
the University of Phoenix are gaining enrollment, probably at the expense of traditional
higher education organizations, and may be siphoning off one of the only alternate
revenue sources that colleges have to replace waning state funding. In academic year
2002-2003, there were 6,354 higher education institutions in the United States; of these,
2,382 (37.5%) were for-profit institutions. These schools awarded 13.1% of all
associate’s degrees, 2.0% of all bachelor’s degrees, 3.0% of all master’s degrees, and
1.5% of all doctoral degrees in the United States (U.S. Department of Education, 2003).

Demographics

Three significant demographic trends must be considered when scanning the
environment in which higher education operates. First, the number of traditional-age
college students (18-24 year olds) is projected to increase by over 1.28 million during
the first decade of the 21st century (U.S. Department of Education, 2003). This will place
an additional burden on the current system of higher education, especially if no
additional funding is targeted to offset the costs associated with enrolling these students
(Lueddeke, 1999). Second, during the same period, the number of older students (25+
years old) who are seeking higher education is expected to increase by more than
520,000 (U.S. Department of Education, 2003). Not only do these nontraditional
students place an increased demand on the existing higher education infrastructure, but
Figure 10. Ethnicity of college enrollees in public, four-year institutions in 2000 (Source: U.S. Department of Education, 2003).
they also seek services that are markedly different than those sought by traditional-aged college students. These older students often have homes, families, and jobs; they usually seek flexible schedules, alternative delivery formats, and a non-residential college experience. By 2012, 39% of students are expected to be part-time.

Third, the racial and ethnic composition of the collective college student body is changing (Zusman, 1999). In 2000, both the number and proportion of minority college enrollees had increased over 1976 levels (Figures 9 and 10). On a percentage basis, the most substantial increases were found in the numbers of Hispanic and Asian students; however, the largest increase, in absolute numbers, was black students. In 2001-02, 32% of degrees at all levels in the United States were awarded to non-white students (U.S. Department of Education, 2003).

Increasing Demands

Rather than being cloistered learning environments, universities have increasingly become major economic development vehicles for the states. Not only do colleges provide a stepping stone to higher incomes for citizens (Day & Newburger, 2002), but they also directly employ hundreds or thousands of people in the areas around their campuses. A medium-sized university, like the State University of New York, Binghamton, employees over 5,000 people (Binghampton University, n.d.); while, a large research-oriented university like University of California, Los Angeles employees over 26,000 full-time equivalents (University of California, Los Angeles, n.d.).

Universities, through their research efforts, create intellectual property that can lead to spin-off companies. At the University of Michigan, 134 patent applications were generated by university affiliates in FY 2004, sparking the creation of 13 start-up
companies. In addition to new jobs for the state of Michigan, intellectual properties brought $38.7 million to the University of Michigan over the 5-year period ending with FY 2003 (University of Michigan Technology Transfer, 2004). Most major research universities have created specific off-campus facilities to promote these types of ventures. They are particularly attractive to universities because they provide direct evidence of the applicability of academic research, and they often result in various forms of profit-sharing, creating a new revenue stream for the university. Research Triangle Park in North Carolina has proved to be extremely successful as a location for faculty entrepreneurs to commercialize their research. The park has been so successful that it has been emulated across the nation on various scales.

These efforts, besides creating direct employment opportunities and new tax base for the state, also increase the human intellectual capital in the area around the universities, providing a stronger incentive for external corporations to locate their operations near the university. The universities developing these projects are often quite vocal about the benefits they feel they are bringing to their states.

Virginia Tech periodically publishes a study that estimates its economic impact on southwest Virginia, a rural and low growth region of the state. The university estimated in FY 1999 that it directly and indirectly accounted for the production of 12,000 jobs, roughly 25% of all jobs in Montgomery County, the university’s home county; it also estimated its financial impact at $1.2 billion of economic activity in the local economy and an annual value-added per household of $16,600 (NASULGC, 2001; Virginia Tech [VT] Office of University Relations, 1999). By calling attention to its integration into the local and state economies, Virginia Tech hopes to influence citizens
and state legislators to think positively about the university during the state budget development process.

By amplifying the visibility of their programs universities in the everyday life of American citizens, universities expose themselves to additional scrutiny (Berdahl & McConnell, 1999). In addition to general opposition to waste and inefficiency, the expansion of services by colleges and universities into areas that have traditionally been served by private corporations has brought new criticism from the business community and elected officials who must answer to business leaders. When the perception is that universities are simply publicly-funded research and development organizations, there is potential conflict. Slaughter and Leslie note that this model creates “capitalists from within the public sector; they are state-subsidized entrepreneurs” who can compete with private firms without the consequences of failure (1997, p. 9).

Challenges to Academic Freedom

The idea that faculty members enjoy special privileges, like subsidized entrepreneurship, is furthered by public perceptions of tenure. The process and benefits of tenure are among the most perplexing aspects of the university system to those outside of academia (O’Neill, 1999). Chemerinsky (1998) noted that the status of tenure is not paralleled in any other part of the American workplace, except in life-term judicial appointments, and it is for this reason that it has been challenged by both the public and government officials. The view that tenure protects “the lazy faculty member who no longer engages in scholarship or effective teaching” has threatened the future of a
The concept of tenure and its link to academic freedom have been explored by others (Chemerinsky, 1998; O’Neill, 1999). It is generally agreed that, although academic freedom is not dependent upon tenure, tenure is one way of protecting and preserving academic freedom (Leslie, 1998). Recently, economic realties have led to increased calls for faculty accountability measures (e.g., post-tenure review and performance reporting) and have shifted new faculty openings from tenure-track and tenure-holding to part-time and adjunct positions (Leslie, 1998). The future of the tenure system in the United States has the potential to affect dramatically the ability of colleges and universities to attract top teaching and research talent; without the human capital on which university programs are based, the quality of teaching, research, and outreach may suffer (O’Neill, 1999).

Hotbeds of Change

In light of the extremely complex and dynamic field in which most higher education organizations operate, it is not surprising that universities have become hotbeds of change. Dispelling the notion that universities are slow or incapable of change due to their size and bureaucratic structures, certain areas within universities have seen rapid and radical change. These changes are often transparent to external groups, ranging from privatization of student services (Wertz, 2000; Williams, 1996) to gradual professionalization of curricula. At an increasing rate, however, more resounding changes are being played out on campuses throughout the United States. Some of these major changes include institutional closures, mergers, programmatic
shifts, new ventures in economic development and capitalization of intellectual property, and significant restructurings. Not only do these larger changes have direct implications for the stakeholders associated with individual schools, but they may have a more dramatic effect on the landscape of American higher education through their summative influence.

Virginia Tech has been influenced both by its specific history and by the trends that have been outlined in this chapter. In the chapter that follows, I lay a foundation for determining which, if any, of these historical events or changes in the operating environment influenced Virginia Tech administrators to pursue restructuring.
CHAPTER 3: THE CASE

In the spring of 2002, Virginia Polytechnic Institute and State University embarked on a journey to transform its organizational structure from the remnants of a 1964 restructuring to a more modern structure. The university administration framed the restructuring as a way “to maximize our opportunities to achieve national and international scholarly distinction in the areas we choose to emphasize” (Cox, 2002a). Provost McNamee suggested that the guiding principles for restructuring should come from the university’s just completed strategic plan and its ultimate goal of moving Virginia Tech into the top 30 research universities in the United States.

Restructuring is straightforward conceptually, but developing and implementing a restructuring plan in the context of the broader national and state level higher education environment proved to be a challenge for Virginia Tech’s administrators and faculty. Further, the politics of departmental alignments and the perceptions of inequities in the process and its results caused some problems within the university community. In this chapter, I briefly review the history of the university, document relevant events that occurred prior to restructuring, and summarize the process and the structures that resulted from the restructuring initiative. This contextual information will set the stage for an analysis of the events surrounding Virginia Tech’s restructuring effort.

Ut Prosim

In 1872, Virginia Agricultural and Mechanical College was established in Blacksburg using a portion of the proceeds from the sale of federal land authorized by the Morrill Land-Grant College Act of 1862. Guided by the spirit of the Morrill Act, the school’s newly appointed Board of Visitors wrote that the purpose of the college was “to
further the education of the industrial class...those who handled the tools or worked in the fields, mines, or workshops” (Kinnear, 1972, p. 55). The Clerk of the Board of Visitors, William Ruffner, believed that the new college should not simply replicate the curriculum at the University of Virginia or Virginia Military Institute, but should “have as its ultimate object the immediate utilization of science for the development of the material resources of the country” (Kinnear, 1972, p. 55). The Morrill Act included language that required the development of military studies at the colleges established under its authority (Hytche, 1992); this would eventually become an important dictate in the shaping of the college, but the Board of Visitors gave this only marginal attention in the initial development of the organization and curriculum (Kinnear, 1972).

The early years of the Virginia Agricultural and Mechanical College were tumultuous, defined by inconsistent leadership, susceptibility to state-level political maneuvering, debate over curriculum and organizational structure, and controversy over the handling of state and federal funds (Kinnear, 1972; Wallenstein & Kennelly, 2001). The establishment of the Agricultural Experiment Station by the Commonwealth of Virginia in 1886, the influx of agricultural research funding from the federal Hatch Act beginning in 1887, and the Smith-Lever Act’s support for agricultural extension in 1917 combined to reinforce the college’s affinity with agricultural science and practice and cemented the underlying public service mission of the land-grant institution. The college motto, Ut prosim, translated as “That I May Serve” was adopted in 1896, and has carried through to the present day as a guiding principle for the modern university.

In 1964, the Virginia Polytechnic Institute divided into colleges: Engineering, Agriculture, Business, Home Economics, Architecture, and Arts and Sciences, and in
1970 the state legislature approved the name Virginia Polytechnic Institute and State University to recognize both the mechanical and agricultural roots of the institution and its growing, comprehensive curriculum (Wallenstein & Kennelly, 2001). After three name changes, substantial growth in its physical plant and student body, a fist fight between the college president and the professor of military tactics, and a succession of presidents whose tenures varied between two weeks and sixteen years, the university emerged in something resembling its modern form.

**Virginia Tech in the 21st Century**

In 1882, enrollment at the Virginia Agricultural and Mechanical College dipped to below 50 students (Wallenstein & Kennelly, 2001). By contrast, Virginia Tech enrolled a total of over 28,000 students in 2002—21,500 undergraduates and 6,600 graduate and professional students. Other changes are equally astonishing; from a faculty of three in 1872, Virginia Tech has grown to include, in 2002, almost 1,300 full-time instructional faculty and over 5,300 additional research faculty, administrators, and staff members (VT Office of University Relations, n.d.). The physical plant now encompasses 659 buildings (more than 100 major buildings) with over 8.5 million square feet of space (Virginia Tech Capital Design and Construction, n.d.), and the 2,600 acre main campus is supplemented by a 1,700 acre research farm. There are seven associated extended campus sites, a campus in Lugano, Switzerland, an equine medical facility in Leesburg, Virginia, twelve agricultural research stations, four 4-H centers, and affiliated cooperative extension offices in every county in the state (VT Office of University Relations, n.d.).
Despite the Board of Visitors’ intentional neglect of the military component of the curriculum in 1872, by the mid-1880s Virginia Agricultural and Mechanical College had incorporated compulsory study of military tactics and had modeled student life around military structures and hierarchies. These changes were said to be needed to address student behavioral problems, but were likely heavily influenced by post-Civil War Virginia’s military history and the military training of the majority of the faculty members. Borrowing from alma maters like Virginia Military Institute and West Point, key faculty implemented a military style that required students to serve in what would eventually be called the Corps of Cadets and created a very rigid program of student life. These requirements persevered until a 1924 policy allowed upperclassmen to opt out of the Corps and a 1964 policy made corps service optional for all students. In 2000, participation in the Corps was at its lowest level in recent history, but recent figures indicate that the Corps may be regaining its prominence at Virginia Tech. The Corps had dropped to 432 students by 1993, but had regained its stature by 2002 with a 70% increase over 1993 levels to 734 cadets (Lovegrove, n.d.).

In 2000, the university had 8 colleges (see Figure 11) that closely approximated its structure in 1964. Changes to the 1964 structure included the addition of a College of Natural Resources and a College of Veterinary Medicine. The other notable change was the conversion of the College of Home Economics to the College of Human Resources and Education, which had been created in 1995 amid considerable controversy, by combining

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4 The College of Veterinary Medicine was a collaborative effort between the states of Virginia and Maryland, but the physical campus was located in Blacksburg.
Figure 11. shows Virginia Tech’s academic organizational structure for the period immediately preceding the restructuring.
the College of Education and the College of Human Resources. Finally, Research and Graduate Studies operated as a hybrid academic-administrative unit.

Virginia Tech had built a strong academic reputation in its foundational subjects—agriculture and engineering. In fact, Virginia Tech was cited as one of the top ten schools in the United States in terms of money spent on agricultural research for the years 1999-2001 (MacInnis, 2002; MacInnis, 2003). The College of Engineering was consistently recognized as having excellent undergraduate and graduate programs; the Pamplin College of Business was cited as being a strong undergraduate program; and numerous other programs in the natural and social sciences were lauded by perennial rankings such as U.S. News (Crumbley, 2001; Crumbley, 2002; Crumbley, 2003; Crumbley & Ho, 2001; Nutter, 1999). In addition to these areas, the university began to earn national and international recognition for its programs in architecture, design, clinical psychology, and its Master of Business Administration degree (Elliott, 2002a; Ho, 2002; Newbill, 2003b; Staff, 2001).

Overall, the university had a reputation for being a good quality public institution that was affordable relative to institutions of similar scope and quality (Knestout, 2003). Virginia Tech was consistently among the cheapest schools for total costs in its peer group and amongst Virginia institutions; it also compared favorably to the top 30 public research institutions (VT BOV, 2004a). Effective public relations regarding Virginia Tech’s quality and value were partially credited with a significant increase in the number of applications for undergraduate admissions. The number of applications jumped sharply in 2000, of which the university president said:

We are experiencing a wonderful synergy with so many things coming together at the same time. Certainly our football success is a part, but also our emphasis
on technology across the curriculum, the popularity of our computer-related majors, and our jump in national rankings (Staff, 2000a).

As the number of applicants increased, the quality of incoming freshman, in terms of traditional measures like SAT scores and high school GPA, also increased (VT Institutional Research, 2004). Despite the attention Virginia Tech’s academic programs were receiving, many observers noted that the 16% jump in applications occurred after Virginia Tech garnered national attention by playing for the national championship in college football in 1999-2000 (Weiberg, 2000).

New Leadership

Dr. Paul Torgersen, Virginia Tech’s president since 1993, announced in February 1999 his intent to retire effective at the end of that calendar year. Torgersen, former Dean of the College of Engineering and twice an interim president for the university, had overseen Virginia Tech during a time of growth and increasing prominence in the national higher education arena, and he left with a relatively strong reputation for having helped the university reach its potential in many areas. Perhaps Torgersen’s most enduring legacy was his timely contribution to building Virginia Tech as a national leader in the ripe field of information technology, but he is also remembered, by both alumni and faculty, as a friendly man who would introduce himself as he strolled across campus and as the consummate teacher, choosing to teach at least one course per semester throughout his presidency (personal interview). It was widely perceived that Torgersen’s replacement would inherit an organization functioning better than it ever had in the past (personal interview).

After a national search that was purported to have garnered a pool of well-qualified candidates (Staff, 1999), including current university presidents, the Board of
Visitors appointed an internal candidate, Dr. Charles W. Steger, to the presidency effective January 2000. James E. Turner, rector of the board said:

Charles Steger clearly impressed the board with his credentials and track record of success. He owns a wealth of experience as a teacher, researcher, and administrator. Moreover, he has extensive international experience and a long history of state and federal government engagement. Charles was the unanimous choice of the board. He has the energy, experience, and vision to launch Virginia Tech into the top tier of the nation’s finest universities (Hincker, 1999).

Steger entered office with substantial support from alumnae/i who had worked with him as the Vice President for University Development and University Relations, where he led the university’s largest ever capital campaign of $337 million (Hincker, 1999).

During the first few months of Steger’s presidency, Virginia Tech continued to gather momentum. At his inauguration in April 2000, Steger first spoke about the need for Virginia Tech to change to meet the demands of a society undergoing tremendous change:

Society has been well served by both the university’s resistance to change and by its capacity to foster change. And while this may first appear to be a contradiction, it is not a contradiction at all. The key to success is changing the right things at the right time in order to preserve those essentials that define us…Institutions of higher education must find their place in the new economic order (Steger, 2000).

He also invoked Virginia Tech’s land-grant history as an apparent touchstone for the process of change:

Most essentially, Virginia Tech is a public, land-grant university. It is a role we embrace with enthusiasm. Since their early beginnings, more than a century ago, land-grant colleges have been change agents for expanded personal opportunity and social or community development. We must not only generate and disseminate new knowledge but also engage the problems which face society today. Virginia Tech is and will be a university that puts knowledge to work (Steger, 2000).
Finally, Steger officially unveiled the goal that he envisioned for the university and that he hoped would unify all of the university’s constituents:

Virginia Tech can look to the future with optimism…we should as an academic community embrace the goal of reaching a new level among research universities.

What does this goal imply for us? I believe that conventional measures, such as total expenditures on research and development, will continue to be important. But other measures will become more significant as well. To suggest just a few: our contributions to economic development and other forms of outreach; our national and international collaborations with other universities and with the private sector; our ability to innovate in information and communication technology, and thus to connect ourselves with the world.

If we look concretely at the institutions with whom we would like to be compared in 10 years, we must increase significantly our level of sponsored research, and we must also increase our scholarly productivity across the board. And to accomplish the latter goal, we must substantially increase our support for our university libraries—the heart of the scholarly enterprise.

Today, I propose that we accept the challenge to place Virginia Tech in the top 30 research universities in America by the year 2010 (Steger, 2000).

The “top 30 goal,” as it came to be called, became the rallying cry of the Steger administration. Although the goal had been talked about for several months on campus, the formal announcement was followed by an initial period during which morale seemed to be very high amongst faculty and administrators (personal observation).

The first major administrative change came at the executive level with the resignation of Provost Peggy Meszaros. Meszaros indicated that she would resign her post of five years to return to teaching; it was unclear publicly whether this move was initiated by Steger or Meszaros, but it was the first of many resignations and retirements that would shape the early years of Steger’s presidency.

In announcing the provost search committee’s criteria for a new chief academic officer, chair of the committee and Dean of the College of Veterinary Medicine, Dr. Peter Eyre, said:
We’re looking for a very strong academic leader and somebody who has exemplary scholarly credentials, as well as a person who has had major administrative leadership experience. The two somehow have to be married (Lovegrove, 2000).

President Steger elaborated that Meszaros’s replacement would be someone uniquely qualified to move the university towards its top 30 goal.

Dr. James Bohland, a professor of urban affairs and planning specializing in health policy, was appointed interim provost by Steger. It soon became apparent that Bohland had been selected with the goal of helping Virginia Tech overcome the disadvantage of not having a human medical facility, a deficit university administrators universally perceived as the biggest barrier to attaining NIH and NSF funding that could propel the university into the upper echelons of research universities (personal interviews). In fact, even after a permanent provost was selected, Dr. Bohland remained on the executive staff in the newly created position of Senior Fellow for Biomedical, Bioengineering, and Health Projects; his primary responsibility in this role was to continue to advance Virginia Tech in health and medical related research and funding.

The “No Medical School” Dilemma

Construction of a medical school at Virginia Tech was highly unlikely. The university could not fund the start-up of a medical school, and there was no chance of state-level support for a medical school. Virginia already had two extensive public medical campuses, one in Charlottesville (University of Virginia) and one in Richmond (Virginia Commonwealth University), and the state legislature’s leaders had made it clear in previous discussions that program duplication would not be looked upon favorably. So, Virginia Tech sought to identify its existing areas of strength that would allow for the development of partnerships in the health, medical, and biosciences.
In November of 1999, Virginia Tech announced a partnership with the University of Virginia and the Carilion Health System to develop an institute that would support research with the potential to produce marketable health sciences products and spin-off companies. Carilion, the nonprofit operator of numerous medical facilities in western Virginia, invested $20 million in the institute, while the two universities offered intellectual capital and agreed to participate in $10 million of additional fund raising to allow the institute to become self-supporting. Minnis Ridenour, Virginia Tech’s Executive Vice President, was instrumental in bringing this partnership, the Carilion Biomedical Institute, to fruition (Hincker, 2001b).

The Carilion partnership served as a model as Virginia Tech looked for other institutional linkages in the lucrative health sciences research arena. Relatively quickly, negotiations began with Wake Forest University to create a joint School of Biomedical Engineering that would capitalize on Virginia Tech’s strengths in engineering and Wake Forest’s strengths in the health sciences. Bohland described the joint venture as:

…ideal because we not only have complementary programs but also complementary scientific equipment and laboratories. Research equipment is so very costly and this partnership enables great economies of scale. Wake Forest has some of the latest image technologies…that Virginia Tech could not afford to purchase. To have those technologies available to our biomedical research will greatly enhance our competitiveness in securing biomedical research funds (Hincker, 2001c).

Additional collaborative arrangements continue to be negotiated, including several opportunities under development with Johns Hopkins University, the largest recipient of health-related federal funding and the holder of first place in the National Science Foundation’s ranking of university research expenditures.
An interesting development in Virginia Tech’s struggle to become a player in the health sciences occurred in August 2001 when the private Harvey W. Peters Foundation announced that it would open a new school of osteopathic medicine in Virginia Tech’s Corporate Research Center adjacent to the main campus (Sturgeon, 2001; Tornatzky, Waugaman, & Gray, 2002). The location of the Edward Via Virginia School of Osteopathic Medicine was not a coincidence. John G. Rocovich, Jr., was advisor to the late Marion Bradley Via who had been instrumental in the establishment of the Peters Foundation; he also happened to be a member of Virginia Tech’s Board of Visitors, chair of the Peters Foundation, and the newly appointed chair of the board at the Osteopathic School.

Historically, osteopathic medical colleges have focused on the production of clinical physicians rather than research, so many proclaimed the location of the college as no more beneficial than any other tenant in the Corporate Research Center (personal interview). Via School officials were more optimistic and predicted that strong collaborative efforts between the two schools could boost Virginia Tech’s national prominence in health-related research. Interestingly, many of the initial faculty members at the Osteopathic School came from Virginia Tech’s College of Veterinary Medicine, which had developed several human disease-related research centers in previous years, and a considerable share of the student and faculty services at the Via School were provided via contract by Virginia Tech. The building that the osteopathic college now occupies was built by the Virginia Tech Foundation, and the relationship between the two schools was established such that funded research at Via would show up on Virginia Tech’s financial statements and indirect cost recoveries would accrue to
Virginia Tech rather than Via (Miller, 2003a). The Via School’s official crest was even decorated with the same orange and maroon that were Virginia Tech’s official colors (Miller, 2003a). Rocovich was quoted as saying

> I think we’ve got the best of both worlds. We can be very helpful to Virginia Tech ... and we can be a lot more flexible and move a lot more quickly as a private school (Miller, 2003a).

The health sciences ventures were not all collaborative. Virginia Tech had also expended considerable resources in July 2000 to initiate the Virginia Bioinformatics Institute (VBI). Bioinformatics was a rapidly growing field, and it could take advantage of some of the university’s strengths in computer science, computational biology, and veterinary medicine. By early 2004, VBI had brought in roughly $42 million in external funding (Miller, 2004a), and several additional large grants were announced in the months that followed.

**The Chief Academic Officer**

As Virginia Tech worked to carve out its niche in the medical research community, Dr. Mark McNamee was named as the university’s new provost beginning in August 2000. McNamee came from the University of California at Davis, where he had served as the Dean of the Division of Biological Sciences for seven years (Hincker, 2001a). He had been instrumental in revamping the biological sciences at Davis by merging departments and capitalizing on the research strengths of his units (Hincker, 2001a). The choice of a biologically-focused academic was not unexpected; in fact, two of the three finalists had a history of conducting medically-related research prior to their administrative posts. Peter Eyre commented that the search committee he chaired
“like[d] the idea that [McNamee] has maintained his academic bearings as both teacher
and scholar, even while juggling the demands of leadership” (Hincker, 2001a).

President Steger added:

We were impressed with [his] understanding of the unique role for the nation’s
land-grant research universities...[and] appreciation for the role of the arts and
humanities in sustaining the academic vigor of a robust modern university
(Hincker, 2001a).

The qualities Steger chose to highlight in this statement were surprising
considering the background McNamee brought to the position. The stated focus of the
search was to find a candidate who could position Virginia Tech to reach its top 30 goal
(Lovegrove, 2000), and McNamee’s strong credentials in the sciences would have been
evidence that Virginia Tech was serious about that goal. The comment concerning
McNamee’s commitment to the arts and humanities, although apparently not the social
sciences, may have been designed to soften the blow to arts and humanities faculty
members who felt the selection would leave them under-appreciated.

Despite his newly affirmed commitment to the arts and humanities, the new
provost seemed much more focused on Virginia Tech’s traditional strengths when
speaking of his new responsibilities:

I am thrilled by the opportunity to work at Virginia Tech. I am impressed by the
quality of the programs as well as the direction the university is heading. The
university has or is developing leadership in so many areas that have
tremendous potential such as information technology, biotechnology, many
engineering disciplines, and many other areas across a broad range of
disciplines. Tech seems to be in the right place as [sic] the right time and can
take advantage of those dynamics (Hincker, 2001a).

The Strategic Plan

Concurrent with the development of partnerships and programs in the health
sciences and the search for a Provost, Virginia Tech undertook a strategic planning
process. The previous strategic plan had been developed under President Torgersen and Provost Meszaros and covered the period from 1996-2001; the most widely cited product of the plan was a set of “cross-cutting initiatives” that were designed to develop “a core of world-class quality programs” at Virginia Tech (Doss, 2000). These areas were: Biosciences and Biotechnology; Computing, Information, and Communications Technology; Environmental Sciences and Energy Systems; Food, Nutrition, and Health; Learning Communities; Materials; and Transportation.

The new strategic planning process was conducted by a committee comprised of the deans of the colleges and the vice presidents of the administrative areas; Dr. Rosemary Blieszner was appointed to the committee as the university director of strategic planning. Dr. Blieszner, a professor in the department of gerontology and family studies, was selected because Steger perceived that she had “impressed her colleagues on various governance appointments” (Hincker, 2000). Blieszner’s job was to facilitate and record the strategic planning process for the university.

The result of the strategic planning process was a plan that addressed 4 major areas, in the following order—Research and Scholarship, Graduate Education, Undergraduate Education, and Outreach—within the context of the overarching university goal that states “Virginia Tech will be ranked among the top 30 universities by 2010” (Virginia Tech, n.d.b). If moving research and scholarship to the first position in the plan was an indication that it was most important to the school, then the presence of a research orientation in the other areas strengthened it even further. The language and placement of the undergraduate instruction and outreach components of the plan may have implied that they were secondary concerns for the strategic planners. For
example, the Graduate Education goal appeared to be framed in terms of its ability to contribute to university research. It read, “we will increase the quality of graduate programs and the number of students completing graduate degrees with a research component at Virginia Tech” (Virginia Tech, n.d.d).

During the strategic planning process, the university rewrote its mission statement and spelled out the core values that would, in theory, provide guidance in decision-making about the future of the university. The most notable changes in the university mission statement from its early version are related to the replacement of extension as one of the three main foci of the university with outreach, a broader, more encompassing term. The new mission statement also emphasized the importance of applied knowledge and promoted community development and economic competitiveness. Absent from the newer statement was an explicit statement of dedication to equal access as evidenced by dropping the phrase, “[i]ts scholastic programs are accessible to all who demonstrate academic merit to gain entrance” (Virginia Tech, n.d.a). Finally, the newer statement did not specify the fields in which Virginia Tech would generate and disseminate knowledge; where the earlier plan listed “in the humanities, arts, social sciences, scientific, and professional disciplines”, the new mission was vague.

In addition to the mission statement, the university also wrote that:

[the core values of Virginia Polytechnic Institute and State University are freedom of inquiry, personal integrity, mutual respect, promoting personal and professional growth, fostering a lifelong commitment to learning, and contributing to society (Virginia Tech, n.d.a).]

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5 The Virginia Tech mission statements before and after the 2001 revision are included in their entirety in Appendix B.
Despite this statement of core values, Virginia Tech experienced several events during the strategic planning and restructuring processes that brought into question the university’s commitment to upholding them. First, the Virginia Tech campus police seized the computer of the director of the women’s studies program. Martha McCaughey had received an e-mail from a group claiming responsibility for spray painting anti-rape, anti-violence, and messages on campus buildings and signs (Miller, 2002a). Campus police questioned her about the e-mail, she said she deleted it, and then her computer was seized without her consent or presence. Some members of the campus community were surprised at the lack of respect for the police showed for Professor McCaughey, but the official word from Virginia Tech spokesman Larry Hincker was, “That machine doesn't belong to you and the university has the right to the information on that computer” (Miller, 2002b).

Very soon afterwards, the Board of Visitors overturned what appeared to be a standard faculty appointment. Dr. Shelli Fowler, formerly a tenured faculty member at Washington State University, was appointed to Virginia Tech’s department of English when she moved to Blacksburg with her partner, the new Dean of the Graduate School, Karen DePauw. The Board of Visitor’s disapproval was unprecedented, and, even though the publicly disclosed reason for the denial was on the grounds of budget stress (Bartlett, 2002), there was considerable media and campus discussion that suspected the Board of Visitors had based its decision on Fowler’s sexual orientation.

Less than a year later, the Board of Visitors prompted controversy again when it voted to stop using race and gender as a factor in all admissions, financial aid, and personnel processes. The board was acting on advice from state Attorney General,
Jerry Kilgore whose office had advised college visitors to consider ending such programs. Assistant Attorney General David Johnson wrote:

As a matter of constitutional law—remediation of former discriminatory policies and practices could no longer justify race-conscious decision making in higher education in Virginia (Johnson, 2003).

At the same meeting the Board reviewed a proposal to limit the ability of certain groups to convene on campus. The policy stated that:

No person, persons, or organizations will be allowed to meet on campus…that…advocate or have participated in illegal acts of domestic violence and/or terrorism (VT BOV, 2003a).

The policy required that all speakers and meetings would need to obtain approval from the president’s office by submitting a request at least 30 days prior to the event. The measure was approved unanimously.

Both the affirmative action and campus speaker policies were rescinded by the board in a special meeting the following month. The affirmative action policy was overturned in the face of considerable controversy on and off-campus. There was also pressure from some to wait until the summer when the United States Supreme Court was expected to rule on the constitutionality of affirmative action programs at the University of Michigan. The campus speaker policy was found to be unconstitutional in an advisory opinion provided by the Attorney General’s Office (Hurd, 2003).

Administrative Turnover

One of the reasons that the president and senior administration described the restructuring period as a unique opportunity for change was due to the nearly complete turnover of academic deans and similar changes in administrative leadership. The hiring of the new provost has already been described, but a number of other leaders left the
university during the period from 2000 to 2004. These leadership changes included the filling of President Steger’s former position as Vice President for University Development and University Relations with a development official from the University of Virginia (July 2000) and the appointment of two Virginia Tech employees to new roles—Associate Vice President (Lenwood McCoy, the retired university Controller) and Vice Provost for Special Initiatives (Leonard Ferrari, department head in computer and electrical engineering) (September 2000) (Ashby, 2000).

Soon after Provost McNamee arrived in Blacksburg (August 2001), he confronted the pending loss of three deans. Janet Johnson, Dean of the College of Human Resources and Education announced in October 2001 that she would retire the following summer. That same month William Stephenson, Dean of the College of Engineering, quietly stepped down, at first on a temporary basis, but eventually permanently, for health reasons.

In November 2001, Dean of the College of Arts and Sciences, Robert Bates, announced that he had accepted the position of provost at Washington State University. Bates had been at Virginia Tech for over 31 years and was the dean of its largest college in terms of faculty (625) and students (8,000). Bates had been active in promoting collaborative efforts in his college and in promoting diversity in faculty and student bodies. He had also helped steer the college through periods of significant budget reductions and restructuring (Harris, 2001). Before the announcement of his departure, Bates had been active in seeking to split the College of Arts and Sciences into smaller sub-units that would facilitate administrative processes. He also had been a candidate for the position of provost.
These changes alone caused considerable upheaval in the academic administration. Further threatening stability, the Dean of the College of Agriculture and Life Sciences, Andrew Swiger announced less than a year later that he would end his tenure as dean and retire effective January 2003. Swiger’s announcement seemed to set off another round of departures. The Dean of the College of Veterinary Medicine, Peter Eyre, announced in October 2003 he would retire for health reasons, and Greg Brown, Dean of the College of Natural Resources, announced he would retire in June 2004. After this improbable string of separations, the deans of only two colleges, Business (Richard Sorensen, 1982) and Architecture and Urban Studies (Paul Knox, 1997), and the dean of the university libraries, Eileen Hitchingham (1995) remained from prior to McNamee’s arrival.

The administrative side of the university experienced major changes as well; Leonard Peters, Vice President for Research and Graduate Studies left for a new position effective April 1, 2003. Raymond Smoot, the Vice President for Administration and University Treasurer, was reassigned to serve as Executive Vice President of the Virginia Tech Foundation in April 2003. One of the most influential members of the Virginia Tech community announced in October 2003 that he would leave at the end of the fiscal year (June 2004). Minnis Ridenour, a thirty-year veteran of Virginia Tech’s business and finance operations who had most recently served as Chief Operating Officer and Executive Vice President, was extremely involved in both state-level budgeting and financial policy and in Virginia Tech’s internal operations. President Steger said of Ridenour’s retirement:

It is hard to convey the tremendous impact Minnis has had on Virginia Tech and all of Virginia higher education. With very good reason, he is highly respected by
state officials and his colleagues throughout the country. We are very sorry to see Minnis begin his trek toward retirement, but our students can access his wealth of knowledge from within the classroom for some time in the future (Hincker, 2003a).

Fortunately, the university was able to fill its growing list of vacancies with relative speed. Karen DePauw was appointed as the first permanent Dean of the Graduate School (April 2002), a position created when the Vice President of Research and Graduate Studies was split into an administrative position (Vice President for Research) and an academic position (Vice Provost for Graduate Studies and Dean of the Graduate School). DePauw took over the position from Acting Dean Joseph Merola who was immediately appointed as the university’s Senior Fellow for Restructuring and charged with facilitating the restructuring process.

In 2003 and 2004, the remaining deanships were filled. These hires included Hassan Aref as Dean of the College of Engineering (April 2003), Sharon Quesenberry as Dean of the College of Agriculture and Life Sciences (May 2003), Gerhardt Schürig as Dean of the College of Veterinary Medicine, and J. Michael Kelley as Dean of the College of Natural Resources (September 2004). The new deans had all moved through the academic administrator ranks in traditional form; they had been promoted from department head or dean positions at other national universities. Schürig was the lone successful internal hire; he had served as a department head and interim dean at Virginia Tech.

Administrative positions were also filled; Kurt Krause was hired as the Vice President for Business Affairs (November 2003), a position created through the realignment of the business and financial operations of the university and the vacant Vice President of Administration position. Krause was an alumnus of Virginia Tech and
had been involved in some university activities, but his work experience was in the hospitality industry and the U.S. Department of Homeland Security. Despite his lack of experience in higher education, Virginia Tech announced it had hired “an executive with broad-based knowledge… [and] extensive management and operations experience in complex organizations (Hincker, 2003b).

In April 2004, Virginia Tech announced two more administrative hires, both of whom had the potential to be important to the top 30 goal and the future of the institution. First, James Hyatt, the Chief Financial Officer of the University of California, Berkeley, was announced as the new Executive Vice President and Chief Operating Officer. Steger said,

[w]e were very impressed with Jim’s breadth in and understanding of higher-education financial management. His work record and publications are highly respected in the profession (Hincker, 2004).

The second hire was Bradley Fenwick as Virginia Tech’s Vice President for Research; Fenwick’s most recent experience was as the Chief Science Advisor and Chief Scientist for Research, Education, and Economics at the U.S. Department of Agriculture (USDA). His expertise was in the field of infectious disease pathobiology. Fenwick’s ties to the federal research community made him an attractive candidate for Virginia Tech. Provost McNamee said:

Dr. Fenwick brings to Virginia Tech a wealth of knowledge about the research enterprise. His extensive experience with federal funding agencies and as a prolific researcher at a university—and particularly his understanding of research appropriations, budgets, and competitive processes—will serve the university well as we continue working toward our goal to become one of the nation’s leading research institutions (Cox, 2004).

The extremely high number of personnel changes on campus during this period gave the president and provost an opportunity to put in place a group of senior leaders
who would support their vision for Virginia Tech, represented primarily by Steger’s top 30 goal. There were very few individuals who had served in the previous administration who remained in top leadership roles left on campus.

The Restructuring

As Provost McNamee completed his first six months at the university and as the strategic planning process came to a close, senior university administrators announced that they would seek “to maximize our opportunities to achieve national and international scholarly distinction in the areas we choose to emphasize as part of our strategic plan” (Cox, 2002a). The announcement in March 2002 laid the groundwork for an organizational restructuring and McNamee and other senior officials justified its timing by citing:

> [v]acancies in three college dean positions, including Arts and Sciences, and the need to use resources efficiently and creatively as the university continues its push to become a top-30 institution in the face of state budget cuts (Cox, 2002a).

The official restructuring announcement had been preceded by numerous indications that major change initiatives would occur. Indeed, discussions had already occurred widely within the College of Arts and Sciences that were predicated on the view that it would be subdivided. McNamee’s more encompassing announcement opened the possibility that other colleges would be included in the restructuring.

The university’s most recent experience with restructuring had occurred in 1995 when the previous president, Paul Torgersen, had merged the Colleges of Education and Human Resources. This merger had caused considerable objection and hurt feelings amongst the faculty and the alumni of the two colleges (Blake, 1995). The perception amongst constituent groups was that the university did not value them
(personal interview). So, the new talk of merger and restructuring brought back to the surface these fairly recent wounds (personal interview).

The Budget Crisis

The Commonwealth of Virginia was beginning to feel the effects of a national economic downturn during the beginning of 2002. When the restructuring was announced university officials were careful to distinguish between restructuring to meet strategic goals and any initiatives designed to cut costs to meet state mandates. As the restructuring process progressed, however, it became clear that the magnitude of the budget cuts was going to be much greater than originally anticipated. In fact, the university’s fiscal year (FY) 2003 budget was hit with a $61.5 million reduction in state appropriations. As president Steger pointed out in his communications to the university, this was equivalent to eliminating the entire base budget for the College of Arts and Sciences (Steger, 2002a).

The New Plan

As the restructuring progressed, several iterations of proposed structures developed. The first featured a consortium model where a newly formed College of Biological, Mathematical and Physical Sciences would partner with the existing Colleges of Agriculture and Life Sciences, Natural Resources, and Veterinary Medicine to gain prominence primarily in the health-related fields. A second consortium would have included a new College of Arts, Humanities, and Social Sciences and the existing College of Human Resources and Education. This model would also have kept the Colleges of Architecture and Urban Studies, Business, and Engineering. As an additional organizational structure, this model featured several Schools under the
colleges. A School of Computer Science and Informational Technology aligned with the new College of Biological, Mathematical, and Physical Sciences, a School of Education aligned with the College of Human Resources and Education, and two existing schools—the School for Public and International Affairs aligned with Architecture and Urban Studies and the School of the Arts aligned with the College of Arts, Humanities, and Social Sciences—were intended to further facilitate interdisciplinary and intercollegiate collaborations.

The structure that was eventually adopted and was officially implemented on July 1, 2003 was slightly different. The consortium approach was deemphasized, and the College of Science took the place of the College of Biological, Mathematical, and Physical Sciences. The name change reflected the addition of the departments of economics and psychology to the college. Lay Nam Chang was appointed as the dean of the new college; he had served as interim dean of the College of Arts and Sciences after Robert Bates departed for Washington State University. In this role,

Chang initiated discussions that eventually led to the definition of the goals of two colleges emerging from the College of Arts and Sciences; managed the two rounds of budget reductions without losing sight of the possibilities for these two colleges; maintained the momentum in activities promoting diversity; initiated several cross-college collaborations in critical technologies, life sciences, arts, humanities, and social sciences; and established regional alumni advisory groups for the two colleges (Cox, 2003).

Also, Chang developed a positive reputation by meeting regularly with departments and individual faculty during the restructuring process. He seemed to have widespread support in the sciences and in the arts, humanities, and social sciences (personal interviews). Of his appointment as dean of the newly constituted college, Chang said,

The idea of starting a brand-new College of Science is really quite exciting, and I am honored to be part of the team that will be putting this unit together. We are
fortunate to be living at a time when progress in science and technology is making possible what we could only dream about only a short while ago. I look forward to working with everyone at all levels and backgrounds to achieve our collective goal of reaching top-tier status (Cox, 2003)

The former consortium of Arts, Humanities, Social Sciences, Education, and Human Resources was collapsed into a single college in the final structure. The College of Liberal Arts and Human Sciences encompassed all of these areas. Jerome Niles was named dean of the college; he had served as the interim dean of the College of Human Resources and Education after Dean Johnson’s retirement and had been that college’s Associate Dean prior to that. Provost McNamee focused on Niles’ administrative experience in his announcement:

Dr. Niles’ substantial administrative experience will position the college to move forward as quickly and surely as possible to assume its rightful position as a major force in Virginia Tech’s quest for increased prominence as a major research university…He has the leadership skills necessary to guide the faculty efforts to define a new vision for the arts, humanities, social sciences, human sciences and education at Virginia Tech (Cox, 2003).

Departments

Concurrent with university-level discussions concerning the best way to divide and merge colleges was another set of discussions amongst faculty members, department heads, university administrators, and Joseph Merola, the university restructuring fellow. These discussions were centered on the alignment of individual departments within the new colleges. A number of departments were moved out of their former colleges, but the processes and discussions surrounding these moves did not seem to follow a standard format or rationale (personal observation and personal interviews).

The first difference was in timing; some moves happened near the beginning of the restructuring process, but others were not finalized until much later in the process.
One particularly contentious departmental merger (Economics with Agricultural and Applied Economics) was extensively debated and then left undecided at the official end of the restructuring process. The second difference was the degree of faculty involvement in the process. For some departments, the moves seemed to have been determined at the highest administrative levels and executed without significant input from the departments. Other departments went through discussions and a series of faculty votes which, depending on perspective may or may not have been taken seriously in the final decision (personal interviews). Some other departmental faculty and chairs lobbied the administration and the deans to allow their departments to be moved to new colleges.

The third way that these departmental alignments differed was in the underlying rationale offered for the moves. In a few cases, it is extremely difficult to determine why a department ended up in the college it did. On the surface, most faculty, department chairs, and deans talked about departmental alignments in terms of synergies and collaboration that could be expected between the faculties of the departments included in the colleges (personal interviews). More careful questioning revealed that a number of other factors influenced these decisions. These ranged from perceived financial stability and the availability of returned overhead on research to traditional alignments of academic disciplines at top universities to doubts concerning the perceived quality and productivity of the faculty in certain departments (personal interviews).

In lieu of describing the final departmental alignments and the background of the decisions regarding each, I offer a few of the more interesting examples to highlight the kinds of issues that arose during these discussions. The main caveat I provide here is
that these examples are based mostly on the public information concerning the process, a few internal memoranda, and information gathered through select interviews with those involved. There are certainly perspectives I am unable to represent here. This effort is therefore illustrative.

Agricultural and Applied Economics & Economics

University administrators recommended that the departments of Agricultural and Applied Economics in the College of Agriculture and Life Sciences and the Department of Economics in the College of Arts and Sciences be merged to save on duplicate administration and to enhance the two individual departments which shared a doctoral degree program. This change was discussed when there was no permanent dean in the College of Agriculture and Life Sciences, but it met with resistance from both faculties. The newly hired Dean of Agriculture and Life Sciences requested that the decision be deferred until her arrival in Blacksburg so that she could evaluate the situation and make an informed recommendation.

Her request was granted, but before her arrival, a memorandum was sent to the two department chairs from Provost McNamee describing a report produced by two faculty members from the department of human development. The report, based on “in-depth personal interviews” suggested that the proposed merger had stirred up “internal stresses”, “unresolved issues”, and “diverging opinions about current focus and future directions” (McNamee, 2004). Rather than let this seemingly doomed merger die, McNamee allocated $15,000 to support seminar visits by external colleagues who can add to the intellectual environment on campus for faculty and students, especially in those areas that highlight emerging areas of overlap between agriculture economics and other aspects of economics (McNamee, 2004).
The memorandum then instructed individual faculty members to contact the provost directly with concerns or suggestions, but indicated that the window for this communication was only six days from the date the memorandum was issued. The two departments remain separate, and the attempted merger is consistently cited as one of the most contentious areas of the restructuring. Opponents of the merger continue to cite the traditional distinction of these two departments at land-grant universities as a reason for remaining split (personal interview). There are different cultures in the two departments; agricultural economics has a traditional role in the outreach mission of the university and values this activity more than most other departments on campus, especially outside of the College of Agriculture and Life Sciences. Economics, interestingly, moved to the College of Science during the restructuring due to a self-described affinity with mathematics and statistics.

The proposed merger may have had at its core a well-intentioned attempt to bring like minds together; however, the administrators who designed the merger were neither agricultural or traditional economists. The department chair during the restructuring summarized his perception of why the merger attempt was unsuccessful,

Nobody came to the people involved and said, ‘will you make a better mouse trap, we would like to encourage you to make a better mouse trap’; instead, what happened was top down. ‘Oh you two guys have economics in your name, so you should be in the same department’6 (personal interview).

In the end, the proposal may have done more to separate these two departments than it did to bring them together.

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6 Excerpts from personal interviews conducted during the course of this research are treated as direct quotations, but, when I felt it would not change the meaning of the quotation, I have done minor editing to improve readability.
Computer Science

The story of computer science was a little different. Depending on the person interviewed, the faculty was either deeply divided or unanimously supportive of the department’s eventual switch from the College of Arts and Sciences to the College of Engineering. Prior to any decision regarding the college with which the department would align, however, there was much discussion concerning the establishment of a School of Computing and Information Technology. Virginia Tech’s computer science department has a very good academic reputation, but the department head and others argued that the department would benefit and gain additional prominence if it were moved to a School of Computing that was related to the College of Physical, Mathematical, and Sciences. The details of this concept were never completely sorted out, but it was spurred by similar structures at other research universities and a national dialogue that was taking place prior to Virginia Tech’s restructuring efforts.

Initially, computer science was seen as a department that would have been integrally involved in the consortium because of its recent participation in campus initiatives in computational biology and bioinformatics. Eventually, the department aligned with the College of Engineering, a college with a very different culture and focus than the College of Arts and Sciences.

It is impossible to identify a single reason that Computer Science decided to move to engineering, but its department head suggested that engineering offered more financial stability for the department, a greater potential for additional resources in the future, a substantial support structure for graduate student recruitment, and, perhaps most importantly, an undergraduate admissions process that is segregated from the
general application process. The latter of these reasons has the potential to relieve significantly the burden on the department of overcrowding in undergraduate classes. It gives the department a mechanism for controlling computer science majors; previously, students admitted to Virginia Tech could become computer science majors based solely on their undergraduate performance in lower-level coursework.

**Sociology**

In the early stages of the restructuring, when it appeared there would be a College of Liberal Arts and a College of Human Resources and Education, the department of sociology was split on its preferred alignment. There was a group that believed the College of Human Resources and Education would be a natural fit because of the perception that the college and the sociology department both emphasized applied research. There was also a group of faculty that felt that the quality of scholarship would be higher in the College of Liberal Arts.

A series of faculty votes revealed uncertainty within the faculty, as the department’s preference for which college with which to align switched back and forth. Interestingly, the decision did not really matter. The two proposed colleges were merged together in the adopted plan, and the negative feelings in the department appeared to have been generated for no particular purpose. Some of the people who were personally offended by the discussion that took place ended up moving to different departments on campus.

**Faculty**

To a much lesser degree, there were also faculty members who moved between departments during the restructuring. The School for Public and International Affairs
(SPIA), which had existed prior to the restructuring as a loose conglomeration of faculty from several departments and colleges, was the primary locus of the faculty moves. The final restructuring plan made SPIA a more formal organization—the terminology on campus was that it was made a “hard school.” As a hard school, SPIA could have faculty affiliated with it in a more direct way. Where faculty members in political science were previously affiliated with SPIA purely on paper, SPIA now had the opportunity to move salaries and positions under its own administration (personal interview).

To begin to develop its faculty, the university appointed John Randolph, an experienced department chairman from Urban Affairs and Planning, as the first director of the hard SPIA (Newbill, 2003a). As a unit of the College of Architecture and Urban Studies, SPIA was also made the home for Urban Affairs and Planning and the Center for Public Administration and Policy. These two departments had a social science focus that was somewhat separated academically and physically in a college that also encompassed architecture, industrial design, landscape architecture, and building construction.

In addition to the existing faculty in these two departments, SPIA had built strong relationships with faculty in geography, political science, and science and technology studies. When SPIA’s status change allowed it to administer its own faculty, the school offered positions to existing faculty in these departments, plus two members of the sociology faculty. The result was the transfer of 2 sociologists and 1 geographer to the new SPIA, plus 6 faculty who were moved to joint appointments with SPIA and the department of political science in the College of Liberal Arts and Human Sciences.
(Newbill, 2003a). This was, of course, not without considerable ill will, earning SPIA a reputation for raiding departmental faculties (personal interview).

In addition to faculty who moved between colleges at Virginia Tech, there was also an exodus of faculty from Virginia Tech who were dissatisfied with the process and outcomes of the restructuring. It is extremely difficult to determine a number of faculty members who left for reasons related to the restructuring, but anecdotal evidence suggests that the number may have been substantial (personal interviews).
Figure 12 shows Virginia Tech’s academic organizational structure after the restructuring.
CHAPTER 4: STATE FAILURE, STRATEGIC RESTRUCTURING, AND COLLATERAL DAMAGE

The top 30 thing is kind of pulling a lot of this, but the strategic plan is what’s important here.
–Minnis Ridenour, Executive Vice President and Chief Operating Officer

Goal Attainment

One potential rationale for why Virginia Tech administrators pursued restructuring would have been to optimize the university’s organizational structure to meet their goal of moving into the top 30 institutions in the United States. This was the explanation most frequently given by the administration, both publicly and during interviews conducted for this research; it was also perceived by many faculty members to be the reason for the restructuring effort. If Virginia Tech’s overall goal was the impetus for restructuring, then it is also important to understand the genesis of that goal.

In the chapter that follows, I document the environmental factors and the perceptions of key administrators that gave rise to the university’s most prominent goal, the top 30 research goal, including a perception that state government would not fund the university at an adequate level in the future. I also provide evidence suggesting that the administration’s decision to restructure was based partly on a perception that Virginia Tech could not achieve its goals or survive as a national research university with its existing structure. Next, I explore some of the unintended consequences of the restructuring, and I suggest that negative implications for faculty morale have the potential to weaken the university’s ability to become a top-tier research institution (Kerlin & Dunlap, 1993). Finally, I explore some of the assumptions that underpinned the decision to restructure.
The Environment of Chronic Scarcity

A theme that emerged early in my discussions with Virginia Tech leaders was a consensus that the Commonwealth of Virginia would not be able to provide the financial resources to achieve the vision that had been developed to chart the university's future. To understand this perceived inability of the state to meet Virginia Tech’s financial needs, it is critical to understand the resource environment in which administrators and faculty members worked. The section that follows reviews several events and viewpoints that might have contributed to perceptions of the state's failure to fund adequately its institutions of higher education.

In 2000, the Virginia Joint Legislative Subcommittee on Higher Education Funding Policies heard the commissioned report of a consulting firm outlining a proposed method for calculating base budget adequacy in state-supported institutions of higher education. The base adequacy calculation relied heavily on benchmarking national trends for expenditures and staffing levels. The base budget adequacy methodology took into account instructional and support-related costs (MGT of America, 2000). The determination of the base adequacy level for each institution was not a guarantee that funding would reach that level, but it was intended to establish a long-term goal for state officials. When the base budget adequacy levels were calculated in FY 2000, they indicated that the Commonwealth of Virginia would underfund its postsecondary institutions by between $187 million and $206 million in FY 2001 (MGT of America, 2000); a recalculation in FY 2002 showed that the total was approximately $192 million (State Council of Higher Education for Virginia [SCHEV], n.d). Virginia Tech accounted for almost $21 million of that deficit, the second largest amount for any
individual institution in the state; only James Madison University and the Virginia Community College System (comprised of 23 individual institutions) had larger funding gaps.

In addition to the base budget adequacy concept, Virginia policymakers also had “adopted a policy of funding teaching and research faculty salaries at the 60th percentile of each institution’s benchmark group” (Steger, 2001); maintaining funding at the 60th percentile of the benchmark group or peer institutions7 proved difficult for the state, but the target had remained a part of the state’s higher education funding model (Educational Policy Institute, 2000; Steger, 2001). President Steger indicated that in FY 2001, Virginia Tech’s average faculty salary was at the 54th percentile (Steger, 2001), but by FY 2004, Virginia Tech’s salaries had plummeted to the 25th percentile of its peer group (VT BOV, 2004b). State university presidents, faculty members, and the State Council of Higher Education for Virginia (SCHEV) recognized that this was an extraordinary disadvantage in the recruitment and retention of top quality faculty members for their institutions (Palmiero, 2003).

Chronic under-funding was a hindrance to university operations across the state in an environment of stable enrollments, but institutions had learned to survive in a constant state of fiscal scarcity. Unfortunately, state-level demand for seats at Virginia colleges was forecasted to increase by over 60,000 between the years of 2000 and 2010 (SCHEV, 2003b), Virginia colleges and universities were faced with the reality of either matriculating additional students without significant additional financial or human resources or turning them away. In the latter scenario, Virginia residents would be

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7 Peer institutions are identified by SCHEV and are based on institutions with similar size, scope, and focus (http://research.schev.edu/roie, accessed 10/15/04).
forced to seek education, and potentially long-term employment, in other states. The ramifications of a policy that sent Virginia students to neighboring states for their postsecondary education were emphasized by SCHEV to state institutions and elected officials (SCHEV, 2003a).

**Deeper Cuts**

Despite funding higher education below the prescribed base budget adequacy levels and the 60th percentile benchmarks for faculty salaries, Virginia consistently increased its budget appropriations for higher education in times of economic prosperity (Palmer, 2004). Institutions of higher education generally received an incremental budget increase from year to year when the economy was healthy. Historically, individual institutions also used modest tuition increases to meet their increased budget needs; however, in 1996, the administration of Governor George Allen froze tuition at Virginia’s public college and universities (NASULGC, 2000). The ban on tuition increases lasted until 1999 when Governor James Gilmore forced state institutions to decrease tuition by 20% (NASULGC, 2000). Many universities responded by significantly increasing their student fees to compensate partially for the lost tuition revenue (Bryant, 1999).

At Virginia Tech, combined undergraduate tuition and fees increased by only 44.0% over the period from 1989 to 2002 (Lovegrove, n.d.), while the national average for all four-year institutions for the same period was 125.4% and 127.6% for public four-year institutions (U.S. Department of Education, 2003). From 1996, when Governor Allen’s tuition freeze was implemented, to 2002, Virginia Tech’s total undergraduate tuition and fees were reduced by 10.3% (Figure 13). By the half-way point of the
Gilmore administration, the state’s revenue began to fall significantly short of projections. A September 13, 2001 memorandum from Virginia’s Secretary of Finance to the governor indicated that revenue collections for “the first two months of fiscal year 2002 [were] 2.1 percent, well below the 7.5 percent growth rate required to attain the current revenue estimate” (Forbes, 2001). Eventually, state revenues would miss their mark by over $237 million in FY 2002 (Bennett, 2002). This left the state legislature and incoming governor, Mark Warner, with one of the worst budget scenarios in recent memory. At the beginning of FY 2003, estimates forecast a $524 million deficit for the approved budget, but that estimate continued to grow. Eventually, the Commonwealth of Virginia realized revenue shortfalls of $5.3 billion for the 2002-04 budget biennium (VT BOV, 2002). All state agencies suffered severe budget cuts, and public higher education institutions were forced to implement some of the deepest cuts. Virginia Tech lost roughly $72 million in state funding from its base budget. In the process of implementing the cuts, Virginia Tech lost approximately 10% of its tenured and tenure-track faculty positions (Miller, 2003b) and numerous administrative and support staff positions (Steger, 2002b). The majority of position reductions were effected through the implementation of an early retirement incentive, dubbed the Alternative Severance Option (ASO). To participate in the ASO, departments submitted eligible employees’ applications as part of their overall budget reduction plans. The final authority for ASO decisions rested with the Virginia Tech Board of Visitors and central administrators who reviewed the plans for feasibility (Steger, 2002).
Figure 13. shows historical costs of attendance for Virginia Tech with comparison data for all higher education and for all public institutions for the academic years 1988-89 to 2001-02 (Source: U.S. Department of Education, 2003; Lovegrove, n.d.).
The chronic inadequacy of base funding and the retrenchment associated with the acute state-level revenue shortfall, left Virginia Tech with fewer state dollars overall and on a per student basis. In FY 2001, the state provided $6,993 per student enrolled at Virginia Tech; the very next year that amount had dropped to $6,599 and then to $5,535 in FY 2003 (Virginia Tech University Relations, 2001; 2002; 2003). Enrollment at the university remained relatively constant during the period of the cuts\(^8\) (Lovegrove, n.d.) and thus offered no relief to the financial situation. The university increased its tuition by 7.6% in academic year 2003-2004 to offset a portion of the budget cut, but the final result was a university that struggled to offer enough sections of its courses, faculty and staff that saw no cost-of-living raises for two years, and students who were asked to pay more for their education.

The retrenchment that occurred in 2001-2003 was severe, but it was not the first time that such cuts had affected Virginia Tech. During the administration of Governor Douglas Wilder (1990-1994), higher education absorbed severe budget cuts. In the 1990-1992 biennium, Virginia Tech’s general fund budget was reduced by $37 million, and between 1990 and 1996, the total reduction to the university was over $46.7 million (Cox, 2000).

State Failure

In the following section, I document a perception shared by senior university administrators that the Commonwealth of Virginia did not and would not have, in the near future, the capacity to provide Virginia Tech with an adequate base of financial

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\(^8\) Academic year 1999-2000 undergraduate enrollments totaled 21,428; 2000-2001 totaled 21,593; 2001-2002 totaled 21,473; 2002-2003 totaled 21,348; and 2003-2004 totaled 21,323. These enrollment figures are taken from the enrollment census in the fall semester of the given academic year (Lovegrove, n.d.).
support. They believed that the state had too many other commitments and priorities ever to fund its own base budget adequacy and 60th percentile guidelines. Administrators saw the persistent base budget inadequacy as a hindrance to their efforts to keep Virginia Tech in the same league of institutions with which it was compared. Since base adequacy levels depended upon the peer institutions to which funding was benchmarked, Virginia Tech administrators felt that an inability to maintain their position relative to their peers would result eventually in a new set of peer institutions and, subsequently, a lower base budget adequacy. It was this potential spiraling down of funding that motivated Virginia Tech’s leaders to look for other sources of funding to supplement existing state support.

The idea that the state would not be able or willing to strengthen its support to the school was prevalent at the highest levels of the administration. The Executive Vice President, Minnis Ridenour, said:

And I think, from my view point, the University has to look at growth from various revenue sources, because I’m not certain that we can continue to depend long-term on just the general fund and tuition and fees as our primary sources of revenue (personal interview).

Steger, following the same logic, indicated that the state’s history of higher education funding was insufficient to allow Virginia Tech to reach its goals:

…we've got to give the units the resources to really fulfill their mission, and specifically, over the, you know, there has been disinvestment in higher education in Virginia for the last decade, and you know all that, I won't go into all that, but, but as we came in, you know, we are about, we're short about 300 faculty members today... we hope next year to be able to hire 80 new faculty members and really crank this thing back up (personal interview).

John G. Rocovich, Jr., a prominent member and the rector (2002-2004) of Virginia Tech’s Board of Visitors and a confidante of two recent Virginia governors,
called it a duty to the Commonwealth of Virginia’s taxpayers for the state’s colleges and universities to become more self-supporting, adding, “...we’re probably never going to reasonably expect any greater participation from the state than we have now” (personal interview).

With senior administrators and board members in agreement that the state was unlikely to meet Virginia Tech’s short or long-term needs adequately, efforts were made to identify alternative funding mechanisms. To that end, President Steger and his advisors envisioned a strategy to enhance the university through substantial, planned growth in externally sponsored research grants and contracts. The success of this strategy would depend on the ability of the administration to leverage existing resources to attract new and larger sponsored programs.

Rocovich described the revenue streams at Virginia Tech and the potential options for increasing expenditures as follows:

...if you [take] all of the enterprise together, [it is] considerably in excess of a $1 billion a year business. We get maybe $250 million from the state government, the general taxpayer fund. We get tuition, and we solicit donations from our alums and friends. That’s good for about $70 million a year. And we have returned overhead from research.

...if you can do research, then the money that comes in from research pays your faculty, pays for buildings, pays for heat, light, and power and the returned overhead gives you discretionary money to advance the university.

Given the situation that I think we’ve been in for some years, and for the foreseeable future, given the other demands on state government, I think we owe it to our taxpayers, and our citizens to do the best we can to self-finance and run the institution in such a way that we don’t ask an unreasonable burden on the taxpayers (personal interview).

**Academic Capitalism**

Research at universities sponsored by external funding sources (e.g., industry, foundations, government) can be a significant revenue stream. In FY 2002, Virginia Tech reported $232.6 million spent on research and development; more research
intensive schools can significantly exceed those levels. For example, Johns Hopkins University, the national leader in research expenditures, reported $1.1 billion of expenditures in FY 2002 (National Science Foundation, 2004).

On the surface, the sponsored research model may not be an obvious mechanism for covering existing expenses or new non-research programs. Ostensibly, the sponsor is paying for a particular investigator to conduct specific research; however, the sponsored research model typically consists of payment for related direct costs (e.g., faculty salaries, supplies, and travel) and associated indirect costs for facilities and administration. Increased indirect cost recoveries have the potential to cover costs that were previously paid for with other types of funds, freeing up resources for new program development, subsidization of non-revenue generating activities, and reinvestment in physical infrastructure.

Ultimately, Rocovich viewed the expansion of the research function at Virginia Tech as a way to subsidize the teaching and outreach functions, but he emphasized that the university should not grow unchecked. He was dogmatic in his belief that Virginia Tech must build primarily on its existing, traditional strengths; he said:

If we are going to join the ranks of the world’s elite universities, which we are fully able to do in your and my lifetime, it will have to be concentrating on our strengths. That’s funded scientific research in engineering, science, and agriculture. I mean, that’s where our opportunity is (personal interview).

*The Top 30 Imperative*

Virginia Tech’s commitment to supplementing its operations through the growth of its research endeavors was articulated by President Steger in the form of the top 30 goal. He described pursuit of top 30 status as imperative to the long-term stability of the
institution, and indicated that inaction was tantamount to failure. He described the
national research arena, as a cutthroat, market-like environment, and he said:

…the data are there, it’s already happened—you are seeing that the strong institutions are getting much stronger at an accelerating rate…and, I think, before the end of the decade, a lot of third tier or little institutions are going to go bankrupt because they didn’t have an efficient management structure. The market is keenly competitive, and they are not going to survive. If you look at the $16 billion of research that is done in universities in this country, the top 50 do 70% of all research… and their share, their market share, is growing (personal interview).

From Steger’s perspective, the top 30 goal had been developed as the result of a careful “analysis of the future of the university”, but some others viewed the goal as a way for the new president to define his personal vision and motivate the campus community (personal interview). Commenting on the genesis of the top 30 goal, an administrative staff member of the former president who served Steger during his transition remarked:

After he [Steger] was selected, he began talking with a number of people about the future, and, you know, if you’re a leader with some savvy, you know that you have to galvanize people…So, you have to have a mechanism, it’s either going to be an idea, or it’s going to be a sequence of decisions or a concept or something. Charles decided to say, in his inaugural address, that his goal was to move this place into the top 30 by 2010…

…He began to speak publicly about it, and it was extremely motivating to the campus community. Even people who typically are very skeptical of anything that comes out of Burruss Hall9 were actually kind of excited about this and began to see new possibilities (personal interview).

The sentiment that the top 30 goal was designed to unite the university community was echoed by a humanities faculty member who also observed that the goal demarcated Steger’s presidency from that of his predecessor, Paul Torgersen:

I do think that [President Steger] came on board and realized he needed a cause of some kind. He needed to make a mark for himself…Charles [Steger] had a

9 Burruss Hall is Virginia Tech’s main administrative building and home to the Offices of the President, Provost, and Executive Vice President.
very hard, hard path to follow in that Paul Torgersen had been a really incredible president. Even those of us who disagreed with a lot of what he said really admired the man and his courage and all kinds of things. He had led in a way that was...I mean his voice was heard. And I think that Charles probably felt he needed to lead in a way that would be heard too. So, the clarion call for his administration was going to be top 30 (personal interview).

In addition to being the centerpiece of Steger’s inaugural address, the top 30 goal was restated as the university’s overall goal in its new strategic plan (Virginia Tech, n.d.c). Rather than being a result of the strategic planning process, the top 30 goal seems to have been the driving force behind that effort. When the strategic planning committee was established, the members knew that the top 30 goal was central to Steger’s vision for the university. Rosemary Blieszner, the University Director of Strategic Planning, said:

The way I see it, is that we got a new president who had a vision. He said, “let us update the strategic plan, mission statement, and value statement in correspondence with this vision that I have” (personal interview).

The University Community Reacts

By virtue of its prominence in university dialogue, its centrality in the university strategic plan, and its aggressive target, the goal received widespread attention on campus and in the local media. As might be expected, reaction to the goal was mixed. For some faculty members, the goal seemed to be inspiring:

If you have the capacity and facilities and faculty and staff and everything else, you are much more likely to be competitive to get the grants, and then you are going to have the inventions and the creative new research. That’s going to buy you more grants and better faculty. So, I always thought of it as this spiraling up, you know, in stature and competence and quality of the outcome. You know, I guess I believe it. I think [Steger] really came to that from a pretty careful analysis of what was going on (personal interview).

The newly appointed provost, Mark McNamee added that when he arrived on campus he perceived the university community to be receptive. He said:
My impression of the top 30 goal was that it had really captured the imaginations of the faculty members, most of the faculty who wanted to see some good things happen (personal interview).

Others agreed that the goal could be *inspirational*, but felt that achieving the specific target might be too difficult. A professor in the College of Agriculture and Life Sciences congratulated the administration on having the vision to challenge the university to advance, but hinted that top 30 status might be difficult to achieve:

> If you, as a university, don’t sit there and say, “how can we keep improving?” you’re going to slide backwards. And so, even if you don’t get to thirty, maybe you’ll get the top forty (personal interview).

A department chair in the College of Science commented on how the faculty with whom he had contact had received the top 30 goal:

> As I listen to the faculty, some people are quite cynical about it and view it as “you know, this is what a new president does. He articulates some goal, but no way are we going to be able to do this under the current situation.”

> Other faculty members are more positive; this is what some people in the university refer to as a stretch goal. Even if we don’t get there, just the effort in reaching for it makes us better. So, it has varying degrees of legitimacy, I think, across the faculty…(personal interview).

After the initial reaction to the top 30 goal subsided, a more reasoned analysis of its implications occurred on campus. The biggest criticism of the goal focused on the belief that there has been no clear indication, either in the strategic plan or by President Steger, of the criteria by which progress toward the university’s overall goal would be evaluated. Steger had indicated in his inaugural remarks that he was thinking of the rankings relative to national research universities, but he did not specify a particular metric. In lieu of a formal endorsement, the university administration increased its emphasis on the National Science Foundation’s (NSF) annual ranking of universities which was based solely on institutional research and development expenditures.
Both the administration and the university community quickly adopted the NSF rankings as the unofficial measure of the top 30 goal; when people said “top 30” at Virginia Tech, they almost exclusively meant it in terms of the NSF rankings (personal interviews and observation).

The administration did not respond resolutely to criticisms that they had defined too narrowly the criteria for evaluating the top 30 goal. During my interviews some faculty and administrators indicated that the NSF ranking had been embraced by the administration to the exclusion of a more comprehensive measure, but departmental administrators and deans revealed that there had been a high-level dialogue about alternative and composite performance measures. The interview excerpts below support the idea that, despite these discussions, the general perception within the university community remained that the NSF rankings were the only measure that really mattered.

One department chair felt President Steger had embraced “a more comprehensive vision” of the top 30 goal. She indicated that her own anxiety had been quelled mostly due to her attendance at a forum for department chairs. At that forum, Steger had defined top 30 status in terms of scholarship quality and productivity, going beyond the purely financial measure of the NSF rankings. She added that the forum “was just for a few of us who are department chairs, and, unfortunately, not many of us showed up for it. But, it was a good talk” (personal interview). So, even if the administration had reconsidered its definition of top 30 status, only a select portion of the campus was privy to the information. Based on its lack of communication with the
university community, a humanities faculty member called the administration “their own worst enemies” (personal interview).

The chair of the department of computer science described the evolution of the top 30 indicators from his perspective:

…there were other factors that were then, over time, sort of brought into the discussion. We need strong graduate programs in the arts and humanities to be an AAU\textsuperscript{10} member. Top 30 is really more a metaphor for strong across the board programs. So, I think from its articulation to the present, the legitimacy [of the top 30 goal] has been under this cloud of budget cuts. And the university has been trying, I think, to find the right way to explain what the top 30 goal means. It's shifted and changed over time…

…a top 30 goal that is articulated and measured by research dollars, that's going to be the driving force. It's certainly been a thing that we all continue to use internally at both the department and college level in arguing for whatever it is we want to do on the basis of this is going to contribute to top 30 (personal interview).

\textit{Internal Perceptions}

The perceived lack of commitment by administrators to broader measures of the top 30 goal contributed to a feeling amongst some faculty and departments that Virginia Tech was no longer committed to being a comprehensive institution (personal interviews). There were those who wondered what the goal meant for the university overall and their own colleges, departments, and programs. Using a measure of top 30 status based solely on research expenditure levels created the impression that Virginia Tech did not place significant value on high quality scholarship outside of the traditionally well-funded fields of science and engineering.

\textsuperscript{10} The Association of American Universities (AAU) is a group of 62 leading research universities in the United States and Canada. “Membership in the association is by invitation. The invitation of new members, which requires the assent of three-fourths of current members, is considered approximately every three years.” Virginia Tech is not a member of the group, but AAU membership was discussed as one possible indicator of national prominence as a research university (www.aau.edu, accessed 8/13/2004).
The perception that the university was consciously diminishing the focus on their fields was especially troubling to faculty members in the arts, humanities, and social sciences where large grants and contracts were historically scarce or nonexistent. For example, the chair of a humanities department summarized the view of many faculty members and departmental administrators in the arts, humanities, and social sciences:

…anyone who is outside of the sciences and engineering knows that top 30 means nothing. And so, for a comprehensive institution to strive only and exclusively for top 30 NSF status is silly. Unfortunately, there was no one in the room, apparently, when this was decided who said, “just a minute, you know that you are going to raise the hackles of almost every faculty member who is outside of this particular equation because they are going to feel that they don’t matter”. I think that unfortunately Charles [Steger] didn’t hear that until many months later (personal interview).

In addition to what some perceived as a marginalization of the liberal arts, there were also those who believed that the top 30 goal did not provide an incentive for quality teaching and outreach activities. The university’s formal strategic planning document included sections that addressed proposed goals in graduate education, undergraduate education, and outreach; however, if the real emphasis was on reaching top 30 NSF status, many felt there would be an implicit devaluation of the teaching and outreach functions of the university. A former president of the faculty senate said:

You also see something else that’s kind of important and that is undergraduate courses have been allowed to grow in size. I think there will be a push to hire more instructors [instead of tenure-track faculty] and crank them [students] through and not have the tradition of a, of more of a, teaching type, type tradition (personal interview).

Departments that used significant human capital to teach in the university’s core curriculum or to deliver outreach programs felt that, without appropriate mechanisms to recognize those activities, they were disadvantaged in their ability to contribute to the top 30 goal and, therefore, to compete for allocations of internal resources. This led
some departments to feel that they were being forced to make the uncomfortable choice of either continuing to serve undergraduate students and outreach audiences or refocusing their departments on research activities. Speaking of this trade-off, one faculty member said:

...we’ve killed ourselves in some ways writing proposals…it was just a question of getting some money restored to us so that we could actually teach the courses. We can’t teach them, there’s no way to teach them given the money that we’ve got (personal interview).

Restructuring

As the university community struggled to make sense of the top 30 goal and to interpret what it meant for individual departments and programs, Provost McNamee formally announced an academic restructuring. In a letter to the university community, McNamee outlined the rationale for the restructuring:

Our departments, schools, colleges, centers, and institutes should be organized to maximize our opportunities to achieve national and international scholarly distinction in the areas we choose to emphasize (McNamee, 2002).

President Steger provided a similar justification in his 2002 “State of the University” address:

Restructuring…is a response to the changing times. This was a good opportunity to re-evaluate the university's structure and examine how we can be the most effective and meet the goals set out in the strategic plan (Steger, 2002c).

For those departments and faculty members who felt threatened by the top 30 goal’s implied research emphasis, the announcement of a restructuring was unsettling. Departments without a strong research-orientation felt vulnerable, and comments like the one that follows from a senior administrator only strengthened that feeling:

…when we started looking at what it takes to accomplish that vision [top 30 status], and at the same time remain focused on the quality of undergraduate instruction, if you go back and look at strategic plan, all these points are emphasized and the need to really be focused on the build up of graduate
education in order to be more successful in research, then we realized that if you look at external funding sources, the piece that was missing for us, was the connection into the biomedical and health sciences and to be able to link some way with NIH funding in a larger relationship. That, I think, in itself, said that we needed to look at an emphasis in sciences.

And the feeling was that if you looked at the College of Arts and Sciences and you had a huge college with a very diverse, um, set of programs, and whether or not it’s possible to really continue to have the focus of that college to where it was the Sciences would be prominent in terms of moving us forward, I think led to some discussion of the need for this kind of reorganization. And then, tying it back to this vision and to the need to be focused on technology and biomedical and health sciences, that led to the focus on critical technologies for engineering and the sciences and other programs like the College of Veterinary Medicine and others. And then, Jim Bohland looked towards the effort in the Biomedical and Health Sciences area. So, all that’s back to trying to flesh out this vision to move the institution to a greater focus on research and a greater focus on resource development (personal interview).

Amongst many administrators and college deans, it was not surprising that some form of restructuring would follow the announcement of the top 30 goal. A member of President Steger’s transitional administrative team said:

I think it’s fair to say that it was always, sort of, an understood piece of a goal like that—that you would have to look at what we’d need to change to get us there. I mean it was just a given part of the concept that you wouldn’t jump that many places [in the rankings] by continuing with business as usual. Most people I know understood that combined with the search for a new provost, which ensued not immediately but soon, this campus may not look the same in a few years—as it did the day Charles was installed. And I don’t know any savvy person who didn’t perceive that we wouldn’t have the same structure, we wouldn’t be aligned in quite the same way. Most people who were in the know at all, especially in some of the science and technology and engineering fields, were well aware then that, at some cutting edge universities, things were organized very differently.

We’re still organized on a model for a different age, an age that was passing more rapidly. So, I don’t know about the rest of the world, but I assumed that we just weren’t going to look the same. Among the Deans’ Forum, my friends, I know they believed that (personal interview).

If the restructuring was an obvious outcome of the top 30 goal, the process by which it would occur and the structure that would result were not. Provost McNamee had advocated an open process resulting in proposed new structures that held
“compelling opportunity for improvement.” He also advocated a limited duration for the process, and set a goal of having substantial restructuring recommendation in time for a Board of Visitors meeting less than three months after the announcement (McNamee, 2002).

By most accounts, the restructuring did not live up to McNamee’s ideals. The duration of the restructuring process was longer than expected too. From the announcement of the restructuring to the approval of the final plan encompassed 13 months. One administration veteran said of the lengthy process:

What I have come to believe is that, you know the root word of organization is related to organism. And I think that organizations are organisms; they are living collections of cells. And an organism can become exhausted; it can become depleted of its resources, if distracted hard enough and long enough and if you know, if it seems relentless and unending. And I think that’s where we’re at risk now, Gary. Having spoken in support and in favor of Charles’ vision and his mandate to Mark and Mark’s quick implementation, because he doesn’t have long, 2003 is coming.

You know, so I understand where these guys are, but at the same time, it is also true that I don’t think people can deal with a whole lot more of this uncertainty. I think, as an organism, we need some resolution and we need some certainty. We need to start giving the workers certainty, pretty soon. The ideal would be between Thanksgiving and Christmas, and I have said this loud and clear in several quarters that if we come back for January, the campus reconvenes, and certain things are not settled once and for all, reliably and with great clarity, I think we’ve got real trouble. I mean in the uprising sense; I don’t mean that the university is going to come crashing down (personal interview).

For some, the uncertainty surrounding the restructuring process and its outcomes seemed to verify the belief that the administration’s motives for restructuring were not academic. This theme was common to most of the interviews I conducted with non-administrative informants. A faculty member from the College of Agriculture and Life Sciences said:

…if you read the restructuring it’s all about getting money. It’s all about getting money. It’s all about getting money. And I think that a lot of faculty think that
there’s still a role for teaching as well as getting money. And don’t take that as I’m opposed to getting money, because I’m not (personal interview)

He continued:

…one thing that is going on is Rocovich, and the osteopathic medical school, and the desire for the universities to match up and grow and get funds. And the perception is the only funds that there are to get are related to sciences, particularly NIH [National Institutes of Health]. So, that’s probably the motivation factor as much as anything.

The reason people rob banks is because that’s where the money is. So, if you are going to, theoretically, reorganize to be able to find more money, you’re going to reorganize according to what? Where the money is! (personal interview).

The new organizational structure that emerged from the restructuring process further contributed to the perception amongst some faculty that the university was marginalizing the liberal arts by collecting together departments with a strong history of acquiring sponsored research funds. To avoid being left out of the university’s envisioned future, some “traditional” liberal arts departments sought to be moved to the new College of Science. Publicly, the stated justification for such moves usually centered on the argument that the specializations of the departments were better aligned with their colleagues in the natural and physical sciences.

This was true of both psychology and economics. The department of psychology was allowed to join the College of Science early in the restructuring process. James Bohland, the Senior Fellow for Biomedical, Bioengineering, and Health Projects and previously the interim provost, said that “one of the justifications for doing that was they do a lot of NIH work” (personal interview). Later, the department of economics was moved to the College of Science on the grounds that its faculty members were more closely aligned with those in mathematics and statistics. Interestingly, the dean of the
College of Science, Lay Nam Chang, indicated that even the department of political science had once been in discussions to move to his college. He said:

…for a period of time, there was even talk about having political science join the College of Science and why is that? What sense does it make? It makes a lot of sense because of issues that got dramatized or was brought to our attention in the most dramatic way, in the most unfortunate way, through the incidents of 9/11.11 It pointed out to the fact that there is great disparity at the technological front between sections of society here and elsewhere. And the technological front is important because it drove the economic imperative; it drove the cultural imperatives. So, any advances that we make in science and engineering will have consequences in society at large, and it could impact upon the cultural divide that is a reality.

So, we actually talked about how this might work. In the end political science went with the other college because the pull of the tradition of social sciences was much too strong (personal interview).

Academic synergy may have been important in alignment decisions, but it was not the only factor. Several past or present department chairs with whom I spoke indicated that most departments were looking for financial stability and alignment with the college that they felt would give them the greatest advantage in acquiring new university resources (personal interviews).

The original restructuring plan that was disseminated to the university community included two autonomous colleges for the arts, humanities, and social sciences. It also developed the School for Public and International Affairs, which resided in the College of Architecture and Urban Studies, and the School of the Arts as stronger organizations to encourage collaboration amongst faculty in the arts, humanities, and social sciences. Late in the process, this plan was abandoned and a revised organizational structure was issued. The new plan merged the proposed College of Liberal Arts into the existing College of Human Resources and Education. The resulting College of Liberal Arts and

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11 By “9/11”, Chang was referring to the terrorist attacks on the World Trade Center in New York City and the Pentagon in Arlington, Virginia that occurred on September 11, 2001.
Human Sciences included the departments from the former College of Arts and Sciences that were not moved to the Colleges of Science, Architecture and Urban Studies, Agriculture and Life Sciences, or Engineering. It also became the home for most of the departments that were in the original College of Human Resources and Education. The university administration called the new college a victory for the arts, humanities, and social sciences; they suggested that the new structure would give the liberal arts the ability to stand alone and make a mark. The provost remarked:

My assumption going into [the restructuring] would be that the humanities and social science people would be absolutely thrilled at the prospect of having their own college, which would mean that they would have representation at the highest levels of the administration, that they would have the ability to define what their needs were, to speak up for what kinds of programs made sense and the kind of students they wanted and so on. And that they would be the most advantaged part of this…

So, it surprised me when a number of the faculty from the humanities and social studies were quite alarmed at the prospect of having their own college. They perceived, based on what they believed might happen at Virginia Tech, that this was an effort to focus all the resources on the sciences and basically sequester the humanities and social science departments together with the intention of devaluing what they contributed.

I was very surprised, because I expected just the opposite—they would be clamoring to have their own college. I think it took a lot of discussion for me to understand what motivated that kind of concern. And then also to figure out what we could do that would overcome those issues. A lot of it has to do with there is a fundamental difference in historical standing of these departments within the university and that concern on the part of the humanities and social sciences, that they had not been fully developed, and that, if they were not helped with a lot of new resources, they weren’t going to have the chance to be developed.

I think we’ve overcome those issues, although the new rounds of budget cuts, of course, distress everybody…too hard to move as quickly. But the view that I have, and I think that they share too, is that if Virginia Tech is going to be a top 30 university, a top 30 comprehensive university, as it is designed to be, then you really can’t afford to have weak programs embedded with your stronger programs. The sciences have got to be very strong if engineering is going to be strong. And I believe that liberal arts disciplines need to be strong, in order for the whole university to be strong.

So, thinking about how to insure that that happens in a systematic way [is important]. Now the irony is that at Virginia Tech, I think, the liberal arts departments are much better and stronger than they believe they are. And there
Table 1

Documents the movement of departments from the pre-restructuring College of Arts and Sciences and College of Human Resources and Education.

<table>
<thead>
<tr>
<th>Original College/Departments</th>
<th>Destination College</th>
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<td><strong>College of Arts and Sciences</strong></td>
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<tr>
<td>Art and Art History</td>
<td>Architecture and Urban Studies</td>
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<tr>
<td>Biology</td>
<td>Science</td>
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<tr>
<td>Chemistry</td>
<td>Science</td>
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<td>Computer Science</td>
<td>Engineering</td>
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<td>Economics</td>
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<tr>
<td>English</td>
<td>Liberal Arts and Human Sciences</td>
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<tr>
<td>Foreign Languages and Literatures</td>
<td>Liberal Arts and Human Sciences</td>
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<td>Geography</td>
<td>Natural Resources</td>
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<tr>
<td>Geological Sciences</td>
<td>Science</td>
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<tr>
<td>History</td>
<td>Liberal Arts and Human Sciences</td>
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<tr>
<td>Interdisciplinary Studies</td>
<td>Liberal Arts and Human Sciences</td>
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<tr>
<td>Mathematics</td>
<td>Science</td>
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<td>Music</td>
<td>Liberal Arts and Human Sciences</td>
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<td>Philosophy</td>
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<td>Physics</td>
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<td>Political Science</td>
<td>Liberal Arts and Human Sciences</td>
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<tr>
<td>Psychology</td>
<td>Science</td>
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<tr>
<td>ROTC (Air Force, Army, &amp; Navy)</td>
<td>Liberal Arts and Human Sciences</td>
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<tr>
<td>Science and Technology Studies</td>
<td>Liberal Arts and Human Sciences</td>
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<tr>
<td>Sociology</td>
<td>Liberal Arts and Human Sciences</td>
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<td>Statistics</td>
<td>Science</td>
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<td>Theatre Arts</td>
<td>Liberal Arts and Human Sciences</td>
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| **College of Human Resources and Education** | |
| Apparel, Housing, and Resource Mgmt | Liberal Arts and Human Sciences |
| Communication                       | Liberal Arts and Human Sciences   |
| Educational Leadership and Policy   | Liberal Arts and Human Sciences   |
| Studies                             |                                    |
| Hospitality and Tourism Management  | Business                           |
| Human Development                   | Liberal Arts and Human Sciences   |
| Human Nutrition, Foods, and Exercise | Agriculture and Life Sciences      |
| Interior Design                     | Architecture and Urban Studies     |
| Teaching and Learning               | Liberal Arts and Human Sciences   |
are actually very good faculty members that have good curriculum. Curriculum is good; students like the classes, there are many good scholars in those programs. So, they have a good foundation from which to develop.

The challenge they face is that there has never been enough resources for those areas. It’s not something that Virginia Tech is known for or is expected to be that strong in. So, there is a feeling of, well, no one is ever going to really care how we do. And, my hope is that, my plan would be that, if we can build some clear examples of strength, you know, some interdepartmental Ph.D. programs or some developmental advanced graduate programs, that’s the best way, without much real cost, to really develop a sense of identity and community, as a set of disciplines. That’s what led us to what we are trying to do (personal interview).

Despite McNamee’s perception that a separate college would strengthen the liberal arts, a sentiment persisted amongst some members of the university community that the departments that remained to comprise the College of Liberal Arts and Human Sciences were viewed as weak, whether academically or financially. This observation led one faculty member to observe of the new college:

Yes, that’s the College of Leftovers—not wanted elsewhere. You can quote me on that. Those faculty members were the colleges’ [Arts and Sciences] leftovers. (personal interview).

A social science department chair in the new College of Liberal Arts and Human Sciences had heard, on numerous occasions, McNamee’s idea that the separation of the sciences would allow the liberal arts to fulfill their own potential. He indicated that the real test would come when it was time for the new college to compete for internal allocations of university resources:

You know that’s the elephant in the room. I really can’t say, because nobody knows. And the provost has explicitly said, I think I’ve heard him on at least three occasions, say that in no way is he going to underfund liberal arts. You know that his theory is that it will actually help.

Um, I think it can’t get any worse. That’s for sure. You know what I mean? It’s like the previous and this administration have terribly underfunded the college. I think we’ve got nowhere to go but up, and I think we’ve got the faculty to take us there. There’s no money (personal interview).
As an example, the chair of a department in the College of Liberal Arts and Human Sciences added that focusing any additional departmental resources on research activities would be difficult if they were forced to work within the confines of their existing budget. She indicated that the extremely large teaching load for her department was not supported with an appropriate operating budget during the period surrounding the restructuring.

We have an operating budget that is $134,000. This is for nearly 90 faculty, 7 staff, that’s for the entire year. $55,000 of that is taken out for the telephone and the internet; it’s encumbered before we start. And so that’s what we’ve got left (personal interview).\(^{12}\)

Even the chair of the department of computer science agreed that the history of underfunding the liberal arts was disabling to those departments:

> And I think it’s been a long standing, and perhaps legitimate, argument on the part of the humanities and social sciences that university resources have historically been biased towards departments that could attract external funding. …I don’t think the restructuring by itself influences that. From what I have heard from our sister departments in the former College of Arts and Sciences, it wasn’t an organizational issue which was preventing them from developing research or graduate programs, it was all resource issues. You can reorganize all you want, but if you don’t change the resource issues, you don’t fundamentally change… (personal interview).

In response to questions regarding their commitment to the liberal arts, administrators cited a promise to fund the development of several new interdisciplinary Ph.D. programs and to build a performing arts center on campus (personal interview).

Minnis Ridenour, the university’s Chief Operating Officer, said:

> …the arts and the humanities are at the very center of what we do in the other areas of the university. At the same time we are investing in the research enterprise, in terms of engineering and biomedical and health sciences, we’re

\(^{12}\) In the year following restructuring, the department received an operating budget supplement that enabled them to better fulfill their teaching functions (personal communication).
emphasizing major investments in the arts and humanities. We’re building a brand new performing arts facility as part of the way to strengthen the performing arts, we’re heavily engaged…To me, that’s a major focus on the arts and humanities (personal interview).

President Steger also cited the performing arts center as a sign of commitment:

...we’re going to make some healthy investments in the humanities within the next few months really. And I can see how people would feel that [worried about the future of the liberal arts at Virginia Tech]. You know we’re going to build a new performance hall here; we’re going to and I think a little of that evidence—talk is cheap—a little evidence will help people to view, you know, view their role as exceedingly important in the educational process for our students (personal interview).

The promises coming from university executives did not necessarily assuage faculty concerns. When asked if she felt the construction of the performing arts center would prove the administration’s commitment to the arts and humanities, a humanities faculty member indicated that the center, in particular, was unrelated tokenism:

I don’t think the performing arts center is going to change the kind of community spirit here because it’s not going to have anything to do with academics for the most part. Theatre Arts says that it won’t and Music says that it won’t. They won’t have their offices in there. I mean it’s a building that is really for the community...I’m sorry they are still saying that...

It is a wonderful thing, but in terms of academics, you’ve got to look at, for example, the Theatre Arts Department. They used to have something like 23 GTAs [Graduate Teaching Assistants]—an incredible MFA program. They have a wonderful, world-renowned MFA program. It’s technical...it’s to do with production and set design and it’s really just right for a school like this, and it’s been slashed. You know, you cannot slash a program with one hand and then say that you love the arts with the other. So, I think that the proof is in the pudding (personal interview).13

The new dean of the College of Liberal Arts and Human Sciences, Jerome Niles, supported the administration and believed their promises would be fulfilled. He disagreed with the idea that the administration was only superficially committed to the arts, humanities, and social sciences. As evidence, he offered several ways that Virginia

13 Theatre Arts received an addition to their budget in the year following the restructuring (personal communication).
Tech was improving its ability to excel in these fields, and he denied that his was a “College of Leftovers.” Niles said that faculty members who were feeling “rejected by the university” were having “a surface level response” (personal interview). He continued:

When you look beneath that then you have to look at, what are the things [the administrators] are doing? No college has anywhere near the Alumni Distinguished Professors\(^\text{14}\) that this college has. We got two new ones last year, in fact, and that’s representative of how the university feels about the faculty. So, you know, I haven’t done it, but I can put together a counterargument for [marginalization] in many different ways.

I think the most concrete way that will show that the college is valued is that there will be a flow of new resources into the college for the development of graduate programs in the humanities and social sciences. Most people think that’s only rhetoric and that it will not happen, but it will happen. It’s already happening in the case of the MFA in English, but it will happen in a broader way too. There will be more graduate students here; there will be more faculty here in both areas [humanities and social sciences]. Other areas will stay fairly stable—the human sciences and education programs will stay somewhat stable.

I think in five years people will be very surprised that this is not the College of Leftovers, that it does have some cohesiveness to it…The faculty themselves are highly productive faculty, the same thing for the human sciences and education people. There’s a lot there that they do for this university. You know, the university chose to keep its human sciences and education programs. It didn’t have to do that; it could have chosen otherwise. It could have chosen to eliminate those and take that money and invest it. It couldn’t get rid of the liberal arts, it has to have them, but to what degree? That becomes the next question.

So, I think people will be more convinced over the next five years or so, because it will take time for the university to begin to pump a positive balance of resources into the system. The first thing that began to catch peoples’ attention in this college was that we hired twenty-six—we started out with twenty-four and we ended up adding two more—twenty-six new positions this year in this college. So, if that doesn’t say something about what the university is willing to do…I mean, it could have just grabbed those (personal interview).

Administrative Assumptions

In making the decisions to pursue top 30 status and organizational restructuring, university administrators made three key assumptions that should be examined. First,

\(^{14}\) Virginia Tech bestows the title of Alumni Distinguished Professor on some its best faculty members. The university defines the title as “a pre-eminent faculty appointment, reserved by the board of visitors for recognition of faculty who, over time, have made outstanding contributions to the instructional program of the university and, in so doing, have touched the lives of generations of Virginia Tech alumni” (http://www.provost.vt.edu/web_pages/ADPs.html, accessed 9/34/2004).
the pursuit of the top 30 goal was seen as enabling because it was expected to
galvanize the university in a unified effort and the restructuring was intended to build on
the sense of unity to position the university to be more competitive in acquiring
sponsored funding. Second, the top 30 goal was perceived by university administrators,
and eventually a large portion of the university community, to be imperative to the
survival of Virginia Tech as a national research university. Third, the administration
assumed, based on its experiences, that the state would be unable or unwilling to fund
the university at a level necessary to achieve the goals described in the strategic plan.
In the sections below, I briefly review these three assumptions.

An Enabling Structure

If the restructuring was intended to leverage Virginia Tech’s existing strengths
and human resources to attract new research funding, then there are some indications
that it worked. In the first quarter of FY 2005, Virginia Tech’s sponsored research
awards were up over 27% over the same period the previous year (Miller, 2004b).
Whether or not this trend continues will be determined in time, but most of the college-
level administrators and faculty with whom I spoke, indicated that the restructuring did
very little to change their activities.

One faculty member and former administrator from the College of Architecture
and Urban Studies said:

…there was a lot of, in some colleges, a lot of fussing and fuming about what this
is going to mean, and I guess in the end, it’s not going to have a really large, it’s
not going to have a real major, kind of big effect. I mean had we done
restructuring under better financial conditions, I think the effect would have been
more. I think any negative effects the faculty perceived are more the financial
factors more than restructuring (personal interview).
When I asked a faculty member from the College of Human Resources and Education how the restructuring had affected her work, she responded:

Well, you know, personally as a faculty member in this department and this college and stuff, I don’t think so on one level, not really. I mean, I do what I do. I was motivated to do research and get grants and teach well and do outreach and all that stuff, but I’ve been motivated that way for the last 22 years, and I don’t think I’ll change any time soon regardless of what the structure is.

You know, I think on another level, the way our college is, doesn’t make any sense at all. The changes that happened to our former college...yeah, I don’t see the point. I think the ideal would have been to just leave our former college alone and to divide the College of Arts and Sciences into the Sciences and the Liberal Arts and Humanities and let it be (personal interview).

The view that the restructuring would probably not accomplish much was also alive in the faculty. A professor in the department of agricultural economics said of the restructuring:

It’s not accomplished anything. It’s angered a lot of faculty...If Arts and Sciences should have been split, then Arts and Sciences should have been split and they should have made that [decision]. But, when they started moving the other chairs on the Titanic, as many of us saw it, nothing, nothing was accomplished. I think if you go talk to a lot of faculty, you’ll find that faculty right now are just hunkered down and doing their own thing. The esprit de corps of the university—and I’m a member of the university community, I want to participate in university activities—I think you will find a lot of faculty that have just kind of gone to this. And their whole goal is to just, if they are old enough, bide their time ‘til they retire. If they are young enough, they are looking elsewhere. They are a good bunch of people and staff who have left (personal interview).

The impression that the restructuring hurt faculty morale was accepted nearly universally. When I asked the new dean of the College of Science, Lay Nam Chang, about morale in his college, he said:

It’s not as high as I would like it to be. It’s not as high as I would like it to be because the resources aren’t there.

A friend of mine once told me that a vision without resources is merely a hallucination. And, I think we’re just fooling ourselves if we don’t have the resources...Virginia Tech couldn’t have picked a worse time to do restructuring than the time that it did, because that’s the time that we were being severely cut
by the state, so the resources are simply not there. Yet at the same time, the whole idea of restructuring has to be underpinned by a grand vision. And yeah, I am worried that that grand vision might simply be a grand hallucination (personal interview).

The former president of the faculty senate attributed low morale, at least in part, to a lack of opportunity for faculty participation in the restructuring process. He said:

Faculty weren’t actively involved in that process. I don’t know of any faculty that served any kind of major role. Nobody said here’s our restructur[ing plan], what do you think of this?...I was president of the faculty senate at that time and I don’t think there [were] any faculty members on the restructuring committees…Well can you find any faculty up there? Can you chase it down to here’s a committee that’s Smith and Wesson? (personal interview).

At the university level, McNamee appointed “an ad hoc faculty workgroup to advise him on the options for restructuring” (Cox, 2002b). Although the group was publicly described as “an additional mechanism for faculty input into the discussions” (Cox, 2002b), the work of the group was not transparent to most faculty members (personal interviews). Whether or not opportunity existed, two faculty members said that the culture and climate at Virginia Tech prohibited quality participation in university governance. The first said:

… people aren’t willing to speak out in public forums very much, but that’s the tradition of a top-down military institution and that’s still the way things work around here. Oh, you haven’t figured that out yet. Huh (personal interview).

The second added:

it’s not been a university where faculty involvement has been terribly appreciated nor invited; there have been exceptions. The administration of President McComas was an unbelievable reopening to the faculty, where he basically said faculty and students matter. And I think you know Provost McNamee, to some point, and you know there are certainly very different personalities involved.

He came from a university where faculty involvement was very important, and I think has been rather surprised at how little voice faculty have at Virginia Tech. And he’s, I think in many ways, tried to push the faculty to become more involved, but he sort of butted up against that traditional, “oh, you know it doesn’t
matter what we say, they’re going to do what they want to do, things aren’t going to change” and in this case, things did change. And it’s kind of like, “my gosh what is happening?” (personal interview).

The negative effects of restructuring on faculty morale may dissipate over time, but the loss of good faculty and staff will be more difficult to overcome. If the restructuring brought about hard feelings that impede collaboration within the university or reduce individual faculty productivity, then the end result could potentially be the opposite of that intended.

Research to Survive

The second assumption that I explore below was the idea that Virginia Tech had no other option than to pursue research funding and top 30 status to buttress its funding base and to maintain its status as a national research university. In reviewing interview data, I was convinced that President Steger’s construction of the top 30 goal as imperative to the survival of Virginia Tech as a national research university was important to securing support from administrators and academic deans. The evidence that I collected suggests that the university community perceived the top 30 goal to be the primary motivating factor in restructuring. University administrators, department chairs, and faculty members all agreed that the administration’s focus on achieving top 30 status was a driving force behind all of the restructuring decisions.

It may be relevant to note that the facts with which President Steger framed the top 30 imperative, at least when he spoke with me, differed from numbers published by the National Science Foundation. The most recent NSF report on university research expenditures indicated that in 2002 colleges and universities expended over $36 billion on research and development activities (not $16 billion). While Steger indicated the top
50 institutions were responsible for 70% of the total, the NSF reported that number at closer to 57% (National Science Foundation, 2004). Despite some differences, Steger’s main assertion, that the top institutions spent a disproportionately large portion, was true.

Steger also indicated that the top institutions were attaining a larger percentage of the total amount for which they were responsible; implying that institutions left out of the top tier would see their resource base decline (personal interview). As Figure 13 shows, however, growth in the proportion of total R&D expenditures by the top universities actually was minimal (<1%) over the eight year period from 1995 to 2002 (National Science Foundation, 2004). This critical assumption in Steger’s justification for the top 30 goal does not seem to be corroborated by the data. The overall distribution of the funding actually has been quite stable over time.

At the top of the rankings, the institutions are relatively consistent from year to year; they may move up or down one or two places, but it is rare for an institution to skip over other institutions for three reasons. First, the total amount of research at the top of the rankings is so large that it would take more than just a few grants and contracts to propel a lower ranked university into the top tier. Second, funding agencies are often repeat customers, providing continuing funds to programs in which they have already made significant investments. Third, the institutions at the top of the NSF rankings are well aware of their positions and are working to maintain their positions; so,
Figure 14. shows the percentage of total research and development expenditures by the top 10, 30, and 50; and 51-60 higher education institutions in the National Science Foundation rankings (Source: National Science Foundation, 2004).
most institutions are increasing their expenditures from year to year, moving the entire list forward instead of a single institution. The institutions nearer the bottom of the top 50 are much more in flux.

As the total research expenditures decrease, the influence of individual grants and contracts become more pronounced. A school ranked 49 in one year may drop out of the top 50 simply due to the end of a multi-year grant. Virginia Tech has been ranked in this area for most of the recent rankings; it reached 44th in 1997, but in the most recent year’s rankings (2002), Virginia Tech had fallen to 52nd (National Science Foundation, 2002) (Figure 16). The delayed publication of these rankings makes it difficult to interpret how university efforts to improve in the rankings are working.

Unreliable State Support

The assumption that the state would not have eventually contributed more to higher education remains unproven. Longitudinal trends both nationally and in Virginia show that states incrementally increase their support for higher education over time. When the economy is faltering, funding may decline or stagnate, but a long-term view shows that funding increases have substantially outpaced inflation. For the ten year period from FY 1994 to FY 2004, for example, the average increase in state appropriations of tax funds to higher education was 46.7%, and in Virginia the increase was 41.2% for the same period, inclusive of a 17.8% decrease in the FY 2002 to FY 2004 period (Palmer, 2004).
Figure 15. shows Virginia Tech’s ranking relative to other higher education institutions based on research and development expenditures (Source: National Science Foundation, 2004).
Recent university activity further supports the notion that Virginia Tech administrators did not view state government as the funding source for its aspirations. The university has recently been involved in efforts to seek greater independence from the state. Virginia Tech, the University of Virginia, and the College of William and Mary have jointly entered into efforts to become the state’s first chartered universities. This initiative, which still must gain state legislative approval to amend the Code of Virginia, would reduce the institutions’ responsibilities to use state level systems for activities like personnel, capital construction, and purchasing (VT Office of University Relations, n.d.). It would also allow the schools to conduct their own cash management and accrue the associated interest; under the existing system, all university receipts must be deposited into and disbursements made from state accounts.

Virginia Tech has argued that the legislation would allow it “to utilize [its] revenue capacity and asset base to produce more non-taxpayer funds to enhance the educational experience of all students” (Virginia Tech, 2004). To acquire this flexibility, the associated universities proposed to agree to predetermined accountability criteria, including limitations on increases in tuition and fees and submission of oversight reports to the General Assembly (Virginia Tech, 2004). Additionally, the universities would agree to forego portions of future incremental state appropriations to higher education such that they may be used to improve the state’s non-chartered institutions.

On the Construction of Scarcity and the Research Imperative

My review of the university administration’s assumptions in pursuing restructuring does not imply that university leaders should have waited for the state to meet all of their institution’s perceived needs. The chronic base budget inadequacy in Virginia
shows that to be an unlikely scenario. I do hope to highlight how the social construction of an issue facing university administrators might have an influence on the future of the organization (Neumann, 1995). If university leaders adopted goals and management strategies in response to narrowly defined measures of success or long-term responses to either short-term or exaggerated conditions, the unintended consequences could significantly change the nature of Virginia Tech. These changes may be reflected in the underlying core values of the university administration and faculty or in inadvertent damage to Virginia Tech’s reputation as a university offering a comprehensive curriculum. If the university is truly interested in broader measures of top 30 status than the NSF rankings, then it might do well to consider actively how a research focus and economic measures of success will reflect on the university as a whole.
CHAPTER 5: THE BUSINESS OF HIGHER EDUCATION

A second potential explanation for why Virginia Tech decided to restructure was the perception by university administrators that state elected officials, including legislators and at least the three most recent governors, viewed higher education as wasteful and inefficient. I believe this perception might have been a secondary factor in the restructuring decision. Unlike the previous chapter where university administrators openly identified the top 30 goal as the motivation for restructuring, this chapter explores a more subtle influence. Only one informant overtly identified efficiency-seeking as a reason for restructuring, but my analysis of interview transcripts identified a consistent pattern of language that indicated most university administrators perceived as a high priority the need to appear more businesslike, more entrepreneurial, and more efficient.

In this chapter, I provide a limited review of major developments in the state political environment that might have directly or indirectly sent a message to Virginia Tech that its operations needed to be restructured to earn the approval of state policymakers. I also suggest that university leaders might have used the restructuring to preempt attempts by political actors to increase their control of the operations of the university. Then, I review the language and patterns from interviews and university documents that reveal an underlying theme of thinking about the university as a business.

Although higher education researchers and leaders have noted a trend toward the commodification and marketization of their institutions for decades, there remains a need to document this trend. Slaughter and Leslie’s multinational, comparative study of
a movement they called academic capitalism—“institutional and professorial market or marketlike efforts to secure external moneys” (1997, p. 8)—was important in highlighting this shift (Lutz & Field, 1998). Others have documented emphases on entrepreneurship (Clark, 1998), commodification (Gibbons, et al., 1994), and the adoption of “management fads” in higher education (Birnbaum, 2000; 2001).

Setting the Tone in Virginia State Government

In Virginia, the pursuit of a more market like system of higher education, valuing economic principles and entrepreneurialism over academic ideals, was championed by a number of politicians and political appointees. In the section that follows, I describe a few of the people and events that helped to create a more businesslike ethos in the Virginia higher education environment. The resulting business ethos was so endemic that it appears to have influenced the way that university administrators defined legitimate activities in their own institution. These themes are explored as well.

Efficiency, Cost-reduction, and Entrepreneurism

John G. Rocovich, Jr., a Roanoke, Virginia based attorney, was appointed to the Virginia Tech Board of Visitors by Governor George Allen (R) in 1997. Allen’s successor, James S. Gilmore III (R), reappointed Rocovich in 2001 and in 1998 tapped him to serve on the state-level Blue Ribbon Commission on Higher Education. The lengthy quotation that follows was the official charge of the commission; it seemed to send a message that the governor was dissatisfied with existing accountability mechanisms and efficiency in the state’s higher education system. It also highlights the governor’s view of higher education as a vehicle for workforce and economic development. In his first official act as governor, Gilmore asked the commission for advice:
regarding the methods for improving the process through which Virginia’s public colleges and universities are funded. Specifically, the Commission should evaluate: how to make the current funding process more consistent and predictable; how to increase fiscal accountability; how to keep higher education in Virginia affordable; how to make cost and quality compatible objectives; and what incentive structures can be incorporated into the funding process that will encourage efficiency, innovation, and a focus on the quality of the students who graduate from our educational institutions instead of the quantity of resources spent.

The Commission shall advise the Governor on how the institutions, administrators, and faculty that comprise Virginia's system of higher education can be made more accountable to their stockholders (the taxpayers, the parents, and the private contributors who finance the system) for the quality of the academic content and the outcomes accomplished through the investment of public funds.

The Commission shall advise the Governor regarding mechanisms for assisting Virginia's public colleges and universities to become incubators of technological and economic enterprise in their local communities and throughout the Commonwealth.

The Commission shall advise the Governor on how Virginia can better prepare its public colleges and universities to meet the technological and competitive challenges of the 21st Century.

The Commission shall advise the Governor on how to help Virginia's public colleges and universities produce the kinds of graduates that the Commonwealth will require if it is to meet its workforce needs in the 21st Century and have a well educated, well informed, and involved citizenry.

The Commission shall take an inventory of the needs of higher education in Virginia essential to provide excellent educational opportunities and academic programs for Virginia's students (Gilmore, 1998).

Virginia Tech administrators would have been acutely aware of the content of this Executive Order, and the appointment of Rocovich would have made the Blue Ribbon Commission’s final report extremely relevant. The themes that dominated the report echoed the executive order that created the commission. The proposals the commission included were far-reaching, covering everything from standardized measures of institutional effectiveness to resource efficiency and funding to evaluation of student competencies. The commission reported:

In light of the sharp competition for limited public resources from every sector, the citizens of Virginia cannot be expected to continue to support substantial
increases in higher education spending unless they are presented with a body of meaningful evidence that demonstrate the high educational quality their support makes possible (Flippen, et al., 2000, p. 50).

The report continued by defining measures of “value-added” as the best way to assess excellence in higher education (p. 50). As Gilmore had suggested, the commission also emphasized the stake that economic and business interests had in higher education:

The resources of Virginia’s system of higher education must be brought to bear on today’s education and training needs and on the work force demands of the business community or risk losing business to more aggressive states (p. 88).

Around the same time the Blue Ribbon Commission report was issued, John Rocovich wrote an issue paper calling for a restructuring of Virginia’s higher education system. In the paper, Rocovich employed a metaphor that summarized what appeared to be a widely-held belief amongst state and national politicians, that government, and specifically public higher education, was wasteful (see Light, 2000). As a solution he called for a businesslike overhaul to cut costs and increase productivity, Rocovich wrote:

Higher education can be compared to a fruit tree. The fruit tree needs sunlight, water, fertilizer and constant pruning for maximum quality and volume. Institutions of higher education eagerly seek the sunlight, water and fertilizer; but at least from my vantage point, they seem to lack the determination and discipline for the constant pruning of deadwood in staff and programs. Compared to the dramatic restructuring of American industry, Virginia institutions of higher education have not yet substantially restructured, even when funds were sharply reduced a few years ago…

In general, when educational institutions are charged with restructuring themselves, the result seems to be a huge amount of process ending in a lesser amount of substance. …I suspect that all institutions of higher education in Virginia could have done more. We made a good start in Virginia; but like the fruit tree, our higher education restructuring needs constant and continued pruning (Rocovich, 1999, p. 4).

In the same issue paper, Rocovich proposed, that by increasing higher education’s use of technology, state-supported campuses could decrease their reliance
on physical space and human resources. Anticipating that his proposal would meet with criticisms on the grounds of quality, Rocovich added that most quality-based arguments were thinly veiled attempts to show that “the only solution to the future of higher education is massive dumping of capital construction money” on colleges (Rocovich, 1999, p. 5). Instead of seeking to increase quality by adding instructors and space, Rocovich advocated larger class sizes, adding that it was unrealistic to expect that class sizes were going to be small given the demands on the system.

The sentiment of Rocovich’s proposal, that higher education and government can do more with less if it follows the lead of American industry, was a central premise of the conservative political platform on which Governors Allen and Gilmore were elected (Allen, 1995; Axtell, 2003; Calmes, 2004). Candidates who vowed to alleviate what they described as a heavy tax burden and a bloated, ineffective government found favor in Virginia in the 1990s (Associated Press Newswire, 1997). James Gilmore’s popularity was based, in no small part, on an incremental repeal of the local personal property tax on automobiles in Virginia, the “car tax” (O’Dell, 1997). He promised to repeal the car tax during his campaign and he delivered on this promise once elected. While extremely popular with the general public, the change in tax policy was at least partly to blame for higher education’s budget cuts in the 2002-2004 biennium. When the state attempted to restore local revenues lost in the car tax repeal, the bill topped $825 million in FY 2002 and $850 million in FY 2003 (Office of the Secretary of Finance, 2003).

Encouraging smaller, more efficient government was not a philosophy subscribed to only by Republicans like Allen and Gilmore; Gilmore’s successor, Mark Warner, took the governor’s office in 2002 on a moderate Democratic platform that had many
commonalities with those of his predecessors (Galuszka and Burke, 2001). Warner’s campaign was based primarily on his business experience and his reputation as a wireless technology entrepreneur; he called for revamping government agencies with an eye toward cost-efficiency, utilization of technologies to reform outdated processes and reduce costs statewide, and improvement of the Commonwealth of Virginia’s attractiveness to business. In his State of the Commonwealth address in 2002, Warner said:

In the coming days, I will initiate a top-to-bottom review of state government. This review will consider the consolidation of state agencies. It will examine the very functions of state government - because there may be some things state government is doing that we can no longer afford. It will seek out new opportunities to integrate new management techniques into state government. Finally, it will identify ways that increased utilization of technology can allow us to serve our citizens more effectively.

Governor Warner described Virginia’s research universities as underutilized resources, and during his campaign and early tenure, he described the state’s universities as economic development “engines” (Warner, 2002). In 2003, Warner held a higher education summit where he outlined his vision for the Commonwealth’s major research universities (i.e., Virginia Tech, University of Virginia, and Virginia Commonwealth University). An internal Virginia Tech publication summarized Warner’s comments at the summit as follows:

…Warner set a goal of having an additional 15 research programs ranked in the top five nationally, and to identify ways to help campuses operate in a more entrepreneurial manner. In his remarks…Warner challenged Virginia’s public and private universities to set goals to increase the estimated $607 million in current research and development expenditures to $1 billion by the end of the decade.

“My interest in research is not so much for its own sake, or for the reputation of any one institution. My interest is in how research contributes to our quality of life and helps meet our collective needs,” Warner said. “Not every institution of higher education can or should aspire to be a top-30 research
Despite Warner’s view of higher education as key to the future of the state, he oversaw some of the largest budget cuts Virginia colleges and universities had ever experienced. A sluggish state economy and an inherited budget crisis were mostly to blame, but Warner did little to spare higher education from the full force of the cuts.

The common theme of Gilmore’s Blue Ribbon Commission’s final report, Rocovich’s issue paper, and the general political climate was that higher education was viewed from the state capital as being ripe for improvement in terms of efficiency and accountability. Rocovich summarized this idea:

Universities are, after all, fiduciaries. They occupy the public trust with custody of our funds, our children, and our heritage. It is not unreasonable to demand efficiency and accountability in the execution of that trust (Rocovich, 1999, p. 5).

Holding American industry as a standard to which higher education institutions should be compared, the call for a business-like approach to management at colleges and universities was difficult to ignore.

If the language coming from Richmond was not a clear call for higher education reform, the actions of Governors Allen and Gilmore indicated that they intended to impose their expectations by exerting increased control over college and university operations. With an eye toward reducing waste at colleges and universities, the governors orchestrated a series of events that sent a message to higher education leaders demanding greater accountability, less waste, and evidence of direct contributions to the state economy. In the section that follows, I document some of these events in an effort to show that Virginia Tech’s leadership felt compelled to restructure in order to demonstrate that the university was fulfilling these mandates.
Challenging University Autonomy

In March 1997, the State Council of Higher Education for Virginia (SCHEV) convened a training conference for members of Boards of Visitors of Virginia’s public colleges and universities. The conference was staffed by the National Alumni Forum (NAF)\(^\text{15}\), a group *The Chronicle of Higher Education* described as “led by political conservatives who urge trustees to be forceful leaders of their colleges”. Critics of the group said that the Virginia conference “urged board members to become active combatants in ‘battles’ over academic content and standards” at their schools (Healy, 1997). The selection of NAF by SCHEV was seen by some as a political maneuver by the Allen administration to exert more direct control over operations via his board appointments (Healy, 1997). The president of the national Association of Governing Boards said that he felt the presentations from NAF were “dangerous” (Healy, 1997).

When Gilmore took office, a similar controversy erupted. Secretary of Education, Wilbert Bryant, delivered remarks to the Blue Ribbon Commission in which he said:

> I believe all our college presidents want what they believe is in the best interest of the students, but in some instances, their priorities may not always be the priorities of the Governor.

> Carried to the next logical step, as an appointee of the Governor, board members should realize that just because the president believes something is a good idea does not make it so. There should be times when Board members ask the president: “How does this policy meet the Governor’s goal of an affordable education? How does this proposal meet the Governor’s goal of making institutions more accountable to the taxpayers of Virginia?” (Bryant, 1999).

In an interview after these remarks, Bryant was reported to have told a *Richmond Times Dispatch* reporter that board members are the “foot soldiers of the Governor” (Intress, 1999). Bryant later denied using that terminology, but the theme of his speech appears to corroborate the sentiment, if not the exact phrase.

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\(^{15}\) The National Alumni Forum changed its name in 1998 to the American Council of Trustees and Alumni.
The legal ability of the governor to require board members to execute his political agenda at public colleges was questionable. The statutes that constitute the Board of Visitors at Virginia Tech empower the governor to appoint board members, but do not explicitly empower him to remove them (Code of Virginia, 1970). Ostensibly, the post-appointment independence of the Board of Visitors from the governor held the potential to limit the influence of partisan politics in board decisions, but this did not always hold true. For example, John Rocovich had attempted to influence university operations throughout the state via suggestions in his 1999 issue paper. His recommendations were closely aligned with the political agendas of Governors Allen and Gilmore in that they advocated cost-saving measures, increased accountability, and entrepreneurship; however, his proposals came without a full discussion of their pedagogical appropriateness for higher education.

Rocovich proposed to “beam in” lectures to all state schools in an effort to save faculty salary costs. Advocating the use of educational technologies (e.g., interactive video conferencing) to send lectures from the state’s most outstanding faculty to students at schools with less skilled or no faculty in certain subject areas, Rocovich explained that the benefits for the students and the cost-savings for the colleges would be substantial. As an example, he wrote:

Bud Robertson at Virginia Tech is a renowned authority on the Civil War. His course can fill up an auditorium of 500 but is limited to 300. His lectures are spellbinding; but, because of large enrollment, the question-and-answer interaction available for a class size of 20 or 30 is not possible. Tests and exams are computer graded. Why shouldn't his course be offered by Internet, net.work.Virginia, satellite, wireless spectrum communication, or other means to the other higher education institutions in Virginia that either do not have such

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16 Net.work.Virginia is a broadband, statewide network designed to facilitate access to educational institutions and businesses in the Commonwealth (http://networkvirginia.net, accessed 10/10/04).
an eminent professor in a specialized, but popular subject, or that merely want to expand course offerings at extremely low cost? (Rocovich, 1999, p. 5).

In addition to his suggestions for the classroom, Rocovich suggested that the state should limit the expansion of programs at its universities to eliminate unnecessary program duplication. He felt that colleges and universities in the state were under pressure to expand their programs “becoming everything to everybody,” which he characterized as a waste of taxpayer money (personal interview). By asking institutions to focus on their traditional strengths (e.g., Virginia Tech’s engineering, agriculture, and architecture), Rocovich believed that individual institutions would thrive in their areas of expertise and that the support of higher education required of taxpayers would be held at lower levels.

Less than a year after Gilmore’s attempt to exercise greater control over Board of Visitors members, he announced that he would seek to develop Institutional Performance Agreements (IPAs) with each public college and university in Virginia (Miner, 2000). IPAs were one of the core proposals from the Blue Ribbon Commission on Higher Education; the IPAs were to be institution-specific, six year plans that established strategic goals and tied state financial support to “accountability measures for academic quality and operational effectiveness” (Miner, 2000). Gilmore said:

Higher education in Virginia needs a mechanism to ensure our tremendous investments in higher education yield tangible, measurable results in terms of improved academic quality for students and institutional efficiency for tuition payers and taxpayers. I am confident the strategic plans drafted for these institutions this year will serve as models for other institutions to follow in future years (Miner, 2000).

College leaders lauded the plans for their ability to stabilize state financial support, but were concerned because “the performance-based plans are once again raising red
flags among those who prize the relative independence enjoyed by the state’s higher education institutions” (Hebel, 2000). The IPA effort was not passed in the 2000 legislative process, but it further illustrated to academic leaders that state officials were interested in managing academic programs at an unprecedented level of detail.

The repercussions of Allen and Gilmore’s efforts to create a legion of activist board members included high profile skirmishes between administrators and boards at several public institutions. At Old Dominion University in Norfolk, the resignation of the president was attributed by some to his contentious relationship with the school’s Board (Walzer, 2002). The increased level of control and partisanship that was exhibited by Boards of Visitors across the state was troubling to many observers (Walzer, 2002).

Historically, higher education institutions have had more autonomy than other state agencies in Virginia (Schapiro, 2000). Even though a significant amount of authority is vested in the Board of Visitors—tuition and fee approval, personnel administration for faculty, approval of strategic plan and institutional missions, and evaluation of the president—boards had often been relatively passive in their roles, regularly deferring to the advice of university administrators (Walzer, 2000). By historical standards, the unrestrained efforts of Governors Allen and Gilmore and board members, like Rocovich, to manage university operations represented a significant change in philosophy.

Virginia Tech’s Response

My analysis of interview materials suggests that President Steger and his administration perceived increasing assertion of control from Board members and state government as a threat to Virginia Tech’s autonomy. This perception was manifested in
adoption within the university of the language and ideas that permeated the state political environment. If Virginia Tech administration perceived that state officials were trying to increase centralized control in order to effect their versions of efficiency and cost-reduction, administrators may have actively pursued strategies that appeared to evidence compliance in order to preempt further efforts to increase control. I believe that President Steger responded by framing university actions in ways that appeared to external audiences to be moving the university towards a more self-sufficient, cost-efficient, entrepreneurial, and innovative model.

Retrenchment and Reinvestment

The university’s response to the retrenchment in 2002 provided President Steger with a significant opportunity to display Virginia Tech’s support for the values that had been espoused by state level officials. While Steger worked diligently to minimize the size of the cuts for higher education and Virginia Tech in particular, he reframed them as an opportunity once he was certain that he had done all he could to limit their magnitude. In implementing the budget reductions, university administrators were careful to keep intact programs and initiatives that were entrepreneurial, especially those that had the potential to increase research expenditures or create revenue for reinvestment in other programs.

One strategy used to safeguard these areas was the reversion to central funds of more budget than was required to meet the state-mandated cuts. This gave the university a pool of funds that could be redirected to projects and programs that were perceived to be of high priority. In a letter to the university community describing the process for reinvesting these funds, President Steger commented that,
the reinvestment mechanism will be a primary way to assure that the overall reductions are programmatically strategic and result in net reductions that are not across the board (Steger, 2002b).

Steger’s letter continued by highlighting the core and strategic areas that would benefit from the reinvestments. These areas included the a) library, b) selected undergraduate core curriculum courses, c) the Institute for Critical Technology and Applied Science (ICTAS) (a multidisciplinary research infrastructure), d) the Institute for Biomedical and Public Health Research (IBPHS) (through faculty cluster hires), e) new doctoral programs in the arts, humanities, and social sciences, f) a new Executive MBA program, and g) staff support for buildings constructed with general obligation bond proceeds17 (Steger, 2002b).

The inclusion in the reinvestment strategy of the chronically under-funded libraries and a short-staffed core curriculum signified a commitment by the administration to functions that many members of the university community felt had been too long neglected (Virginia Tech Library Committee, 2001). It also might have drawn attention away from several riskier ventures that were to gain from the reinvestments, like ICTAS, IBPHS, and the Executive MBA program. The two research institutes were attempts to position the university to attract new sponsored research funding. ICTAS published the following on its website:

ICTAS is entrepreneurial in nature. It presents a strong link to economic development for the entire Commonwealth. It is problem oriented with the goal of finding solutions. It provides better resources to solve larger problems and to obtain better results. ICTAS presents a case for advancement of humankind through collaborative research and it represents a strong link between all of the research universities in Virginia (ICTAS, n.d.).

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17 In November 2002, voters in Virginia approved a $900.5 million general obligation bond package for higher education. Of this amount, $95.3 million came to Virginia Tech for new construction and renovations.
This statement could have been written as a response to the view of some state officials that higher education was not contributing to the state economy and was not entrepreneurial.

The IBPHS mission was directed more towards the university’s top 30 goal; it stated that the institute would contribute to research expenditures and that it would help attract coveted NIH funds. It read:

The mission of IBPHS is to enhance the quality and quantity of research in the biomedical and public health sciences at Virginia Tech and to develop innovative cross-disciplinary research efforts in the areas that foster the development of new knowledge. This strategy is in alignment with the NIH Roadmap (http://nihroadmap.nih.gov/) that describes major future funding to interdisciplinary research teams rather than single investigators examining a small slice of a problem (IBPHS, n.d.).

The funding of a new Executive MBA program, which President Steger hailed as being “in the spirit of entrepreneurship” (Steger, 2002b) seemed, at first glance, to be in conflict with the university’s priorities. It was a completely new Master’s program being introduced at a time when the university’s objective was to increase doctoral enrollment. The focus on doctoral students was widely acknowledged as necessary to advance the university’s desire to increase research productivity (Virginia Tech, n.d.d). The Executive MBA program was atypical for academic programs; it was treated more like a sponsored program than a traditional academic program (personal knowledge). The program was required to cover all of its own costs through tuition, and surplus revenue and overhead were to be distributed, consistent with university sponsored programs.
policy, in a way that would greatly benefit the departments involved in delivering the program rather than the university overall (Sorensen, 2004).\(^{18}\)

The reinvestments associated with the budget cuts were easily justified in terms of the strategic plan and the top 30 goal, but President Steger also described the budget cuts in terms that harkened back to the business ethos shaped by Rocovich, Allen, Gilmore, and Warner. Steger seemed resigned to the idea that the budget cuts were coming eventually, and, though the loss of resources was unwelcome, the university would use the opportunity to concentrate strategically its remaining resources. He alluded to this when he talked about Virginia Tech’s purpose in pursuing the top 30 goal:

> Well, there are at work a number of factors that are largely beyond our control happening to the structure of higher education. One is that higher education is going through a fiscal rationalization just like business has gone through. We’re just a little late in the process (personal interview).

Steger’s use of the phrase “fiscal rationalization” was important, as it seemed to imply a reorganization driven by economic and financial principles, rather than academic ones. The mandatory budget reductions that occurred at Virginia Tech were of such magnitude that some form of fiscal rationalization was inescapable. The size of the budget cuts was equivalent to losing all state funding for Virginia Tech’s largest college, Arts and Sciences (VT Office of Budget & Financial Planning, 2002).

**Restructuring To Reduce Costs**

Concurrent with retrenchment, Virginia Tech was pursuing a previously announced academic restructuring. As discussed in the previous chapter, university

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\(^{18}\) Interestingly, Virginia Tech has since approved another Master’s program to run under the sponsored program model. It is a Master of Information Technology program that will be delivered in India. Discussions are currently underway to set up similar mechanisms to offer the IT program in France and Egypt too (personal knowledge).
administrators uniformly indicated that the restructuring was being undertaken to better position the university to acquire new resources. These same administrators were clear also that the restructuring was not driven by the budget cuts; in fact, President Steger indicated that the budget cuts were an impediment to the restructuring process.

Board of Visitor’s rector, John G. Rocovich had a completely different perspective on why Virginia Tech had decided to pursue restructuring. He argued that restructuring was a response to the recurring state budget crises. Rocovich, whose calls for business-like management of higher education have been documented above, viewed the budget cuts as an opportunity to implement some “pruning”. He said:

‘There wasn’t any question about what caused [the restructuring]; it was a reduction in state budget. Had that not happened, there wouldn’t have been any real emphasis to make any changes. I think your biggest problem here is even using the word restructuring…What we did in effect was induce some people financially to take early retirement…So, the restructuring, in reality, was a cost reduction activity (personal interview).

Officially, university administrators did not agree with Rocovich’s assessment of the reasons for restructuring. The official story transmitted from the provost, president, and executive vice president was that the restructuring was internally motivated, not externally-driven. Provost McNamee described the restructuring as an effort to improve the university.

‘Well, I think we’ve tried to be very clear when we were talking about restructuring. What I didn’t want to do is to say that we’re restructuring because of the budget cuts. Because if that were the case, if we were just trying to save money, you might make different decisions than if you are trying to position the university to develop and grow. They really are separate issues (personal interview).

President Steger agreed with McNamee, describing the key factor in the decision to restructure as an administrative appraisal of the state of higher education.
We had been involved in analyzing the future of the institution for several years and in looking at how the university needed to reposition itself in light of major national and international trends, both in the structure of higher education and in the way the disciplines are emerging and converging. It was concluded that we were not properly configured to be able to move the institution the next steps forward (personal interview).

Minnis Ridenour, the university’s Chief Operating Officer, reiterated that the driving force for the restructuring was the newly approved strategic plan. He indicated that the university had hired consultants to look at Virginia Tech’s existing structure, resources, and opportunities and to recommend a new structure that would enable the university to fulfill the goals in the strategic plan. When asked, Ridenour asserted that these consultants were never charged with looking for cost-savings or efficiencies but were solely focused on identifying a “leadership structure” that could “really move this university forward” (personal interview).

Rocovich was not alone in using language that indicated the restructuring had economically-derived motives. A faculty member from the College of Liberal Arts and Human Sciences employed even more direct language when she compared the national higher education arena to a competitive business market:

it just made sense to me, you know, and my take on it was the idea of sort of in the economic or business world where you have these kind of corporate buyouts and shake downs and things get agitated and then from that you have the insti or the businesses that survive and the mergers that take place and they go on to achieve whatever they are trying to achieve, hopefully successfully, and the others are kind of left behind. They might survive; they might fail.

And he [Steger] really seemed to explain his take on what was happening in higher education that way, but he wasn’t making it up. He was really observing what’s going on in the institutions to which we aspire to be like, with which we had aspired to compare ourselves. And so, if you look at what they are doing and how they are acting, then if it is likely that those are the institutions that would be getting a research grant, that would be getting the international opportunities—consultancies, the prizes to the faculty, whatever the rewards are that you think you need to thrive and survive—he wants to be on that and like in at the top.
As he expressed it, he envisioned that lots of institutions will still exist but they’ll have mainly a teaching mission and role, so there will be graduate education still going on, undergraduate education still going on, but a much smaller set of high powered institutions would be truly having the capacity to do the research. And that’s kind of like the rich got richer (personal interview).

The restructuring and budget cut processes did overlap; whether the two were completely separate events or were completely integrated depended on perspective. Perhaps the best evidence to support the idea that the restructuring was not spurred by budget cuts was the timing. The restructuring was announced in advance of the budget cuts; however, there were numerous warning signs that cuts were pending, including a succession of reports indicating that revenue collections were not meeting targeted forecasts (Bennett, 2002; Forbes, 2001). Administrators like Ridenour, who had nearly 30 years of experience dealing with the state budget process, probably knew before the restructuring process began that budget cuts were inevitable.

University as Business

Separating administrative decisions made for internally-motivated, academic reasons from those made for financial ones is difficult, especially when university planning may be guided as much by political and economic principles as academic values. Virginia Tech’s decision to restructure was perceived by different stakeholders either as a way to meet strategic goals or a way to reduce costs or both. Trying to distinguish between the two may prove a false dichotomy; if the strategic goals of the university were developed in an environment influenced by politically-derived calls for self-sufficiency and efficiency-driven decision-making, then these two explanations for restructuring may be inseparable.
More deeply, the social construction and institutionalization within higher education of concepts from the business sector might lead academic leaders to incorporate these values into their planning activities. Even if the assumptions and rhetoric of a planning exercise appear to be grounded in academic values, institutionalized constructs from the business lexicon could limit the range of potential outcomes. Language more commonly associated with for-profit ventures and capitalistic markets was ubiquitous in university publications and interview transcripts that I reviewed for this research. In the section that follows, I document some of this usage from the interviews I conducted. Frequently, informants appeared to use business jargon without much consideration of its implications; at other times the usage seemed to be very deliberate. Regardless of its usage, I believe that the more invasive this business jargon becomes in the daily operations of the university, the more acceptable the correlated actions (e.g., cost-base decision-making) become as potential tools in university administration. This possibility is supported by the literature on the processes of institutionalization (Zucker, 1977)

*The Language of Business: Cost-savings and Efficiency*

The use of cost-saving as a criterion in administrative decision-making processes can serve an important purpose, allowing an organization to achieve more within its given resource base; however, when cost becomes a substitute for more comprehensive criteria, like quality, effectiveness, or even cost-effectiveness, then it can have negative programmatic repercussions. Independent of the position of the key informants I interviewed, there was an implicit attention to constructs of cost and
efficiency. These constructs were assumed to be guiding principles of the restructuring, and, more broadly, all university operations.

The focus on cost and efficiency did not arrive at Virginia Tech with Charles Steger’s administration. The former dean of the College of Arts and Sciences, Robert Bates, recalled initial discussions about splitting his college into several sub-units. The discussions arose out of recognition that Arts and Sciences had grown too large for its existing administrative structure. Functionality, then, was the reason these conversations about restructuring began, but other factors later entered the discussions. Bates recollected that:

…those conversations kind of happened and I think one of the, probably, prime drivers in these kind of restructures, were through the [19]90s when we were undergoing a lot of restructuring at the university and wanting to be more efficient and effective.

You’re also always looking, you know, at what point do you gain by being a larger college or what point do you gain by organizing a group differently. So I think that was, you know, that was behind it (personal interview).

Despite an acknowledged need to review the structure of the College of Arts and Sciences, no significant changes were made until after Mark McNamee arrived in Blacksburg as provost and Robert Bates had departed to become provost at Washington State University. When Steger and McNamee announced that the restructuring effort would be broadened to include areas outside of Arts and Sciences, they had only a brief window of time before the state budget crisis seized the entire campus. If pending university budget cuts were not the initial reason the university pursued restructuring, they still appeared to play a role in the process. Steger described retrenchment as a hindrance to the restructuring process, but insisted that the two phenomena remain separated.
I would have restructured regardless of the budget. You know, the budget cut made it harder in it prevented us from doing some things that we probably would have liked to have done, but they really are to a large extent, independent… We don’t have time to waste to move the institution forward. The budget business was sort of, you know, I won’t say out of the blue, but the magnitude of it was a surprise to everybody. We just couldn’t wait to do the restructuring (personal interview).

By Steger’s account the restructuring was so important that it had to proceed in the face of the budget cuts. Provost McNamee agreed that the budget cuts did not cause the restructuring, but he acknowledged that retrenchment might force Virginia Tech to make some tough decisions. He described the budget cuts in mixed terms:

Trying to line things up so you can get better in a time of budget reductions, sometimes it’s hard to do that. On the other hand, when you are having to reduce budgets, it’s sometimes easier to make difficult decisions than it is when things are just running along with pots full of money coming in. ‘Cause then you tend to buy yourself out of problems, and you add new things. Instead of changing something, you just add something new and you just postpone the need to restructure. So, here we really have to deal with [the problems]…we didn’t do [restructuring] for the purpose of saving money. I know that seems a little contradictory, but it’s really the way to look at it (personal interview).

The budget cuts or the institutionalized attention to cost and efficiency were influential to the restructuring even if they were not its primary drivers. Plans that would have increased the number of colleges or the number of administrators were not perceived as viable within the university community. The inclination of the Board of Visitors, if represented by Rocovich’s highly visible opinions, and the feeling that any administrative accretion sent the wrong message to the state legislature, ended up influencing the final college structure, at least by some accounts.

Speaking of the short-lived university structure approved by the Board of Visitors in June 2002 (VT BOV, 2003b), Joseph Merola, the Senior Fellow for Restructuring,
indicated that this “plan holds promise for savings by consolidating various services” (Elliott, 2002b). He explained:

We are asking various colleges to behave as consortia, and these units will share administrative structures below the level of dean. For example, there probably will not be four different curriculum committees, or perhaps undergraduate advising might be shared. It is quite likely that graduate programs will be shared across colleges through the consortia. It is an opportunity to streamline and allow colleges to work together (Elliott, 2002b).

If the plan had the potential to save money through shared resources it apparently was not enough, especially after the severity of the budget cuts was revealed. So, the restructuring plan was revamped to decrease the number of colleges. James Bohland, the interim provost prior to Mark McNamee’s arrival, felt that the university structure was altered in the final proposal due to a perception that the Board of Visitors was skeptical of any plan that increased the number of colleges:

The problem with just splitting Arts and Sciences is that you now create a new college. And that is not going to get by the Board, particularly now. As that year unfolded, with the budget cuts, to create a whole new college, with administrative positions, is not going to fly.

So the whole idea of restructuring was then repackaged to the board by the senior administration and pitched as a budget cut. It would go from 8 colleges to 7; I guess it would reduce the number of colleges by one. And, as you probably know, the first cut at restructuring actually increased the number and the board said, “I thought you were going to cut it?”

So, they had to go back and redo it. So, you know in some sense, the board was involved and the board bought into the idea of restructuring early on, but it was not initiated by the board. It was presented to the board by the senior administration, and I think, to some extent, Mark McNamee saw this as a first attempt at kind of rationalizing the College structure to fit more the strategic plan and research (personal interview).

The dean of the new College of Liberal Arts and Human Sciences, Jerome Niles, confirmed that the final structure of his college was primarily determined by financial considerations rather than academic ones. He said:
Well, I know it was about money because it would cost you about 1.75, it would cost you about a million and three quarters to put together a reasonably functioning Dean’s office. So, that’s what they, the university, would have had to come up with to make Liberal Arts a free standing college.

Well when you are going in the opposite direction with money you can’t come up with a million seven five and say, “okay we’re going to have this new college”. That’s pretty difficult to do. And so by combining this college, this college meaning the Human Sciences and Education that already had an administrative structure, with Liberal Arts who needed an administrative structure, the university was able to affect very significant cost savings.

Now, given the other decisions that had been made to have a College of Science etcetera, there was enough difficulty then finding the resources. There were not really adequate resources to start the College of Science and fund an augmented administrative relationship or administrative structure for Human Sciences and Ed. I must say though that the university, in my judgment, worked very hard to provide Human Sciences, I’m sorry, Liberal Arts and Human Sciences with at least some additional resources to supplement the structure, the existing administrative structure, so that we had a chance. We were able to expand student services and our fiscal management services, ’cause you have to take care of your students and you have to take care of your money, and we were able to do that. They gave us enough money to do that (personal interview).

President Steger agreed with Niles’s assessment, stating “…we probably would have two colleges instead of one, but there was a cost issue there” (personal interview).

Ironically, a humanities faculty member saw in the merged college some inherent inefficiency. She said:

There have been some things that have been very difficult, like how we are going to handle P and T.\(^{19}\) In my opinion, it’s a terrible error what we’ll be doing which is, there will be one person from each department, so there will be like 15, 16, 17 people on this P and T committee, maybe more. And they’re all going to be deciding all of the cases. It’s not an efficient way to be doing business, I don’t think (personal interview).

If a faculty member in the College of Architecture and Urban Studies was correct, the actual costs saved and efficiencies gained through the restructuring might have been less important than the message the exercise sent to Richmond. He said:

… I think we used what we were doing as demonstration to the legislature that we were, you know, serious about lowering administrative costs, but I don’t think

\(^{19}\) Promotion and tenure
the legislature said, “you guys need to restructure yourself.” You know, for a school our size having, at that time, eight colleges, is pretty small, pretty tight (personal interview).

John Rocovich felt that restructuring was a step in the right direction, but he did not think enough had been done. In fact, he objected to the use of the word “restructuring,” calling the process more of a “shuffling” (personal interview). Rocovich expected more substantial changes would be required for Virginia Tech to make its top 30 goal. Harkening back to his metaphor of the university as a fruit tree in need of pruning, Rocovich said:

if we are going to go from being a very good university to a great university, you have to focus on your strengths. It’s like a, in running a business, you work on your divisions that are either top divisions or can be top divisions and you eliminate the ones that can never be successful.

I mean, for example, take the broad field of liberal arts in general. To have your department top ranked is almost impossible no matter how much money you spend. There’s a small club of schools that control that. The Ivy League schools and some of the others and they’re the ones that rank everybody and they rank each other and they’ve controlled that.

You can look at a place like Texas which has had billions to spend, and the University of Texas has spent hundreds of millions of dollars trying to sort of break into the club, and they will never make it. Because, you know, the system is set up to take care of the ones that are in there and keep everybody else out. So, you could spend an unlimited amount of money in the liberal arts area and Virginia Tech would never be highly ranked there.

We need strong liberal arts to turn out highly qualified graduates and the departments need to have high quality, but, they do no funded research, so you don’t get any recognition there and they have to figure out where their niche is (personal interview).

Business Models: Revenue and Self-sufficiency

Rocovich seemed to be resolute in his beliefs about the changes necessary to make Virginia’s public colleges and universities fulfill their responsibility to the state’s taxpayers. Reducing costs, cutting duplicative programming at the state level, and becoming more self-sufficient by identifying alternate revenue streams for university
operations are each strategies he had supported. At least two contemporary examples, apart from Virginia Tech’s restructuring, indicated that Rocovich’s values, if not his specific ideas, had earned saliency, if not credibility, in Virginia’s higher education system.

First, as previously mentioned, Virginia Tech had joined with two other institutions—the College of William and Mary in Williamsburg and the University of Virginia in Charlottesville—to seek status as a chartered university. This status would lead to greater flexibility in university operating procedures. Universities included in the legislation would be able to exercise greater control of their self-generated financial assets and to make their own decisions about vendors, personnel administration, and various other processes. In exchange for this increased autonomy, chartered universities would forgo portions of future funding increases from the state and would agree to negotiated accountability measures.

John Rocovich suggested that one of the real advantages of the charter university legislation would come from avoiding what he characterized as an excessively bureaucratic state oversight process for university financial operations. He described the potential benefits:

Hopefully, we will have reasonable control over our tuition and cost. So, if we can just get out from under that 92 step review process, if we’re able to run our own business, we can be more efficient, save money, and deliver more to our students and to our state, and that makes eminent good sense and so we ought to be doing it. But I think it’s been good stewardship to figure out what can we do to do a good job, save the state money, keep our costs down.

As you know, among state institutions we’re number 15 out of 15 in total costs to attend for undergraduates. Among our peer group of 23 around the country, we’re something like, 23 out of 23, so we’re delivering a very cost effective education. And, we’re trying to be cost effective and it’s working (personal interview).
The second example was an extreme instance of the self-sufficiency in public higher education that some prominent elected leaders had desired. The University of Virginia, the state’s flagship university, transitioned its two most renowned schools to operate without state funding in 2003 (Goodman, 2002). The professional programs of the University of Virginia’s School of Law and its Darden School of Business, seeking more control of their operations and a more stable funding base, decided to eliminate their use of state dollars, instead relying on tuition revenue and the private foundations that fundraise for them.

If pursuit of the charter university legislation and the research funding imperative is an indication, Virginia Tech seems prepared to follow the lead of the University of Virginia in identifying self-sufficient models of operation; I posit that the only deterrent is its financial strength. The University of Virginia has a substantially larger private endowment to support its operations, and the two schools that have privatized are among the top schools in the world in their respective subjects. At present, Virginia Tech does not have the resources or the ability to acquire the resources to reach self-sufficiency for any of its programs.

Completing the Transformation

At Virginia Tech, a business ethos of management and leadership has developed under the influence of political agendas, financial insecurity, and public pressure to increase accountability. Moving university operations toward a more business-like model seems to have moved beyond political rhetoric and into reality. Efforts like the university’s focus on obtaining external research support, the restructuring, and charter legislation, seem to indicate that the traditional university will soon be replaced by one
with a new set of guiding principles grounded in economic realities. There are voices within higher education, especially in the faculty, that continue to argue that Virginia Tech should be careful not to abandon the values of academic freedom, liberal education, access, outreach, and basic scholarship and research on which it was founded. Until that voice is overcome more completely, the transformation of Virginia higher education into another sub-sector of the market economy will remain incomplete.
CHAPTER 6: THEORETICAL SENSEMAKING

Academic restructuring has been described in the higher education literature as a behavior of a primarily legitimacy-seeking purpose (Gumport, 2001; Gumport & Pusser, 1995). Legitimacy, especially when defined by external constituents, may be at odds with an organization’s historical mission or its internally derived strategic plan; the Virginia Tech case presented a unique opportunity to explore this potential incongruence. I posited that a restructuring designed to produce external legitimacy—consciously or not—might lead the university off course. It was this premise that led me to my two main research questions.

Research Question #1: What did administrators perceive as the major influences that prompted the decision to restructure Virginia Tech?

My research identified two factors that contributed to Virginia Tech’s decision to restructure. The first was that the university restructured to leverage its existing resources in order to reach its strategic goals. The second was that university administrators developed the restructuring as a signal to its stakeholders of compliance with an informal mandate to operate more like a business. Undoubtedly, a combination of factors, internal and external, contributed to Virginia Tech’s decision to restructure. I do not believe that a single motivating factor existed, nor do I believe that a different researcher would necessarily have arrived at these same two conclusions; however, I believe that there is substantial evidence to support the contention that both of these themes were at work to some degree in the decision-making process. This evidence was provided in Chapters 4 and 5.
Research Question #2: Is organizational legitimacy, a construct from neoinstitutional theory, useful in interpreting the restructuring events and the future of the university?

My theoretical bias going into this research was to believe that neoinstitutional theory provided the most appropriate framework for understanding Virginia Tech’s restructuring. During the research process, I discovered that the restructuring itself was not understandable unless it was viewed as a manifestation of the top 30 goal. As such, I spent a considerable additional effort trying to document the factors that led to the genesis of that specific goal.

What I found was that concerns about the financial stability of Virginia Tech led university leaders to seek additional revenue streams that could supplement fluctuating state appropriations. The derivation of organizational strategy from a perspective of resource acquisition was not immediately explainable via neoinstitutional theory. This disconnect led me to explore other theoretical frames. Adaptation theory, specifically resource dependency theory, was extremely relevant (Hall, 1999; Pfeffer & Salancik, 1978); the basic principle of this theory is that “firms will act in self interest, trying to gain access to, and ultimately control over, needed resources” (Cecil, Green, & McNaughton, 1996, p.132). In the section that follows, I review some of the major tenets of resource dependency theory and compare them to my findings concerning restructuring at Virginia Tech.

Resource Dependency Theory

This theoretical perspective assumes that management decisions are influenced by the values and backgrounds of the managers who make them. This is an important
consideration in the Virginia Tech case. One of the key leaders of the university’s restructuring was its new provost, Mark McNamee. He came to Virginia Tech having recently overseen a significant restructuring of the biological sciences at the University of California, Davis. Having been through a restructuring recently, and receiving praise for his handling of the process and outcomes (Wright, 2000), McNamee’s values and recent experience would have favored restructuring as a viable option for Virginia Tech.

The decision to hire McNamee, a known architect of a successful restructuring, may suggest that Virginia Tech’s existing administration favored this approach before his arrival. John Rocovich, the vocal rector of the Board of Visitors, had clearly indicated his desire to have the university move in a direction that was more self-sufficient, and he had offered restructuring as a suggestion for how to achieve this aim (Rocovich, 1999). Minnis Ridenour, the university’s Chief Operating Officer, indicated that the administration had hired consultants with the specific charge of identifying a structure that could better enable Virginia Tech to reach its goals. This openness to restructuring appears to have set the stage for McNamee to come to Virginia Tech to assume responsibility for a restructuring process.

More than McNamee even, the real champion of the restructuring appears to have been Charles Steger. He was influenced by Rocovich, Ridenour, and others, but he was credited with articulating the top 30 goal and seems to have known that a restructuring was coming before McNamee came on board. Steger said that he had not hired McNamee specifically for his restructuring experience, but he said he was looking for “a seasoned academic administrator who had experience creating first rate
programs” adding that “anybody that has that length of experience has been through some version of it [restructuring]” (personal interview).

Resource dependency theory makes the following four statements about the actions of managers in organizations: a) managers make decisions with an ultimate eye toward organizational survival, b) survival is equated with the acquisition of new financial resources, c) managers seek to minimize external dependencies, and d) management strategies seek to capitalize on existing organizational competencies to exploit environmental conditions (Pfeffer & Salancik, 1978; Tolbert & Zucker, 1994).

There is strong evidence at Virginia Tech that each of these assertions was manifested in the restructuring effort. First, President Steger was very careful in his explanation of the top 30 goal to frame it as necessary for survival of the university in its existing state. The entire strategy of reorganizing the university to improve its capacity to attract external research grants and contracts seems to be closely aligned with the basic assumptions of resource dependency theory.

Second, Steger and other administrators focused on financial resources almost exclusively. Defining the top 30 and research goals in terms of the National Science Foundation rankings was an indication to the university community and its stakeholders that increasing revenue streams took precedence over all other measures of success. Only when it became apparent that a narrow definition of top 30 status would incite negative reaction on campus did the administration make public efforts to include more comprehensive measures of quality scholarship, outreach, and teaching. Even then, the degree to which other factors were actually considered remained questionable to some faculty members.
Third, resource dependency theory suggests that decisions will be made that attempt to minimize external dependencies and reliance on other organizations (Kraatz and Zajac, 1996). Citing a perception that the state could no longer adequately fund the university, administrators and faculty viewed a research focus as a way to become more self-sufficient, decreasing the dependence on state appropriations that had fluctuated in recent years. The pursuit of charter university status, though not directly related to restructuring, also signaled that Virginia Tech was seeking models of operation that reduced its reliance on state funds.

Finally, resource dependency theory postulates that organizations will exploit existing competencies to acquire new resources. At Virginia Tech, historical strengths in agriculture, the life sciences, engineering, and computing were at the core of all scenarios that were expected to produce significant new research funding. As previously discussed, this led to a perception that the liberal arts departments were being further marginalized by the university and could not contribute to the university’s aspirational goals in a meaningful way.

The arguments for Virginia Tech’s restructuring so neatly mesh with the basic tenets of resource dependency theory that it is important to understand what the theoretical outcomes of such an approach to university management entail. The two most relevant postulates of resource dependency theory for this study are that organizations will focus their efforts on gaining legitimacy with the external group that holds the most resources and that the variability of managerial experience will lead organizations to pursue different strategies to acquire resources, eventually leading to greater diversity among organizations. In the case of the former prediction, this may
mean that Virginia Tech’s future structure and focus will be greatly influenced by the organizations or groups from which the university hopes to attract the most resources. The second relates more to the broader field of higher education, and it predicts that institutions of higher education will become more diverse in light of complexities in the environment. At an organizational level, the pursuit of resources through legitimacy-seeking behaviors through unique behaviors determined by an organization’s management would likely lead to a displacement of the organization’s historic mission.

**Neoinstitutional Theory**

Neoinstitutional theory differs from adaptation perspectives, like resource dependency theory, in that it suggests organizations have less control over their actions. Whereas resource dependency theory predicts that managers will make decisions that allow their organizations to acquire resources from their environment, neoinstitutional theory predicts that managers are only able to make choices that are acceptable within their organizational field. As Meyer and Rowan have argued,

> Organizations are driven to incorporate the practices and procedures defined by prevailing rationalized concepts of organizational work and institutionalized in society. Organizations that do so increase their legitimacy and their survival prospects, independent of the immediate procedures (1977, p. 340).

Acceptability of organizational actions is determined through the processes of institutionalization and social construction (Berger & Luckmann, 1967; Tolbert & Zucker, 1994; Zucker, 1977). The limitations defined by prevailing norms may favor decisions that lead to a de-emphasis of internally-derived goals and objectives and an emphasis on behaviors seen as legitimate within the field. Access to resources is the expected reward for attaining legitimacy in the field. The acquisition of these resources guarantees short-term survival, but it has the potential to shift an organization’s focus
from its historical mission. Thus, a new organizational structure may guarantee survival, but it may have very little to do with performance. Tactics that are described as strategic by those that invoke them have been called “false fronts” because of the importance of their perceived efficacy rather than their real value (Edelman, 1992).

DiMaggio and Powell (1983) identified three mechanisms of isomorphism that they argued would cause diversity to decrease within an organizational field. The most relevant of these mechanisms to legitimacy-seeking behaviors at Virginia Tech are coercive mechanisms. Coercive mechanisms can include the induction of behavior through formal power relationships, but they also include informal mechanisms like the pressure to choose from institutionalized, socially-acceptable management decisions. At Virginia Tech, university administrators appeared to be restricted to a limited number of options based on their perceptions of the values and agendas of board members, state legislators, and other politicians that higher education needed to reduce costs.

Whether resource dependency theory or neoinstitutional theory is more helpful in describing the case of restructuring at Virginia Tech is unclear. But, while the theories diverge on their predictions for the field of higher education, they do share a common expectation for the future of Virginia Tech. Both perspectives predict fundamental changes in the university’s focus. Resource dependency theory attributes this to the pursuit of external resources dictated by the availability of funds in the environment. In the case of Virginia Tech, this may mean that limited resources for teaching and outreach refocus the university as a research university without its accompanying traditional comprehensive dimensions. Neoinstitutional theory predicts that the social constructions and institutionalized ideas in the organizational field will lead Virginia Tech
to choose a path that is acceptable to its field. Increasingly, this appears to be a business approach to university management that values the capacity to generate revenue and operate efficiently over academic goals. This too may mean Virginia Tech will increasingly devalue, at least implicitly, its non-research functions and programs.

In Chapter 5, I provided evidence that university leaders had adopted language consistent with the concepts of academic capitalism. This language had been promoted by politicians and embraced by the general public. As business terminology became more pervasive within the field of higher education, Virginia Tech administrators ran the risk of losing legitimacy by not adopting this language themselves. In the case of the restructuring, it appears that administrators reframed their plans for the Board of Visitors in terms of cost-savings and efficiency. Whether their compliance with the dominant business discourse of the Board of Visitors and state government leaders was genuine or merely a symbolic gesture may be irrelevant for the future of the university. The replacement of academic values with business ones, for whatever reason, may help to accelerate in the state higher education system the social construction of universities as businesslike entities. If that happens, it will become more difficult for Virginia Tech to maintain a focus on academic quality and liberal education due to emphases on entrepreneurial, professional, and revenue-producing programs.

Theoretical Distinctiveness

Some authors have noted “a lack of theoretical distinctness” between resource dependency theory and neoinstitutional theory (Tolbert and Zucker, 1994, p. 13). During this investigation, I also often came to believe that these two theories had considerable overlap. In resource dependency theory, managers manipulate the environment to
acquire resources; this may involve engaging in legitimacy-seeking behaviors (Suchman, 1995). Neoinstitutional theory may lead to the same exact behaviors, but it suggests that managers are more passive and that the environment determines the behavior.

Since it has been suggested that structures have symbolic as well as “action-generating properties” (Tolbert & Zucker, 1994), the adoption of a new structure at Virginia Tech could have either strategic or symbolic purpose or both. If the rationale for change was strategic, meaning that the structure fulfilled the stated goal of leveraging the university’s resources to attract additional resources from the environment due to increased collaboration and synergy, then resource dependency theory provides a better explanation. If the structure serves primarily as a signal to external audiences that the university has changed to reflect prevailing norms, thus enabling it to attract resources more effectively due to its conformity, then neoinstitutional theory would be a more appropriate explanation (Brown, 1994). Some resource dependency theorists allow for the possibility that symbolic actions might serve legitimating functions. In that case, resource dependency theory may be useful in understanding the symbolic aspects of the restructuring too.

Questions of Agency

Nevertheless, the two theories remain distinct in their understanding of managerial control. Resource dependency theory recognizes in managers the power to change or exploit the organization’s environment, while neoinstitutional theory emphasizes an environmental determinism. The predicted outcomes differ based on this criterion. If managers have the power to influence their environment, then a
diversity of managers allows for a diversification of organizations due to differential responses to resource pressures. If the environment limits the choices from which managers must select their actions, then acceptable behaviors will be the same for all organizations in the field, leading to a condition of institutional isomorphism (DiMaggio and Powell, 1983). The neoinstitutional approach has been criticized for its portrayal of organizational managers as passive participants in environmentally-controlled organizations (Kraatz & Zajac, 1996).

Pfeffer and Salancik (1978) suggest that organizations with products that are not visible or are difficult to assess are less likely to be forced into compliance by external social constructions. The products of universities are notoriously difficult to measure, especially in terms of student learning. This may help to explain why external actors have sought repeatedly to define for Virginia Tech performance measures, accountability standards, and benchmarks; the definition of outcomes proposed by Governor Gilmore’s Blue Ribbon Commission on Higher Education is an excellent case in point. To date, colleges and universities in Virginia have been able to argue that a standardized measurement is inappropriate due to institutional and student diversity. The lack of clear measures may also explain why colleges and universities have been able to diminish threats to their relative autonomy, even in the face of numerous attempts by state officials to increase their levels of control over university operations.

A Blended Approach

I am unable, based on this research alone, to say with certainty that resource dependency or neoinstitutional theory provides a more satisfactory explanation for the restructuring at Virginia Tech; however, I believe that the case draws attention to the
lack of distinctiveness of the two models. As such, I am compelled to attempt to reconcile these two theoretical perspectives. I propose the following combinatorial model as a way to explain what appears to be a critical divergence.

Originally, I had defined Virginia Tech’s institutional field as inclusive of all higher education institutions in the United States, plus any agency, organization, or government body with which these institutions were required to interface on a regular basis. My conclusions were limited by the scope of this institutional field. In discussions following my analysis, it was suggested to me that higher education may be comprised of numerous subfields and that different processes could be occurring on the field and subfield levels. Thus, the actions of organizations competing for the same resources due to their overlapping core competencies or technologies might be explained by resource dependency theory, and the actions of organizations influenced by the same dominant discourses might be explained by neoinstitutional theory. In this way, a more complex institutional field, with multiple layers and subsets could be defined.

An organizational field of more complexity would allow for isomorphic mechanisms to act within a subfield but would have the potential to increase diversity though differentiation of the subfields and/or the definition of new subfields. The end product of this hybrid model would be a clustered, heterogeneous organizational field defined by pockets of homogeneity. I think this may be a productive way to view the field of higher education. For Virginia Tech, this clustered model might predict a future in which it shares many characteristics with another research-oriented university in the Commonwealth of Virginia (e.g., Virginia Commonwealth University) and is strikingly different from a liberal arts college in a state with a political tone and discourse that
differs from Virginia’s. Future research testing this concept would have the potential to redefine the boundaries between resource dependence and neoinstitutionalist traditions.

Mission and Historical Purpose

If the shifts in core values and technologies that both theoretical perspectives predict occur at Virginia Tech, it will be hard to track without a more longitudinal look at the university’s activities. Both resource dependency theory and neoinstitutional theory predict a de-emphasis of the land-grand university traditions of accessibility and outreach and the state university values of comprehensiveness, civic education, and quality teaching. The replacement of these traditions and values with more politically expedient ones, like profitability, efficiency, and entrepreneurship begs the question of whether Virginia Tech will still be able to uphold adequately its social contract to educate Virginia’s daughters and sons. The replacement of the basic teaching function with enhanced roles as “an engine of economic development” and a state-subsidized research laboratory would be one manifestation of a shift in the university’s core technologies (Hearn & Holdsworth, 2002).

This may seem like a preposterous or radical conclusion, but consider the following. In one of his regular classes, a professor interviewed for this study asked his Virginia Tech students what they perceived to be the university’s top priorities. The results were interesting because they not only indicated that athletics was perceived to be the university’s highest priority, but they also indicated that even undergraduate students understood that research and funding were considered extremely important by the university administration, coming in third and fourth respectively. Student education
and quality of faculty and teaching were second and fifth. Though only an informal poll, the results of this exercise indicated that students perceived an odd mix of academic and nonacademic priorities to be charting the future of Virginia Tech (personal communication, 6/14/04).

A worry that Virginia’s higher education institutions have not remained focused on their traditional roles is not foreign to college and university administrators or state-level officials in Virginia. In 2003, the State Council of Higher Education for Virginia published a study it had commissioned at the request of the state legislature that attempted to determine the degree to which state higher education institutions had shifted their missions. The study found that:

Virginia’s public colleges and universities have responded well to these contemporary challenges and opportunities, while resisting, to a great extent, real changes in their core missions. Since the mid-1990s, our public institutions have kept their core missions rather constant and consistent, while occasionally adjusting and/or adapting either: (1) the “what” (the various academic subcomponents) of their overall missions; (2) the “how” (the various structural, processual and/or pedagogical means) of achieving their overall missions; or (3) the “for whom” (the various levels of admission selectivity and/or enrollment totals) of their overall missions in order to meet the needs of the world/nation/state, their regional/local areas and their students. In the process, they have worked to overcome both the unique and the common challenges that they individually and collectively face, and to maximize opportunities to better position themselves—and the Commonwealth—for the future (Edwards & Finnegan, 2003, p. 13).

While this study may have eased the minds of some leaders, I believe that the study’s emphasis on written mission statements may have understated the problem. Universities are unlikely to remove from formal mission statements their historical or traditional missions. The SCHEV study concludes that substantial mission drift has not occurred in Virginia; however, I have documented a shifting of priority given to the core technologies at Virginia Tech. If mission drift is not occurring in institutions like Virginia
Tech, then there is a need for terminology that describes the phenomenon in which university priorities were ranked differently. I have adopted the phrase mission displacement to describe this more subtle change in organizational technologies, priorities, and values. Even if I accept Edwards and Finnegan’s assertion that mission drift has not occurred in Virginia (2003), I have provided evidence that in this case leaders and politicians were able to influence the relative importance assigned to the core values and technologies in higher education institutions. The political and social expectations of these actors have the ability to change rapidly depending on any number of factors.

History may provide an interesting example of how socially-defined expectations can cause a mission displacement. Virginia Tech was founded in the spirit of the agricultural and mechanical college, with a very utilitarian focus. When the dominant discourse shifted away from “useful” purposes and back to liberal and comprehensive education, Virginia Polytechnic Institute made efforts to become a comprehensive institution. In 1970, the school’s name was legally amended to include “and State University” (Wallenstein & Kennelly, 2001), and a corresponding establishment of departments in the traditional liberal arts disciplines followed. The success of this effort is difficult to judge; enrollments at the university increased substantially after the transition to a more comprehensive institution. John Rocovich, the rector of Virginia Tech’s Board of Visitors during much of the restructuring process, perceived the modern incarnations of these liberal arts departments to be of lesser quality and importance than Virginia Tech’s traditional strongholds of engineering and agriculture (personal
interview). Although Rocovich was replaced as rector in 2004, his viewpoint appears to be increasingly dominant in Virginia Tech’s field of action.

Generalizability

As this research is a case study, its independent value in interpreting phenomena in other universities is limited; however, taken together with the research of others in the field (e.g., Slaughter and Leslie, 1997) and the observations of leaders of top American universities (e.g., Levine, 2001; and Bok, 2003), it is difficult to argue that the influence of resource scarcity and the ethos of business that has been advocated by politicians is unique to Virginia Tech. My goal in this research was to add to the broader discussion of these trends in higher education.

Despite a limited ability to generalize from this case, anecdotal evidence from the broader field of higher education supports the idea that universities across the nation are facing similar pressures to those seen at Virginia Tech. For example, at the nearby University of Kentucky, the state legislature adopted a bill in 1997 that mandated that institution become one of the top 20 public research universities in the country by the year 2020, despite university insistence that this status could be defined in multiple ways.

The similarities to Virginia Tech’s recent experience do not end there. In 2002, the University of Kentucky undertook a major restructuring upon the arrival of a new president. The principles that guided this restructuring were identified as: a) better service to students, b) pursuit of national prominence, c) streamlining of administrative structure, d) serving multidisciplinary interests, e) better response to the needs of the Commonwealth of Kentucky, and f) investment in areas of current, established
strengths (Toma, Watt, et al., 2002). The similarity to the themes that arose in the case study of Virginia Tech is striking.

Future Research

More research is required in this area; in addition to new case studies that provide insight into the phenomenon of restructuring and an increasing research emphasis in other organizations, a similar review of other management behaviors that may affect the ability of the higher education field to fulfill its social contract with the public is warranted. I would like to further develop the concept of mission displacement and to determine its theoretical relationship to the established concept of mission drift. Specifically, I would like to document mission displacement over time, and provide insight on whether prolonged displacement leads to mission drift. It is my goal to add to these discussions and to expand my work into other types of nonprofit organizations, where I believe similar environmental pressures may threaten the fundamental differences between nonprofit organizations and for-profit businesses.

Finally, I believe that studies from a theoretical perspective that analyze the similarities and differences between resource dependency theory and neoinstitutional theory will clarify their theoretical distinctiveness or merge them into a single, but more complex, theoretical model. My research agenda will be designed to contribute to this process.

Post-script

Minnis Ridenour, who was a member of my Master’s committee, was one of the people I interviewed for this research. I worked for him indirectly in the Virginia Tech
Budget Office for three years, and he was the member of my original doctoral committee who encouraged me to pursue a case study of Virginia Tech instead of looking at another organization. When I voiced concern about the prospect of reporting findings that might not be appreciated by those affiliated with Virginia Tech, Minnis encouraged me to continue and to report what I found. For a number of reasons, this among them, I view Minnis as having a number of characteristics that I would like to emulate.

Minnis retired from his role as Chief Operating Officer of the university in 2004, but before he left, he told me during our interview session that Virginia Tech’s core values had remained steadfast throughout the restructuring and budget cut processes. When I asked what those values were, he directed me to visit the Pylons at the university’s war memorial. This monument has eight pillars representing the values to which Virginia Tech aspires to subscribe. My visit revealed that the eight pylons represented *Brotherhood, Honor, Leadership, Sacrifice, Service, Loyalty, Duty, and Ut Prosim* (That I May Serve). I know Minnis believed that these values were still at the core of Virginia Tech’s existence. Frankly, I hope that he was correct, but I worry that there may be other values, perhaps ones inappropriate to the academy, that are subsuming those represented at the memorial despite the intention and hopes of many of the university’s leaders.
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"In a qualitative research project, issues emerge, grow, and die…we are trying to remain open to the nuances of increasing complexity" (Stake, 1995, p. 21).

Naturalistic inquiry challenges many of the institutionalized, positivist traditions of the social sciences. Lincoln and Guba (1985) summarize the fundamental difference between the two approaches in five categories: ontological, epistemological, axiological, temporal/contextual, and causal. Underlying naturalistic inquiry are the beliefs that reality is not singular, that the observer and the observed are not separable, that research is never value-free or without bias, that observations are a function of their context, and that linear causality often oversimplifies relationships of cause and effect (see also Berg, 2001; Creswell, 1998; Denzin & Lincoln, 1994).

At the crux of naturalistic inquiry is a recognition that description and interpretation of phenomena within their own context are valuable endeavors. An additional emphasis is placed on the influence researchers have on the results of their own studies. Rather than seeking to generalize from a small sample to a broader population, as does most positivist science, naturalistic inquiry intends to link ideas and theory with empirical accounts of phenomena (Vidich & Lyman, 1994). By concentrating on a small number of cases and providing rich detail about context (Goodwin & Horowitz, 2002), naturalistic researchers empower consumers of the research product to reinterpret the work from their own perspectives (Berg, 2001).

I have approached this research from a social constructionist standpoint (Lincoln & Guba, 1985; Schwandt, 1994), meaning that I recognize that the research I conducted was influenced by deeply ingrained ideas developed through the sum of my individual and shared social experiences. I understand that I brought biases to my work, but I do
not interpret them to be weaknesses; instead, these biases are unavoidable. My responsibility as a qualitative researcher is to “work the hyphen” (Fine, 1994, p. 72) by constantly examining my self-other relationship with the research and subjects. As part of the process of remaining self-aware, I have documented my perceptions of my relationships in field notes and have incorporated them into the research product to contextualize my writing.

**Methodology**

Case study (Stake, 1995; US GAO, 1990; Yin, 1994) was my primary means of investigation. The case study approach to conducting research can integrate multiple techniques (e.g., interviews and document analysis) within the same study. The case study is a method of preference in the constructivist paradigm. It has gained acceptance by the larger research community faster than many other qualitative methodologies, signified by the United States General Accounting Office’s (GAO) promotion of the use of case study in program evaluations. GAO defines a case study as:

> a method for learning about a complex instance, based on a comprehensive understanding of that instance obtained by extensive description and analysis of that instance taken as a whole and in its context (US GAO, 1990, p17).

GAO goes on to justify its reliance on the case method by noting that cases prepared according to GAO guidelines allow for triangulation, identification of all important conditions, and a clear assessment of the validity of the conclusions (US GAO, 1990).

**Case Selection**

My case study of Virginia Tech was based on a single organization, and, excepting comparative work, single cases are the preferred design for most case study methodologists (Stake, 1995). Instrumental case studies provide rich detail about a
particular case, but with the purpose of providing insight into a general question; intrinsic case studies look at the case based on its own merits and the specific interest of the researcher (Stake, 1995). The Virginia Tech case has both instrumental and intrinsic qualities; it is instrumental because one of my goals was to demonstrate the usefulness of constructs from neoinstitutional theory, and it is intrinsic because I have been specifically involved in the organization that I studied and I have a personal interest in the future of the organization.

The restructuring of Virginia was a process I followed from its first public mention until November 2004. The selection of Virginia Tech as the case for my research was based partially on convenience; the time and monetary savings of working in an organization to which I already had access and proximity were considerable. Also, I had a substantial knowledge of Virginia Tech and the restructuring due to my employment with the organization (see Disclosure of Dual Role below). I was encouraged by one of my doctoral committee members, also a high-level university administrator, to pursue this case; he offered to help me gain access to people and information related to the restructuring. Subsequently, this member left my committee due to time constraints, but I believe that I was given an excellent opportunity to develop a detailed case at Virginia Tech that is of a higher quality than I could have conducted at another organization.

Additionally, restructuring is often cited as a primarily legitimating activity (Gumport & Pusser, 1995) and the restructuring at Virginia Tech had all the hallmark signs of an activity designed to obtain external validation of the university’s capacity (Gumport & Chun, 1999). There were several other universities that had recently undergone similar restructurings (e.g., the University of Kentucky), but at none of these
did I have similar familiarity, access, and timing. At Virginia Tech, I was encouraged to pursue development of the case study by both the Executive Vice President and a Senior Fellow appointed to facilitate the restructuring process.

Data Collection

Primary Documents

Data were collected primarily though interviews with key informants, but these interviews were supplemented and verified through the use of primary and secondary documents. Documents included internal, private memoranda provided by research participants; internal public announcements and publications; transcripts and minutes from private and public meetings; and media accounts. I started collecting data related to the restructuring in the fall of 2001, although I was able to obtain some documents from before that time.

Interviews

Even though the unit of analysis for this case study is the organization, interviews of individuals are its primary data source. Researchers frequently address this unit of analysis-data mismatch by selecting interview participants from several different areas of the organization, in effect treating the sum of the individual voices as a surrogate voice for the organization (Gabriel, 1998; Weiss, 1994). Obtaining a dispersed distribution of interviews was one goal of my process for selecting interview participants. I completed five (5) interviews in a preliminary inquiry, and an additional twelve (12) in the research phase; all seventeen (17) interviews were used in the analysis and/or write-up. Figure 16 shows the distribution of interviews by organizational unit (broadly defined).
The interview format was informal and open-ended, but it was guided by a set of standard topics of discussion. This approach lent itself to my study for several reasons. First, the key informants were related to the restructuring in different ways. A faculty member in a relocated department had different things to say than the Provost. Accordingly, a completely standard set of questions would have been inappropriate. Secondly, because I was very interested in the language, symbols, story-telling, and myth embedded in the responses of the informants, I attempted to minimize the degree to which I influenced the use of specific words and phrases. I led the interviewee to topics of relevance with the interview guide, but I maintained the ability to let the interview develop naturally (Fontana & Frey, 1994). Finally, I believe that a more structured interview could have changed the demeanor of the participants in ways that limit their range of responses.

The interview guide was developed using the research questions posed in the preface of this manuscript. In addition, basic information was collected pertaining to the participant’s status and relationship to the restructuring process, university governance, and the administration. Interviews were between approximately forty-five minutes and two hours in length, and they were conducted in the offices if the participants.

Field notes related to the interview were recorded before and after the actual interview, noting the rapport, the level of interaction, and other contextual elements including the existence of prior working relationships between myself and the informant. Limited field notes were taken during the interview as a backup for the audio tape recorded transcript. Participants were given the option of not having the recorder on
Final Interview Distribution

Figure 16. shows the completed interview distribution.
during the entire or any part of the interview, but all interviews were recorded except for
the first interview of the preliminary phase.

**Data Recording**

All interviews were transcribed to an electronic form to facilitate data analysis. All
transcription for the project was performed by me or transcription assistants.
Transcription assistants were required to sign a confidentiality agreement to be retained
by me in perpetuity. The confidentiality agreement (Appendix D) specifies standards of
conduct concerning the handling of confidential information, care of data in the custody
of the research assistant, and destruction of any permanent records.

Original tapes, paper documents, and field notes will be retained in a locked safe in
my home for at least 5 years after the final, approved research product is submitted to
Virginia Tech. When disposal is deemed necessary, paper documents will be shredded
and cassette tapes will be disposed of in a manner intended to make them unplayable.
Electronic documents will be kept in a password-protected format in perpetuity.

**Human Subjects Compliance**

I received expedited approval from the Virginia Tech Institutional Review Board
(June 21, 2002) to conduct interviews in the preliminary inquiry (Appendix C), and a
separate approval (May 31, 2004) for the interviews in the research phase (Appendix
C). Each participant was informed of the risks and benefits associated with their
participation in the interviews; each participant acknowledged this by signing a provided
Informed Consent form (see Appendix C for an unsigned example). In these interviews,
the risks were expected to be very low to non-existent. The only potential risk remains
that information from interviews that is linked with a specific person might cause retribution by other members of the university community.

**Disclosure of Dual Roles**

The circumstances surrounding my research were somewhat unique in that I had been involved in the administration of the university that I studied for almost five years. I had never been a position to influence university-level policies regarding restructuring directly, but my perspective was most certainly influenced by my roles. I worked in two areas of the university prior to and during the research effort, first in the central areas of budget and finance and then in the university’s distance learning offices. As part of these functions, I was in direct contact with many university and college-level administrators. I also had direct access to a wealth of information related to the restructuring that was not publicly circulated. Additionally, my spouse was an employee of the university, working as a speech writer for the university President and developing public relations instruments targeted to numerous university constituencies.

In most interviews, I disclosed my work-related affiliations prior to or during the conversations I had with the participant; in a few cases, where I had not had and did not anticipate future contact with the participants, I did not make this disclosure. I found that most participants were guarded with responses, choosing their words carefully and on several occasions being told the equivalent of what one participant said, “I probably won’t say anything I wouldn’t say if the president walked in” (personal interview). Being extremely familiar with the organization about which I wrote presented some challenges, but it eventually became an advantage, allowing me to make observations that were beyond the scope of my interviews and formal documents (Alvesson, 2003).
It is important for me to disclose that I have excluded from my data any documents that I came into contact with solely through my administrative responsibilities. In several cases, however, when I was made aware of the existence of such data, I pursued its acquisition from another source. I followed this self-imposed rule because I found an ethical conflict in using my employment-related access for personal research. Finally, because of my spouse’s role in drafting official correspondence and speeches, I excluded from my data any documents she has touched, even if it was just in a proofreading or editing role.

Data Analysis

A characteristic of most qualitative research is that data collection and analysis occur simultaneously. This is important because it can help researchers see trends and patterns earlier in the research process and allow for more in-depth follow-up before data collection ends. This has been referred to in the literature as the “constant comparison data analysis method” (Creswell, 1998, p. 57). I incorporated this practice into my research.

The goals of data analysis in qualitative studies are represented by a three part process; the first goal is data reduction. This involves distilling the vast amount of data collected through interviews and document collection into coded documents in which themes and patterns can be more readily recognized. The second goal is to identify those themes and represent them in matrices, trees, proportions and accounts (Creswell, 1998, p. 143), and the final goal is to draw verifying conclusions. That these stages are linear in my description is misleading. For as Miles and Huberman (1984)
have noted, these stages are really parts of an interactive model with a full complement of feedback loops and Creswell describes the process as a “data analysis spiral” in which the researcher touches on several facets of analysis and circles around and around” (1998, p. 142). Keeping in mind the nonlinearity of this process, I describe my data analysis process briefly below.

The result of a data collection effort like the one I undertook is a mass of tapes, paper, and electronic files including textual versions of transcribed interviews and meeting dialogue. To use this data fully, the researcher must develop a data management system (Miles & Huberman, 1984). Most resources on qualitative data analysis stress the importance of creating a system that facilitates storage and retrieval of information (Creswell, 1984). In recent years, several software packages have become available that assist qualitative researchers in managing their data (Creswell, 1998). Originally, I had planned on doing this management manually, but, on the encouragement of my committee, I opted to use the program NVivo. Once my data were transcribed from tapes into an electronic format, they were reviewed by me for accuracy, converted into rich text files, and stored in electronic folders. The electronic files were abstracted and named to facilitate coding and retrieval.

The data files were read multiple times throughout the analysis process, to reach a level of familiarity necessary to code the files formally (Creswell, 1998). During that process some categories and trends became evident, and these were the foundation for the coding process. In a purely intrinsic case study the coding process may include the accumulation of accounts of events or points relating to the case description. For example, in a descriptive case, the researcher may provide multiple perspectives of a
single event, and the coding would involve marking passages that describe this event from different perspectives or using different language. When writing about the event, the researcher refers back to the coded passages to support her writing/description. I did this type of coding in my analysis, especially as it related to capturing specific differences or similarities in the perceptions of participants.

An instrumental case study may proceed differently, with conceptual categories or constructs predefined. The data are then read with the intent of finding sections that relate to these existing categories. I had preconceived categories related to specific environmental factors that influenced the university’s decision to restructure and to the neoinstitutional constructs for which I was looking for support. As previously mentioned, my approach blended aspects of both intrinsic and instrumental case studies, and this dual approach to coding was necessary to fulfill both the research and documentation goals of the study. Stake (1995) agrees that often there is not a clear distinction between these two types of case studies.

After the first round of coding, I used the NVivo software to assist me in grouping for further data reduction (e.g., clustering). This simplified the process of interpreting the data and organizing it for writing. Creswell describes the development of “layers of analysis” (1998, p. 145) as a winnowing process that leads to a “small, manageable set of themes to write into [a] final narrative” (1998, p144). The final step was to develop an account based on the categorizations made and to bring detailed description back into the narrative to support my conclusions and the trends identified.

Validation and Verification
In quantitative, positivist traditions, the quality of research is judged on several criteria, including internal and external validity, reliability, and objectivity. The qualitative researcher relies instead on trustworthiness of the account and the researcher (i.e., credibility, transferability, dependability, and confirmability) and authenticity of the account (Creswell, 1998; Lincoln & Guba, 1985). I have maintained the authenticity of interview by providing direct quotes, altered only to improve readability. Two of my key informants asked to review any quotations that I planned to use from our interviews; I allowed them to review the quotations and the surrounding context in which I applied the quote. In the case of one of these informants, I was asked to use a more vague title to provide slightly greater anonymity. I was also asked to add supplemental information with two quotations that indicated that circumstances had changed since the interview. Since these changes did not affect the meaning of the passages, I complied with the wishes of the key informant rather than removing the quotations from the document.

**Audience and Product**

There are three potential audiences for this research. The first audience is the community of scholars interested in organizational change; this is a broad and diverse group composed of organizational sociologists, management scholars, and various other members of the academic community. The second group is made up of scholars of higher education administration; this group has some overlap with the first, but includes an additional set of academicians whose interests concern the specific way various phenomena are manifested in higher education.

The third audience is practicing higher education administrators. I believe that theory can and should inform practice, so, it was my goal to produce an accessible
manuscript. It was *not* my goal to develop a primer on how to detect legitimacy-seeking behaviors in universities or how to go about academic restructuring. I do not believe that any single study can be generalized to the entire higher education community; instead, I hope that this research explains my understanding and interpretation of academic restructuring as informed by the events at Virginia Tech and that the manuscript might bring certain issues and experiences to the attention of other scholars and administrators who are studying higher education organizations.
APPENDIX B: VIRGINIA TECH MISSION STATEMENTS

Virginia Tech Mission Statement, approved by Board of Visitors August 5, 1986; revised April 29, 1991

Virginia Polytechnic Institute and State University, a publicly supported, comprehensive, land-grant university, serves the Commonwealth of Virginia, the nation, and the international community by generating and disseminating knowledge in the humanities, arts, social sciences, scientific, and professional disciplines through instruction, research, and extension. The university instills within each member of the university community an appreciation of the values and obligations of productive citizenship and the responsibilities of leadership while promoting personal and intellectual development. Its scholastic programs are accessible to all who demonstrate academic merit to gain entrance.

To achieve this mission, as the university moves toward the year 2000, it will identify and build on strengths across the university, forge innovative and mutually productive relationships with industry and government, manage resources efficiently, and establish a clear identity as a forward-thinking, high-quality institution that systematically guides and evaluates its future.

Virginia Tech Mission Statement, approved by Board of Visitors June 4, 2001

Virginia Polytechnic Institute and State University is a public land-grant university serving the Commonwealth of Virginia, the nation, and the world community. The discovery and dissemination of new knowledge are central to its mission. Through its focus on teaching and learning, research, and outreach, the university creates, conveys, and applies knowledge to expand personal growth and opportunity, advance social and community development, foster economic competitiveness, and improve the quality of life.
APPENDIX C: HUMAN SUBJECTS COMPLIANCE, INSTITUTIONAL REVIEW BOARD

APPROVAL, & INFORMED CONSENT

Virginia Tech
VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

Institutional Review Board
Dr. David M. Moore
IRB (Human Subjects) Chair
Assistant Vice President for Research Compliance
CVM Phase II: Duck pond Dr., Blacksburg, VA 24061-0442
Office: 540/231-4991, FAX: 540/231-9033
email: moored@vt.edu

DATE: May 31, 2004

MEMORANDUM

TO: Max O. Stephenson, School of Pub & Internat Affairs 0113
Carole M. Bailey, Sociology 0137
Gary Kirk, Environmental Design & Planning 0114

FROM: David Moore

SUBJECT: IRB Expedited Approval: "The Legitimacy Crisis in Higher Education: A Case Study of Restructuring" IRB # 04-290

This memo is regarding the above-mentioned protocol. The proposed research is eligible for expedited review according to the specifications authorized by 45 CFR 46.110 and 21 CFR 56.110. As Chair of the Virginia Tech Institutional Review Board, I have granted approval to the study for a period of 12 months, effective May 28, 2004.

cc: File
MEMORANDUM

TO: Gary Kirk  EDP 0114
    Richard Zody  UAP 0113

FROM: David M. Moore

DATE: June 21, 2002

SUBJECT: Expedited Approval – “Effecting Change in Higher Education” – IRB # 02-334

This memo is regarding the above-mentioned protocol. The proposed research is eligible for expedited review according to the specifications authorized by 45 CFR 46.110 and 21 CFR 56.110. As Chair of the Virginia Tech Institutional Review Board, I have granted approval to the study for a period of 12 months, effective June 20, 2002.

Approval of your research by the IRB provides the appropriate review as required by federal and state laws regarding human subject research. It is your responsibility to report to the IRB any adverse reactions that can be attributed to this study.

To continue the project past the 12 month approval period, a continuing review application must be submitted (30) days prior to the anniversary of the original approval date and a summary of the project to date must be provided. My office will send you a reminder of this (60) days prior to the anniversary date.

RECEIVED
JUN 26 2002
BUDGET AND FINANCIAL PLANNING

cc: File
    Department Reviewer: Max Stephenson  ARCH 0205
Title of Project: The Legitimacy Crisis in Higher Education: A Case Study of Restructuring

Investigators: Gary Richard Kirk

I. Purpose of this Research

The purpose of this project is to explore the restructuring of a university. I will document perceptions of the impetus for change, the goals of the restructuring process, and the potential outcomes for the university in terms of organizational mission and purpose. The research will produce a thorough analytical case study. This analysis has implications for the understanding of a fundamental concept from neoinstitutional theory, organizational legitimacy. On a practical level, the study will document perceptions of the structurally focused change initiatives at the university and should both broaden and deepen discussion of the implications of externally-motivated, legitimacy-seeking behaviors in institutions of higher education.

II. Procedures:

The methodology for this study is an ethnographic case study. As such, data collection will involve observations and interviews with key informants. Additionally, secondary data (e.g., historical documents) will be used. Interviewees will include academic and administrative personnel at Virginia Tech, including faculty members and central, college and departmental administrators. A minimum of 15 and a maximum of 20 in-depth interviews, with participants of both genders, will be conducted.

Each interview is expected to last one hour. Follow-up interviews may be requested on an as-needed basis at the convenience of the subject.

III. Risks

The risks associated with this project are expected to be minimal.

IV. Benefits of the Project

The results of this research may benefit future restructuring efforts at Virginia Tech and other universities by providing a deeper understanding of the influences on and perceptions of structural change initiatives.

V. Extent of Anonymity and Confidentiality

Given the nature of case study research, the university (Virginia Tech) will be identified in the research product, and participants will be identified either by name or job title. In the event that more than one participant has the same job title and would like her/his identity protected, I will use a pseudonym and avoid the use of identifying information. The use of pseudonyms will not prevent consumers of the research product from inferring the identity of the participant; therefore, I cannot guarantee confidentiality.

At the request of the participant, portions or the entire interview may be attributed to a pseudonym, but, since job titles will also be associated with interview materials, the pseudonym will only provide added protection if more than one interviewee has the same job title. Participants may request that I use pseudonyms up until the time of publication of the
research. Please note that everything said in the interview may be included and attributed to
the interviewee unless specifically requested by the interviewee.

Transcription of all interview audio recordings will be completed by the researcher (Gary R. Kirk) or a transcription assistant who has signed a confidentiality agreement. I will keep tapes in a locked safe in my home. Only my dissertation committee members and I will have access to the transcripts. I will transcribe and score tapes in a standard manner consistent with qualitative analysis.

VI. Freedom to Withdraw

Subjects are free to withdraw from the study at any time.

VII. Approval of Research

This research project has been approved, as required, by the Institutional Review Board for Research Involving Subjects and by the Department of Environmental Design and Planning at Virginia Polytechnic Institute and State University.

VIII. Subject's Responsibilities

I voluntarily agree to participate in this study. My responsibility is to participate in the interview session.

IX. Subject's Permission

I have read and understand the Informed Consent and conditions of this project. I hereby acknowledge the above and give my voluntary consent for participation in this project. By submitting this form, I am giving my consent to use the information in the research.

<table>
<thead>
<tr>
<th>Subject Signature</th>
<th>Date</th>
</tr>
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<tbody>
<tr>
<td>Investigator Signature</td>
<td>Date</td>
</tr>
</tbody>
</table>

Should you have any questions about this research or its conduct, feel free to contact:

Investigator: Gary Kirk (garykirk@vt.edu) Phone: 540/231-4475

Investigator/Faculty Advisor: Dr. Max O. Stephenson (mstephen@vt.edu) Phone: 540/231-9932

Dr. Carol A. Bailey (baileyc@vt.edu) Phone: 540/231-2247

Chair, IRB Research Division: D.M Moore (moored@vt.edu) Phone: 540/231-4991
APPENDIX D: TRANSCRIPTOR CONFIDENTIALITY

Transcriber Confidentiality Agreement

This study is being undertaken by Gary R. Kirk (the Researcher) as part of the requirements of the Ph.D. in Environmental Design and Planning at Virginia Tech (Blacksburg, VA). The purpose of this project is to explore the external influences on university decision-making, the motivating factors for organizational change, and the relationship of the case to the concept of legitimacy in the context of organization studies. Data from this research will be submitted to the university to fulfill program requirements and to other appropriate outlets for publication and conference presentations.

Project Title: The Legitimacy Imperative in Higher Education: A Case Study of Restructuring

I, ___________________________________________ the transcriber, agree to:

1. Keep all research information shared with me confidential by not discussing or sharing the research information in any form or format (e.g., disks, tapes, transcripts) with anyone other than the Researcher.

2. Keep all research information in any form or format (e.g., disks, tapes, transcripts) secure while it is in my possession.

3. Return all research information in any form or format (e.g., disks, tapes, transcripts) to the researcher when I have completed the transcription.

4. After consulting with the researcher, erase or destroy all research information in any form or format that is not returnable to the Researcher (e.g., information stored on a computer hard drive).

Transcriber:

__________________________________________  (printed name)  
__________________________________________  (signature)  
__________________________________________  (date)  

Researcher:

__________________________________________  (printed name)  
__________________________________________  (signature)  
__________________________________________  (date)  

If you have any questions or concerns about this study, please contact:
Gary R. Kirk, MPIA
Virginia Tech
Phone: (540) 231-9584 (work)/(540) 552-2631 (home)
Email: garykirk@vt.edu

This study has been reviewed and approved by the Institutional Review Board of Virginia Tech. For questions concerning participants' rights and ethical conduct of research, contact the Institutional Review Board at:
Research Compliance Office
Attn: Dr. David Moore
(540) 231-4991
CVM Phase II (0442)
Virginia Tech
Blacksburg, Virginia 24061
| Interview #1     | August 6, 2002 (1-2) |
| Interview #2     | October 30, 2002 (10-11) |
| Interview #3     | November 4, 2002 (11-12) |
| Interview #4     | November 5, 2002 (2:30-3:30) |
| Interview #5     | November 7, 2002 (1:30-3) |
| Interview #6     | June 9, 2004 (2-3) |
| Interview #7     | June 9, 2004 (10-11) |
| Interview #8     | June 10, 2004 (2-3) |
| Interview #9     | June 10, 2004 (3:30-4:30) |
| Interview #10    | June 11, 2004 (9-10) |
| Interview #11    | June 14, 2004 (2-3) |
| Interview #12    | June 15, 2004 (10-11) |
| Interview #13    | June 15, 2004 (2:30-3:30) |
| Interview #14    | June 16, 2004 (10-11) |
| Interview #15    | June 17, 2004 (4-5) |
| Interview #16    | July 8, 2004 (9-10) |
| Interview #17    | July 13, 2004 (1-2) |
APPENDIX F: CURRICULUM VITA

GARY RICHARD KIRK

3046 Torgersen Hall (0445) 411 Wildflower Lane
Virginia Tech Blacksburg, Virginia 24060
Blacksburg, Virginia 24061 garykirk@vt.edu
540-231-9584

EDUCATION

• Virginia Tech, School of Public and International Affairs
  Ph.D., Environmental Design & Planning, 2004
  Exam Areas: (12/02) Nonprofit/Public Sector Management & Theory,
  Sociology of Higher Education, Organization Theory, and Qualitative
  Methods
  Dissertation: Constructions of Scarcity and Commodification in University
  Strategy: Restructuring at Virginia Tech
  Dissertation Committee: Drs. Max Stephenson (co-chair), Carol A. Bailey (co-
  chair), Alnoor Ebrahim, Diane Zahm, and Richard Zody

Master of Public and International Affairs, 2000
  Practicum: University Budgetary Implications of OMB Circular A-21: Policy
  Options
  Committee: Drs. Richard Zody (chair), James Bohland, and Mr. Minnis
  Ridenour

• New College of Florida
  B.A., Ecology, Ethology, and Evolution 1993
  Honors Thesis: Behavioral Ecology of the Mangrove Tree Crab, Aratus
  pisonii
  Thesis Advisor: Dr. Sandra Gilchrist

PROFESSIONAL EXPERIENCE

• Assistant Director for Planning and Operations, 2004-present
  Virginia Tech, Institute for Distance and Distributed Learning

• Business Officer, 2002-present
  Virginia Tech, Institute for Distance and Distributed Learning

• Budget Analyst, 2000-2002
  Virginia Tech, Office of Budget and Financial Planning

• Project Manager (Strategic Planning Consultant), 2000
  Environmental Partnership for Central Europe (Brno, Czech Republic)

• Budget Intern, 1999
  Roanoke County Budget Office

• Biologist and Technical Product Specialist, 1995-1998
  Tetra, Innovation and Quality Assurance Departments
Awards & Honors

• Fellow of the Academy of Leadership Excellence, 2002 to present
  Virginia Tech, University Leadership Development

• College Business Management Institute, Graduate, 2003
  Southern Association of College and University Business Officers; U. Kentucky

• Robert Stuart Award for Outstanding Graduate Student, 2000
  Virginia Tech, Department of Urban Affairs and Planning

• Virginia Citizen Planning Award, 2000
  Virginia Planning Association

• Exemplary Service Award, 1997 & 1998
  Tetra

• Leonard Florsheim Research Scholarship, 1992-1993
  New College, Department of Biology

• Roanoke College, Salem, Virginia, 1989-1990
  Bittle Memorial Scholarship
  Davis Honors Scholar

• RoVaCon Art Scholarship, 1989

• National Society of Professional Engineers Scholarship, 1989

• Youth Brotherhood Award, 1989
  National Conference of Christians and Jews

• Honors Program in Ecology, 1989
  U.S. Department of Energy, Virginia Representative

Teaching & Research Assistantships

• Administrative Assistantship

• Principles of Real Estate Management & Land Use Law and Policy
  Provided administrative support, including grading, web site development, and poster preparation for new faculty member (Jesse J. Richardson, J.D.); Department of Urban Affairs and Planning, Virginia Tech, Fall 1998-Spring 1999.

• Introduction to Ecology
  Taught laboratory sections and performed administrative duties, serving as manager of all sections in final two semesters; Department of Environmental Science, University of Virginia, Fall 1993-Spring 1995.

• Insect Population Dynamics
  Conducted independent research and assisted with faculty research in the area of insect-host interactions and population modeling; Department of Environmental Science, University of Virginia, Fall 1993-Spring 1995.
RESEARCH INTERESTS
Transferability of management practices from businesses to the nonprofit sector; organization studies, particularly in nonprofit organizations active in higher education, social service, and environmental activism; nonprofit and public budgeting and finance; and social capital development programs.

PUBLICATIONS & FUNDED RESEARCH


- Graduate Research Development Fund Grant Recipient, $500 for Dissertation-related Expenses. Sponsored by the *Virginia Tech Graduate Student Association*.

SCHOLARLY ACTIVITIES
- **Conference Presentations**


- **Service**

- **Professional Associations**
  Academy of Management, Sections on Org & Mgmt Theory; Public & Nonprofit Mgmt
  Association for the Study of Higher Education
  Association for Research on Nonprofit Organizations and Voluntary Action (ARNOVA)
  Association for Budgeting and Financial Management
  American Society of Public Administrators
  Sigma Xi
UNIVERSITY AND COMMUNITY SERVICE

- **University Service**
  Faculty Search Committee, Virginia Tech, Department of Urban Affairs & Planning, 1999-2000

- **Community Service**
  Advisory Board Member, Blacksburg Day Care and Child Development Center, 2001

TEACHING INTERESTS

- Nonprofit/Public Budgeting and Financial Management
- Organization Theory
- Nonprofit Management
- Higher Education in the United States
- Policy Analysis
- Qualitative Methods/Social Science Methods
- Organizational Ethnography