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Transforming a University? A Qualitative Analysis of the Grantee-Grantor Relationship Between Florida Institute of Technology and the F. W. Olin Foundation

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TRANSFORMING A UNIVERSITY?
A QUALITATIVE ANALYSIS OF THE GRANTEE-GRANTOR RELATIONSHIP BETWEEN FLORIDA INSTITUTE OF TECHNOLOGY AND THE F. W. OLIN FOUNDATION

by

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ABSTRACT

The purpose of this research is to discuss and examine the nature of the grantor-grantee relationship between the F. W. Olin Foundation and Florida Institute of Technology in the larger context of grants by foundations and philanthropies to higher education. At the center of the research is a $50-million-dollar grant that "transformed" Florida Institute of Technology in ways that were perhaps unforeseen by either the grant-issuing foundation or the higher-education institution itself. This research will include a brief history of the two institutions involved and the circumstances that led to this grant proposal and its eventual implementation by the university, interviews with the main actors, and an examination of the challenges and opportunities presented to Florida Institute of Technology in accepting a grant from the F. W. Olin Foundation. Finally, an analysis of the outcomes brought about by accepting what the F. W. Olin Foundation marketed as a "transformational" grant ties this research into the larger question of the roles of foundations and philanthropies in higher education.

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CHAPTER ONE: INTRODUCTION

Background of the Problem

Foundations and philanthropies have been a controversial subject, with scholars offering both support and criticism of their role in higher education since the first half of the 20th century. In 1938, Ernest Hollis wrote that foundations were key to the development of higher education by supporting activities on the cusp of cultural change (Hollis, 1938, p. 294). Others like Curti and Nash (1965) argued that foundations were the source of venture capital for higher education in the early 20th century. In a later work, Cheit and Lobman (1974) stated, "among the important patrons of higher education, none has had more influence per dollar spent than the private philanthropic foundation" (p.1). Havighurst, Holsinger, and Lunde (1976) posited that the modern foundation was created as the means to attack the causes of social problems and that these philanthropies and foundations saw higher education as the means by which to achieve solutions to widespread problems they envisaged plaguing American society. Clotfelter (2007) made a case that previous scholars examining the role of foundations in higher education have not always seen these organizations in such a beneficial light. Clotfelter listed some of these negative claims advanced by other academic scholars on this subject: that foundations maintain the status quo, that they serve the aims of the rich and powerful, and that foundations are the means by which the ruling classes shape intellectual thought (p. 5-6). Whatever their exact purpose, Clotfelter stated that all foundations seek to have an impact, to "make a difference" (p. 15).

These statements reflect the often-contentious role that philanthropies and foundations have played in the history of higher education, especially as they are often a source of significant funding. Yet the restrictions, obligations, and sometimes outright demands that came with these "grants," on occasion, forced institutions of higher education to act in ways that may not have been foreseen when they applied for these sources of funding. As made evident by the selection of quotations above, some scholars have posited the idea that foundations saw institutions of higher education, from the 19th century to the present day, as the means to achieve their goals for improving American society. However, these same scholars have indicated in their research that these goals, and the roles that colleges and universities are expected to play in achieving them, may not be explicitly understood by those in higher education.

Statement of the Problem

According to some researchers (see Clotfelter, 2007; Fransen, 2007; and Caboni & Proper, 2007), there is an inherent conflict between foundations and higher education. Colleges and universities are, by nature, often resistant to change. These grants, on the other hand, are meant to force change to institutional structures.

Caboni and Proper (2007) and Fransen (2007) stated that in 2006, voluntary support for higher education totaled $28-$30 billion, about 10% of total higher education expenditures. Clotfelter (2007) stated that a similar sum of money came from approximately 58,000 private foundations that granted money to between 3,000-4,000 colleges and universities in the United States. In the aftermath of the financial crisis of 2008-2009, along with reduced state and federal funding for higher education, sources of outside funding, such as that provided by philanthropic

foundations, become more important to maintaining colleges and universities. While the sums provided by foundations and philanthropies may seem small in proportion to overall expenditures in higher education, the relevance of these funds to sustaining the missions of colleges and universities is of even greater importance in the 21st century than in the past. More higher education institutions are thus pursuing this small but significant pool of funding.

Caboni and Proper (2007) suggested that increasingly in the 21st century, grants made by foundations to higher education may require colleges and universities to make difficult compromises to their institutional autonomy and operations. Research (e.g. Hollis, 1938; Chiet & Lobman, 1974; Havighurst et al., 1976; Clotfelter, 2007) has shown that there has been a long-standing symbiotic relationship between philanthropic foundations and higher education, but what scholars rarely discuss are the costs imposed on institutions of higher education when they accept grants and funding from these philanthropies. More importantly, the sums being offered by philanthropies are not small, and occasionally, the temptation presented by millions of dollars in new funding may lure higher education institutions into applying for these lucrative grants and outside sources of funding. The problem is that the higher-education institution's grant writers and administrators may not fully understand the potential costs to their institution or the limitations that may be attached to the funding they are seeking.

For the purpose of this study, I looked at the complex grantor-grantee relationship between the F.W. Olin Foundation and Florida Institute of Technology. I also examined how the request by the F.W. Olin Foundation for Florida Institute of Technology to raise $25 million dollars in matching grants may have transformed aspects of the university in ways perhaps unforeseen at the time the grant was applied for by the grant writers and university

administrators. Finally, I looked at this particular case study in light of larger research concerning the often-problematic relationship between philanthropies and higher education, and I have placed this case study in its proper historical context.

Purpose of the Study

As the body of literature—for examples see Bacchetti (2004), Bacchetti and Ehrlich (2006), Caboni and Proper (2007), Clotfelter (2007), and Fransen (2007)—about the relationship between foundations and higher education grows, this research illuminates the potentially contentious processes by which grants are authorized and distributed by foundations to America's colleges and universities. This process, as discussed in my research, suggests that there are problematic connections between these two organizations that become more apparent over time. Documented research about both the F.W. Olin Foundation and Florida Institute of Technology is limited. An institutional history of Florida Institute of Technology has been published, along with individual articles highlighting aspects of the university's 56-year history. Research on the F.W. Olin Foundation revealed that a history was published in 1990, celebrating the foundation's 50th anniversary. The only other published historical material on the F. W. Olin Foundation is included an institutional history of the F. W. Olin College of Engineering, released in 2009.

Interestingly enough, while the F.W. Olin Foundation website lists a number of colleges and universities that received some of the $300 million dollars the foundation provided over the 60 years of its existence between 1938-1998, there is no mention of the sums provided to Florida Institute of Technology (Franklin W Olin College of Engineering, 2012). Considering that the

total amount provided by the F.W. Olin Foundation to Florida Institute of Technology was between $50-$62 million dollars, or approximately 1/6th to 1/5th of the total funds provided to higher-education institutions, this is a curious oversight. Thus, the purpose of this qualitative study is twofold: first, to describe and understand the grantor-grantee relationship between the F.W. Olin Foundation and Florida Institute of Technology and second, to describe and understand the transformational changes, both foreseen and unforeseen, on Florida Institute of Technology that resulted from the university's acceptance of the F.W. Olin Foundation grants.

Significance of the Study

This research study contributes to three main areas of research in higher education:

1) University finances and the role such funding provided by foundations and philanthropic organizations has on higher education;

2) The role and the effects that foundations and philanthropies have on college and university governance and decision-making processes;

3) The place of foundations and philanthropic organizations in the history of higher education in the United States.

Finally, I believe the study contributes additional information to the limited institutional histories of both the F. W. Olin Foundation and Florida Institute of Technology, and thus to the larger body of research on the history of higher education organizations in the United States.

Conceptual Framework

This study was guided by a conceptual framework that centered on the theories and issues originating from resource dependence theory (RDT). Pfeffer and Salancik (1978) were the originators of RDT, which they used in their discussions about the complex sociological relationships that emerged over the control of business organizations by outside agencies. They argued that organizations are usually involved in interdependent relationships:

> The potential for one organization influencing another, derives from its discretionary control over resources needed the by the other and the other's dependence on the resources, and the lack of countervailing resources and access to alternative sources (p. 53).

Zha (2009) took Pfeffer and Salanick's basic premise and applied it to universities and their relationship with each other in the competition for scarce resources, all in the context of higher education. Zha also argued that it is important to examine how these organizations control and/or avoid such dependent relationships, and how organizational leadership in higher education is affected by these external dependencies (p. 461).

Johnson (1995) stated that organizations, given a scarcity of any particular resource, often alter their behavior and/or structure of their organization to ensure that they receive the resource they wish to obtain. These alterations, or the demands for these alterations, may go beyond what the organization expected to occur when they originally sought outside financial assistance. However, Johnson (1995) was also wary of applying RDT as a theory to all such power based relationships, noting that RDT lacked the ability to clearly separate between the environment in which an organization operated in and the organization itself (p. 14). He presented another weakness of RDT, which noted that outcomes were affected by where researcher placed his/her

focus: on the organization itself, the relationships of the organization to those dependent on it, or on the amount and nature of the resources of the organization (p. 15). Johnson clearly indicated that the potentially greatest limitation of RDT is also the greatest strength: the focus on materialistic forces rather than on potential other forces (cultural, ideological, institutional tradition, etc.) that may affect the power dynamic (p. 16). These ideas will be greatly expanded upon in Chapter 5.

Casciaro and Piskorski (2005) stated that the notions of power, dependence, autonomy, and constraint are inescapable in organizational research and that they form a complex and sometimes difficult to unravel pattern of actions. (p. 167). While some business scholars noted that RDT had lost many adherents in the world of business over the last 20 years, its popularity for explaining relationships in education and healthcare grew tremendously, according to Davis and Cobb (2010). Davis and Cobb also clearly stated that the three central ideas underlying RDT were: that social context matters, that organizational strategies are used to enhance autonomy and pursue interests, and that power, or a sense of power, is important for understanding internal and external actions of organizations (p. 5). Davis and Cobb noted that this could be further clarified by observing that organizations were run by individuals who sought to ensure survival of the organization, enhance their autonomy and maintain stability in their relationships with other organizations (p. 5).

Froelich (2009), however, is perhaps the best resource dependence theorist for explaining why this case study matters. Froelich examined non-profit organizations, specifically foundations and philanthropies, and argued that the grants given to a non-profit organization are never adequate, stable or readily available (p. 253). Froelich further noted that these large grants

provide multiple year funding streams, but often lack any form of long term commitment. Thus non-profit organizations, especially universities and colleges, must find matching funds or additional sponsors to continue support once the original grant has ended (pp. 253-254).

While RDT has its roots in business, it has become a general organizational theory that also applies to any relationship where one actor has a resource that another desires to obtain. In the last 20 years, RDT has been increasingly used to study role of resource dependency for non-profit organizations. In this case, and especially important for this research study, the actors with the resources are foundations and philanthropies, while those seeking these resources are non-profit higher-education institutions.

Thus, the conceptual framework for this study revolves around models in which the grantor uses its financial power to control the dependence and autonomy of the grantee to achieve its stated (or unstated) goals, while the grantee seeks ways to escape these constraints and attempts to reverse any sense of dependence it feels from the grantor.

Research Questions

The research questions for this study are as follows:

1. In what manner, and to what extent, were the institutional autonomy and operations of Florida Institute of Technology effected by the awarding of a $50-million-dollar grant from the F. W. Olin Foundation in 1997?
2. In what manner and to what extent did the conditionalities of the grant from the F. W. Olin Foundation (especially the request for matching dollars) impact the relationship between the foundation and the university?

3. What were the long-term administrative and organizational effects for Florida Institute of Technology in accepting the $50-million-dollar grant from the F. W. Olin Foundation?

Definition of Terms

Administration: The act or process of internal and external management of an organization.

Autonomy: The freedom for an individual or an organization to determine its own course of action without oversight or restrictions imposed upon it.

Commodification: The process of commodification turns higher education into a simple commodity that can be bought and sold with little input from faculty or students. Neem et al. (2012) define commodification as providing education reduced to the lowest common denominator, using standardized products that can be graded and assessed by computers and/or graders with little to no faculty input (p. 15-16).

Commercialization: As defined by Bok (2003), commercialization is the development of for-profit activities at traditionally non-profit colleges and universities. Commercialization traditionally begins with athletics and extensions schools, but has since expanded into the field of distance and online-education. This often, according to Sidorkin (2012), also involves earning revenues from government sponsored research, but selling off patents or opening commercial subsidiaries to profit from publicly subsidized research.

Conditionalities: The conditions imposed or required to achieve a particular desired outcome. According to McLean & McMillan (2009) the concept was originally introduced by the International Monetary Fund in the 1970s when it sought to lend aid money to governments only after a series of economic and/or political reforms were to be in place before the money was

distributed. Conditionality is therefore based on the idea of external constraints imposed by the grantor upon the recipient that may lead to tensions between the two organizations over the best way to use this financial aid.

Corporatization: According to Neem et al. (2012), this can refer to "direct interactions between corporations and higher education institutions, or describe the efforts by universities to follow the behavior of for-profit corporate behavior" (p. 19).

Lerner (2008) defines corporatization as "the erosion of tenure by attrition and the rise of contingent faculty, the rise in tuition, the dramatic decrease in federal and state aid to universities and state colleges, and the outsourcing of campus bookstores and custodial work" (p. 219).

Culture: In organizations, according to Dill (2000), culture is the "shared beliefs, ideologies, or dogma of a group which impel individuals to action and give their actions meaning" (p. 264).

Florida Institute of Technology: A private university established in 1958 focused primarily on the fields of engineering and science. It is located in Melbourne, Florida. It is commonly known as Florida Tech in its promotional and advertising material.

Foundation: Any institution that is financed by a donation(s) and/or legacy gift(s) that in turn spreads that financial largesse to aid in funding endeavors in education, research, or the performing arts.

Funding reform: The means to change the way in which institutions of higher education are financed. This reform movement shifts the balance away from tuition and external grants to a more reliable means of funding the institutions' mission.

F. W. Olin Foundation: Founded in 1938 by Franklin W. Olin, the primary purpose of the foundation was to donate funds for the construction of buildings on college campuses. Most of the funding went to private business or engineering colleges and universities.

Institution of higher education: Generally, a college, university seminary, academy, or institution of technology, public or private, whose primary purpose is to advance human education and/or conduct scientific research. Sometimes called post-secondary institutions.

Operations: Expenditures necessary to maintain the day-to-day operations of an organization or institution.

Organization: An organization, according to Baldridge et al. (2000) "has goals, hierarchical systems and structures, official who carry out specified duties, decision making process that set institutional policy and a bureaucratic administration that handles routine business." (p. 128)

Philanthropy: The use of public and/or private donations from foundations and organizations to fund or endow institutions of higher education with the means to finance their mission(s) to advance education, research, and/or other socially useful purposes.

Resource dependence theory (RDT): RDT proposes that actors lacking in essential resources will seek to establish relationships with (i.e., be dependent upon) others in order to obtain needed resources. Also, organizations attempt to alter their dependence relationships by minimizing their own dependence or by increasing the dependence of other organizations on them. Within this perspective, organizations are viewed as coalitions alerting their structure and patterns of behavior to acquire and maintain needed external resources. Acquiring the external resources needed by an organization comes by decreasing the organization's dependence on others and/or

by increasing others' dependency on it, that is, modifying an organization's power with other organizations (Akbari, 2005).

Assumptions

The following assumptions were made for this study:

1) It was assumed that there was a grantor-grantee relationship between the F.W. Olin Foundation and Florida Institute of Technology that lasted approximately ten years, from 1994-2004.
2) It was assumed that this relationship between the two institutions ended on less-than-cordial terms given the lack of official information about the grant in the public record or in media sources supported by the F.W. Olin Foundation.
3) It was assumed that acceptance of the grant of $50 million dollars by Florida Institute of Technology's administration carried costs both seen and unforeseen when the grant was applied for in 1994-1995.
4) It was assumed that acceptance of the $50-million-dollar grant had long-term administrative and organizational effects for Florida Institute of Technology.

Limitations

1. The qualitative data that was collected may only be useful as a case study of these two institutions and not necessarily applicable to a wider examination of higher education.
2. Every effort was made to limit potential researcher bias, as I am an employee of Florida Institute of Technology. The procedures to limit potential bias included triangulation of

data, semi-structured interview questions, and specific procedures for examining institutional records, correspondence, and materials concerning the grantor-grantee relationship.

3. The reality that the F.W. Olin Foundation, which ceased being an independent entity in 2004, may have destroyed or lost much of the correspondence concerning Florida Institute of Technology grant. This potential limitation was partially overcome with the use of outside sources, such as newspapers and public philanthropic giving records, as well as with interviews of those involved in the decision-making process, but those interviews were given through secondary sources.

Research Transparency

Research transparency is important, especially in qualitative research. As the primary researcher, I am also an employee of Florida Institute of Technology. I have been employed by the university as an instructor in the Department of Humanities and Communication since the fall of 1999. The potential for bias to affect the direction of the research and the outcomes is understood. There is also a potential for political consequences to impact my research. Such biases will be accounted for, and the means to minimize these potential research biases are being accounted for in the carefully constructed research methodology that is detailed in Chapter 3 of this proposal. I used all means possible and at my disposal to be explicit, clear, and open about all assumptions that are made in compiling this study. All research methods and procedures that are used in compiling this study are clearly detailed. The results should be easily understood and

the methodology clearly repeatable given a similar set of circumstances. Since researchers are an inherent part of qualitative research, they need to be critical of their assumptions, presuppositions, and any decisions made to include or exclude research uncovered during assembly and review of the study's findings.

Particular care needed to be taken with interviews and other personal narratives recorded or accessed during this study. Audio recordings were taken of all interviews, and then transcribed to produce a transcript. The transcript became a part of the narrative structure used to assemble as clear a picture of the situation as possible. Other personal narratives, such as memoirs, letters, emails, and personal and official correspondence were treated with the same care as any audio transcripts. Cross-referencing and coding of these materials helped to establish transparency, as well as providing for the triangulation of data. It should be noted that all research costs involved in conducting this study were self-funded.

Organization of the Study

Chapter 1 provides background information necessary to understanding the study, as well as providing an introduction to the problem, significance, and purpose of the study and the study's research questions. Chapter 2 is a literature review of the topics under discussion. These topics include a history of foundations and philanthropic giving in America; a history of foundations and philanthropic giving to higher education; the problems of foundation and philanthropic giving to higher education; and the evolution, application, and critiques of resource dependence theory. Chapter 3 discusses the methods of data collection and analysis used in this study. Chapter 4 presents the results of the research conducted, while Chapter 5 discusses the

topic in relation to RDT theory, grounding the research in the conceptual framework. Chapter 6 concludes with a discussion of the greater impact of this research.

Summary

This dissertation examines the role of foundations and philanthropies in higher education. The long history of philanthropic giving has had an important impact on the direction of higher education at the institutional level. By examining the specific case study of the F.W. Olin Foundation philanthropic grant to Florida Institute of Technology, many of the issues discussed in the earlier section, Background to the Problem, are revealed in more detail.

The story of Florida Institute of Technology's application for a $50-million-dollar grant and what occurred to secure that funding from the F. W. Olin Foundation is at the heart of this study. While the facts are known that the university eventually secured two grants worth more than $60 million dollars, and that the university did raise more than $20 million dollars in matching funds, it is the unknown story surrounding the entire experience that is important. The examination of this specific case study helps to illustrate the sometimes contentious relationships that develop between foundations and higher education in 21st-century America.

CHAPTER TWO: LITERATURE REVIEW

Introduction

The literature review in this chapter was conducted to provide a foundation for discussing both the history and the nature of philanthropic giving by foundations to American institutions of higher education. This broad discussion was further narrowed down to discuss the following topics: the problems that have been discovered with philanthropic giving in general and specifically with higher education, issues that have arisen when higher-education institutions accept philanthropic giving, and the historical background surrounding the specific case study of the F.W. Olin Foundation and Florida Institute of Technology. Finally, the chapter concludes with a discussion of resource dependence theory as a conceptual framework.

Foundational Philanthropy in America

Any literature review that discusses foundations and higher education begins with a discussion of the state of historical research into philanthropies and foundations in American society. Friedman and McGarvie (2002) in the introduction to the edited collection *Charity, Philanthropy and Civility in American History*, provide an excellent overview of the neglected state of professional historical research into philanthropies in American society. Friedman points out that the traditional source for any discussion on the history of American philanthropy was Robert Bremner's book, *American Philanthropy*, first published in 1960, and revised in 1988 (Friedman & McGarvie, 2002, p. 4). The book, even with its 1988 update, did little to discuss

philanthropy's relation to a number of social groups in American society: African Americans, Native Americans, Hispanics, and other ethnic groups (Friedman & McGarvie, 2002, p. 4). Friedman stated that Bremner's book did little to discuss some of the historical research conducted by individual scholars in other fields outside of history. Thus, according to Freidman, Bremner's book reflected the way scholarly American history was written in the 1950s, not in the 21st century.

Zunz (2012) sets out to discuss an updated history of American philanthropy, but instead of placing its origins in the colonial era, he places it in the decades immediately following the Civil War. It was during the last half of the 19th century, as America underwent a massive industrial transformation during the course of the 2nd Industrial Revolution, that the nation's wealth was produced in enormous quantities. This wealth, however, was increasingly concentrated in the hands of a relatively small number of individuals in sums never before seen in American history. According to Zunz, America had just 100 millionaires in 1870, but by 1892 there were more than 4,000, and by 1916, on the eve of America's entry into the First World War, there were more than 40,000, including at least two billionaires: John D. Rockefeller, Sr. and Henry Ford (p. 8).

Burlingame (1992) and Fleishman (2009) notes that Andrew Carnegie, in his book *The Gospel of Wealth*, set the tone for these charitable donations by the nation's millionaires by stating that "he who dies rich dies thus disgraced" (Fleishman, 2009, p. 46). These new philanthropists used their vast sums of money to fund organizations and institutions whose goals were to discover long-term solutions to social problems rather than providing immediate and all-too-temporary relief. Chernow (2004) and Zunz (2012) notes that this money often went to build

a national structure for scientific research in higher education, led by men like John D. Rockefeller and Andrew Carnegie, and by women like Olivia Sage, who had been left millions of dollars by her railroad-financier husband, Russell. Remarkably, Crocker (2002) makes it clear that unlike Olivia Sage, who divested herself of millions of dollars and created a foundation in her husband's name, Russell Sage was perfectly content to die with his money intact and to thumb his nose at Andrew Carnegie and other philanthropists of the era.

It was this vast expansion of corporate and individual wealth during the post-Civil War surge in industrial output that provided the financial means for the growth of corporate philanthropy in the late 19th and early 20th centuries. Zunz (2012) notes that much of this wealth was directed early on toward higher education, including the creation of entire universities, such as those funded by Johns Hopkins, Ezra Cornell, Leland Stanford, and John D. Rockefeller (p. 9)

Havighurst, Holsinger, and Lunde (1976) also indicated that the earliest of the corporate philanthropists and the foundations they established to support their philanthropic giving were focused not on alleviating a single situation, but on providing the solutions to long-term social problems. For many of these corporate philanthropists, the best way to end these problems was to provide support through higher education. According to Havighurst et al., it was again John D. Rockefeller and Andrew Carnegie who led the way, supporting not only higher education directly, but also creating public libraries and providing funding for educational infrastructure at the primary and secondary levels: "Education was the principal field of foundation activity because it (was) viewed as an instrument for directly promoting human well-being" (Havighurst et al., 1976, p. 8). Gross (2002) and Fleishman (2009) made it clear that there were also more personal reasons for creating these philanthropies. For John D. Rockefeller, it was simply "to

spare him the overwhelming burden of overseeing donations to worthy causes" (Gross, 2002, p. 47), as he once stated, "these investments are now taking more of my time and energy than the Standard Oil itself. Either I must shift part of the burden or stop giving entirely. And I cannot do the latter" (Fleishman, 2009, p. 97-98).

Havighurst et al. (1976) provided a table showing how rapidly corporate philanthropic foundations grew in the first half of the 20th century.

Table 1: Number of New Corporate Foundations Established in America, 1900-1960

Decades Examined	# of New Foundations Est. Per Decade
To 1900	18
1900-1909	18
1910-1919	76
1920-1929	173
1930-1939	288
1940-1949	1,638
1950-1959	2,830
	Total: 5,050

Table adopted from Havighurst et al. (1976), p. 10

Why were so many of these corporations established in the period 1900-1939? Several scholars (Havighurst et al., 1976; Friedman & McGarvie, 2002; and Zunz, 2012) supported, at least in part, the traditional historical viewpoint that held that corporate philanthropists established these foundations partly because of the genuine belief that they had the financial means to give back to the American society that had allowed them to accumulate such wealth in the first place. However, these scholars also pointed out that many of these corporate philanthropists, especially Carnegie and Rockefeller, held genuine beliefs that there were serious social ills that could only be solved through the spending of large sums of money targeted at permanently alleviating these conditions. Yet, according to Friedman (2002), other historians, particularly David Rothman and Clifford Griffin in the late 1960s and 1970s, believed that philanthropists did not contribute their

money to undertake a general improvement in the well being of American society, but to control the lower classes and thus maintain social stability as well as protect their corporate profits (p.5).

Freidman (2002) stated that by the 1980s, the ideas of Rothman and Griffin were being challenged by a new group of scholars who saw the motivations of early corporate philanthropists as constantly shifting and competing with various societal and corporate demands (p. 5). Friedman went on to state that Bremner's work, now more than fifty years old and with severe deficiencies, nevertheless remains the primary synthesis of the history of American philanthropy (Friedman, 2002, p. 5). While specialized research in American philanthropy and especially in the relationship between American philanthropic foundations and higher education remains robust (see the research sources appended to this proposal), Friedman stated that it would be almost impossible for any group of historians to provide an up-to-date synthesis of the current research. Remarkably, that is what Zunz (2012) attempted to do in his *Philanthropy in America: A History*, published in 2012. Whether he completely succeeded at his task is something future historians and scholars will have to decide.

The Origins of Corporate Foundations in America to 1920

Regardless of the current state of historical research in American philanthropy, it is apparent from the chart previously discussed that the first two decades of the 20th century saw corporate foundations explode in American philanthropy. Tremendous wealth had been accumulated by the captains of American capitalism in the late 19th century, and more was still being made as American industrialization continued to transform society and the economy. It was also an era of progressive reform, symbolized by federal and state government "attacks" on

corporations and laws passed to restrict perceived (and real) excesses of corporate capitalism. Friedman and McGarvie (2002) indicate that American society in the period prior to the Great Depression was challenged by corporations seeking to form a new national consensus based on scientific efficiency, martial discipline, and public service (p. 157). Government, according to these capitalists, was in the way of progress and needed to leave corporations to deal with society's problems as they saw fit (Friedman & McGarvie, 2002, p. 157). Yet these same corporations faced challenges presented by ideas supporting the political ideology of Progressivism: more participatory democracy, a resentment toward big business and belief that it's excesses needed to be reined in (e.g. trust busting), and—during Theodore Roosevelt's administration—a belief that the federal government had the power to secure the social good for all Americans through new government regulatory agencies such as the Food and Drug Administration (Friedman & McGarvie, 2002, p. 158-159).

However, the corporate philanthropies and charitable foundations established by men like Carnegie and Rockefeller faced difficulties in legally establishing themselves and their ability to operate. Havighurst et al. (1976) noted that many of the corporate founders were disparaged by progressives, socialists, and radicals as "malefactors of great wealth" (p. 82). Even pro-business presidential administrations, such as the Taft administration, sought to restrict the creation of foundations, seeing them simply as means for the rich to eternally perpetuate their wealth (Havighurst et al., 1976, p. 83). Accordingly for Havighurst et al., when these foundations failed to obtain a federal charter to secure their creation and continued existence, they simply turned to state legislatures that were more sympathetic to the establishment of corporate foundations and philanthropies for their charters to operate. Crocker (2002) noted that Olivia Sage established the

Russell Sage Foundation in 1907, and was forced to incorporate in New York State, much as the Rockefeller Foundation would be forced to do six years later.

Karl and Katz (1987) pointed out that the failure of the federal government to grant the Rockefeller Foundation a charter meant that the organization would turn out very different from how it was originally envisioned. According to Karl and Katz, the foundation was to have a board appointed by senior members of the federal government—including the President of the United States, the Chief Justice of the Supreme Court, and the Speaker of the House of Representatives—as well as the presidents of major universities including Harvard, Columbia, Yale, Johns Hopkins, and the University of Chicago (p. 11). Congressional oversight of the foundation's activities would be allowed, and after fifty years, the foundation would start paying out its principal (Karl & Katz, 1987, p. 11). Thus, Karl and Katz point out that a vital moment was lost when Congress rejected the application by Rockefeller and, subsequently, any government oversight of the foundation was seen as null and void by the foundation's board of directors.

Who Were These Early Corporate Foundations?

While there were a number of corporate foundations formed in the first three decades of the 20th century (see Table 1), this section provides a brief overview of some of the most important foundations established up to 1930. The decisions these foundations made in the late 19th century and the first three decades of the 20th century helped to influence the shape and direction of corporate philanthropy for the rest of the 20th century. Dowie (2001) and Hammack (2002) noted that these foundations, led by Andrew Carnegie and John D. Rockefeller, were the

first of the super-rich to give their funds over to bettering American society. Dowie (2001), Friedman & McGarvie (2002), Hammack (2002), and Zunz (2012) all agreed that both men saw the early 20th century as a time in which "learning would create progress, expand wealth, and advance civilization and human welfare," as well as "diminishing the specter of socialism" (Dowie, 2001, p. 4). To achieve these advances would require vast sums of money to be spent in education, as well as in scientific and technological fields, that sought to establish, as Dowie (2001) noted, a new system not necessarily to defend the current capitalist system. Dowie (2001) notes that while Europeans sought improvement through their respective national governments, in the United States, the drive for such reform came from private, corporate-supported foundations and other non-profit institutions.

The Carnegie Corporation, in its various guises, is the oldest of America's corporate foundations. Lagemann (1983) noted that while its origins are in a number of early institutions founded by Andrew Carnegie in the 19th century and early 20th century (e.g. The Carnegie Foundation for the Advancement of Teaching founded in 1905), the Carnegie Corporation formally was established in 1911. From the beginning, according to Havighurst et al. (1976) and Lagemann (1983), the Carnegie Corporation was focused on national education, especially education in the American South, as well as American higher education. Havighurst et al. stated that Carnegie wanted his funding to have a direct impact on the system by which people learn, which in turn meant funding libraries, museums, medical colleges, artistic programs, and colleges and universities as whole. The Carnegie Corporation's 1911 charter best defined its mission:

> (To) promote the advancement and diffusion of knowledge and understanding among the people of the United States, by aiding technical schools, institutions of higher learning,

> libraries, scientific research, useful publications, and by such other agencies and means as shall from time to time be found appropriate therefore. (Havighurst et al., 1976, p. 150).

After Carnegie's death in 1919, the corporation's board of trustees continued to follow the mission by providing the majority of its support through research grants that would advance knowledge broadly defined as well as helping to diffuse that knowledge to society as a whole. Kohler (1987) noted that throughout the 1920s, the Carnegie Corporation was the largest source of external funding for scientists, bestowing grants worth more than $100,000 per year (p. 137).

The Rockefeller Foundation, established formally in 1913, was the second of the great corporations established in the early 20th century. Like the Carnegie Corporation, the Rockefeller Foundation's initial activities and grants were directly influenced by its founder, John D. Rockefeller, Sr., and its roots can be traced back to early philanthropic endeavors, including the General Education Board (1903). Havighurst et al. (1976) noted that the General Education Board began with an interest in discovering the means to improve the poor state of Southern education, where poorly constructed schools housed underpaid teachers educating far too many students with far too little public support. Quoting Booker T. Washington, Wallace Buttrick, the first president of the General Education Board, summed up the problem by stating that white teachers were paid $25 a month, while black teachers were paid as little as $1.60 a month (Havighurst et al., 1976, p. 107-108). The General Education Board sought to improve education not only for African Americans, but also for poor whites in the South over the next 40 years before closing its doors in 1964. Though short-lived, the briefly independent Laura Spelman Rockefeller Memorial helped to provide funding for research before being absorbed into the larger Rockefeller Foundation by the end of the 1930s.

When the larger and better-financed Rockefeller Foundation was established in 1912, it continued the work of the General Education Board, but this time focused on improving primary, secondary, and higher education in the United States. Much of this money in the period between 1903 and 1929 went to general education programs in the South, improvements in medical education, endowment grants to 291 colleges and universities, college teachers' salary support, fellowships and scholarships for both undergraduate and graduate students, and research support grants for improving programs in the social, natural, and hard sciences (Havighurst et al., 1976, p. 128).

The Russell Sage Foundation was technically older than the Rockefeller Foundation, founded by Olivia Sage in 1907. Unlike the Carnegie and Rockefeller foundations, the Russell Sage Foundation probably would never have been approved or even considered by Russell Sage himself. Zunz (2012) noted that Russell Sage was the typical "robber-baron" of the late 19th century, who intended to keep his money and if he could have, would have died with his millions intact. However, Olivia Sage, according to Havighurst et al. (1976) and Zunz, having inherited her husband's substantial fortune, established a foundation whose purpose was to improve the social and living conditions of people of the United States. However, her unique approach was not to provide direct support to alleviate those problems, but instead to establish a foundation employing a team of sociologists who would study the means to eliminate those conditions. Havighurst et al. noted that the Russell Sage Foundation never had the funds of the Carnegie or Rockefeller foundations, and instead sought to provide research that could be provided to policy makers in the private and public sectors (p. 134).

The Commonwealth Fund was started in 1918 by Anna Harkness using money from her husband's early investments in the Standard Oil Company. With a family-run philanthropy, Harkness believed that her money "should do something for the welfare of mankind" (Commonwealth Fund, 2012). Most of the foundation's wealth until 1953 went toward providing better health care in America, but the foundation's board believed the best way to achieve that goal was through supporting scientific research to establish what worked before implementing those policies with sympathetic health care providers (Commonwealth Fund, 2012). In the 1920s, this money went to support scientific research as well as the construction of rural hospitals and support for public health programs. The amount of money spent by the foundation was not insignificant, nearly $53 million by 1959, but that sum paled compared to the monies spent by the Carnegie and the various Rockefeller foundations (Commonwealth Fund, 2012).

The W. K. Kellogg Foundation was established during the Great Depression to provide grants to improve the health, education, and welfare of children in Southwestern Michigan. William Keith Kellogg, along with his brother Dr. John Harvey Kellogg, had made a fortune by creating and merchandising breakfast cereal. As Havighurst et al. (1976) commented, Kellogg was one of the first philanthropists who had been influenced by the federal government to participate in private philanthropy. The foundation's focus, though originally on children, broadened over time. By the 1950s, the Kellogg Foundation became one of the largest national trusts in supporting a variety of international activities in Canada, Europe, Latin America, and Australia, as well as throughout every state in the United States (Havighurst et al., 1976, p. 185-186). While the foundation's expenditures were relatively modest before the Second World War, its philanthropic giving after that period increasingly focused on higher education at all levels,

especially the improved training of those who deal with children: educators and health care providers in particular.

Corporate Foundations in the 1920s and 1930s

Hammack (2002) noted that by the 1920s, the social reorganization process was slowly underway. Zunz (2012) pointed out that the federal government's attempts to raise funds during World War I, including enlisting the help of private foundations, imprinted on the American consciousness the value of contributing to mass philanthropy. What allowed philanthropy and philanthropic giving to grow in the 1920s, according to Zunz, was a general increase in household wealth and a rising standard of living. This individual philanthropic giving was not only to small private charities, but also to religious charities and to private foundations. Nevertheless, Kohler (1987) reminded readers that the two largest foundations, the Carnegie Foundation and the various entities that contributed money from the Rockefeller funds, provided nearly 9/10ths of all scientific research funding in the 1920s.

Zunz (2012) also noted that Herbert Hoover, as Secretary of Commerce during the Republican administrations of the 1920s, developed connections to the foundations, helping to encourage the creation of think tanks by foundations to help fine tune federal policy. Zunz made it clear that Hoover was in favor of corporate philanthropy's support of universities. These connections made during his tenure as Commerce Secretary during the Harding and Coolidge administrations would come back to assist him as he struggled as President in 1930 to deal with the Great Depression.

It was the emergence of the financial crisis and instability during the Great Depression in the 1930s that would change how foundations worked. According to Hammack (2002), at the start of the Great Depression, many of the corporate foundations established in the first two decades of the 20th century began to cut their final ties to religious organizations and charities, and instead focused on dispersing their funds through private hospitals and universities to undertake a new mission: establishing national standards for health, welfare, and education, in order to harness science for both the public good and national defense (p. 265, 273). In one sense, this was just a restatement of their original aims, but the emphasis here was on direct grants to organizations they thought would have the most immediate impact. During the Great Depression, most of the influential foundations—Rockefeller, Carnegie, Russell Sage, Rosenwald, Kellogg, and the Commonwealth Fund—sought to shift their donations solely to higher education, scientific research, health care, and the social-sciences (Hammack, 2002, p. 274-275).

Zunz (2012) pointed out that there was a solid economic reason for this switch in emphasis: the foundations did not have the financial wherewithal to provide direct charity to those affected by the financial turmoil. Using figures from New York City, Zunz recounts how Russell Sage Foundation board members told Hoover that the government of New York City was spending $18 million a month on relief, and had the foundation done the same, it would have depleted its annual expenditure in just two days. The foundation board members had thought this was an unwise use of their limited resources (Zunz, 2012, p. 122-123).

While many universities suffered during the initial years of the Great Depression, according to Hammack (2002), by 1935 most were on the road to recovery. Like universities,

private hospitals and medical institutions struggled through the first five years of the Great Depression, then boomed dramatically during the late 1930s and throughout the 1940s, especially during the war years (Hammack, 2002, p. 276-277). Yet, philanthropic giving also went in new directions in the 1930s, as corporate and individual philanthropies and foundations began to support the acquisition of artwork for major national galleries. Hammack also noted that two of the biggest donations in the 1930s were meant to reinforce traditional American values in the midst of the Great Depression. These were the creation of Greenfield Village by Henry Ford in 1929, and the funding provided by John D. Rockefeller, Jr. for the creation of Colonial Williamsburg starting in 1928. By the mid-1930s, Rockefeller had donated nearly $80 million dollars to the foundation supporting Colonial Williamsburg (Hammack, 2002, p. 277).

Corporate Foundations in the 1940s and 1950s

Though American philanthropy had retreated slightly in the 1930s and was relatively quiet during the war years (1941-1945), it came roaring back in the public consciousness in the late 1940s and 1950s. Havighurst et al. (1976) noted that in the five years after the war ended, as millions of U.S. servicemen began to enter higher education through the auspices of the G.I. Bill, the Carnegie Foundation began to support the newly created Educational Testing Service (ETS). The late 1940s also saw the emergence of the Ford Foundation as a new player in corporate philanthropy, giving out more than $500 million in grants to colleges and universities, especially for the support of faculty salaries (Havighurst et al., 1976, p. 95). Friedman and McGarvie (2002) pointed out that the 1950s also saw the rapid expansion of grants and funding overseas by the major corporate foundations. Driven by the Cold War and the federal government's war

against Communism, three large foundations—Ford, Rockefeller, and Carnegie—made significant grants to countries targeted by federal programs to staunch the appeal of Communism (Friedman & McGarvie, 2002, p. 320). Looking at the activities of these foundations in the1950s, Beckman (1964) and Friedman and McGarvie (2002) noted that each chose regions to concentrate their activities: the Ford Foundation in the Middle East and Asia; the Rockefeller Foundation the Middle East, Asia, Africa, and especially Latin America; and the Carnegie Foundation, limited by its charter to working in British or former British territories, focused on Africa (Friedman & McGarvie, p. 320-321). Zunz (2012) noted that many of these foundation projects happened to be in countries where the donors or the corporations supporting the foundations had significant financial investments.

Yet these very same foundations, even as they broadened their international focus in the 1950s and 1960s, faced new challenges on the U.S. domestic front. Scholars such as Havighurst et al. (1976), and Friedman and McGarvie (2002) noted that in the 1950s, many large foundations were investigated by Congressional staffers and called before House committees to refute charges that they were "engaging in left wing or socialist propaganda" (Havighurst et al., 1976, p. 83). Hall (2002) noted that the accused spy Alger Hiss had once been president of the Carnegie Foundation of International Peace, while other foundations had been too enthusiastic in their support for causes such as civil rights, economic justice, and world peace (p. 367). The old criticisms of their activities and the foundations' own public defenses of their actions came back to briefly haunt them as they were forced to defend their grants and philanthropic activities. However, the end of the McCarthy era saw these committees and their investigations abruptly disappear.

Corporate Foundations in the 1960s and 1970s

By the 1960s, however, Havighurst et al. (1976), Hall (2002), and Zunz (2012) all noted, corporate foundations were being investigated as the foundations and other non-profits were accused of being tax shelters for the rich, by allowing these donors to escape paying their fair share of federal income tax yet have some say over how their money was spent by the foundations and non-profits. Hall (2002) noted that in an attempt to classify what a foundation and charity actually was, the IRS provided clarification of what these organizations were to be defined as for tax purposes (the 501(C)s as they were called; p. 368). Yet, according to Hall (2002) the "the definitions of key terms like *charitable* and *philanthropic* were left troublingly vague" by the IRS (Hall, 2002, p. 368). In 1969, in order to deal with continued abuses by charities and foundations, a new Tax Reform Act was passed by both houses of Congress, which prohibited foundations from directly becoming involved in "any form of political or propagandistic activity" (Havighurst et al., 1976, p. 83). Fleishman (2009) also made note that the act made it illegal for any foundation to own more than 20% voting interest in any for-profit corporation. Thus the potential abuse of using a foundation to maintain control over a corporation was eliminated except for very few circumstances (Fleishman, 2009, p. 98)

The 1960s also saw the rise of federal government spending on all levels of education, which began to significantly outstrip the grants and donations made by corporate foundations. Havighurst et al. (1976) noted that President Johnson's administration's Great Society programs focused on the very same issues of poverty, discrimination, and other societal issues in education (and American society as a whole) that corporate philanthropy had been focused on since the first decade of the 20th century. Havighurst et al. pointed out that federal government spending in

the 1960s provided between five and ten times more money for educational initiatives than did foundations in the same period (p. 99). In an effort to compete, Karl & Katz (1987) pointed out, many of the philanthropies became "professionalized," using vast administrative staffs to make decisions about funding and grants, and alongside those changes there was a growing sense that working for a philanthropy was no different than working for any other business.

While the 1970s saw various attempts by philanthropic foundations to deal with the changes to the federal income tax code and the growth of government spending in their traditional areas of expertise and charitable and philanthropic giving, little changed from the late 1960s. Hall (2002) and Zunz (2012) both noted that John D. Rockefeller III helped to found the "501(c) (3) group" in an attempt to provide a unifying voice for the largest non-profit foundations in America. But despite the creation of the Filer Commission by the group to investigate the role of foundations in American society during the 1970s, the members' individual voices and the commission's report were too focused on fiscal issues and potential tax changes. According to Zunz, the members of the Filer Commission never asked some important central questions: Who benefits from philanthropy? What are philanthropy's commitments to public purpose? Can philanthropy produce an antidote to capitalism's excesses? (Zunz, 2012, p. 240).

Corporate Foundations since 1980

The election of Ronald Reagan in 1980 would change the political discourse surrounding the role of foundations and philanthropies in American society to a degree previously unseen. By the end of the decade, foundations and philanthropies had more power than previously imagined

and were closer to government bodies than at any time since the early 1930s, when they were working with the Hoover administration to ameliorate the worst effects of the Great Depression.

Hall (2002) made it clear that until the 1980s and the election of President Reagan, the American political right had been hostile to the role of foundations and philanthropy in American society. Reagan and conservative politicians in Congress during in his two administrations sought to reduce the size of the "big government" that had been established in the New Deal of the 1930s and further expanded during the Great Society of the 1960s. Reagan, according to Hall, called on the leaders of foundations and philanthropies to find new ways to make up for the federal government's cuts in social spending. This brought potential gains and benefits to the foundations and philanthropies that were being wooed by the Reagan administration. For example, proposed cuts to federal income tax rates suddenly made charitable giving less attractive to donors. For universities and colleges that had grown dependent on federal government largesse during the 1960s, the sudden threat of cuts in federal spending on higher education might result in a loss of 1/3rd of their annual revenues (Hall, 2002, p. 378).

Hall (2002) also pointed out that there was a concurrent rise to prominence of formerly quieter conservative foundations, such as the Lilly, Pew, Olin (note this is not the F.W. Olin Foundation), and Smith-Richardson foundations and charitable trusts, all of which demanded more say in shaping an emerging national philanthropic agenda (Hall, 2002, p. 380). President George Bush in 1988 further continued this shifting government reliance on private foundations, philanthropies, and charitable trusts to make up for reduced federal spending when he called for an increased role for voluntary organizations in American society (Hall, 2002, p. 380).

By the 1992 election, universities and colleges hoped that Bill Clinton's Democratic victory would restore some of the losses in government spending suffered during the Reagan and Bush years. But a political realignment had taken place over the last 20 years, shifting American politics to the right, including the Clinton administration. The Clinton administration, according to Hall (2002), continued the call for an increased and, frankly ever-increasing, role for philanthropies and foundations in American society. Yet, Hall pointed out that despite a more conservative alignment in views on the role of the federal government, in reality it did very little to diminish the federal government's role as the source of public policy initiatives and as a source of revenue for higher education and medicine. In many ways, it became apparent that the federal government simply shifted its contracts to non-profit charities and foundations, blurring the boundaries between government agencies and what had once been philanthropic foundations and charities (Hall, 2002, p. 382).

Fleishman (2009) and Zunz (2012) both pointed to a watershed year in the history of American philanthropy: 2006. That year, Warren Buffett agreed to donate $31 billion, over a number of years, to the Bill and Melinda Gates Foundation. Like Andrew Carnegie exactly a century earlier, Fleishman noted, Buffett became the greatest donor in the 21st century, giving away in 2006 dollars, more than two times what John D. Rockefeller, Sr. and Andrew Carnegie gave away combined (Fleishman, 2009, p. 45). What made this unique among American philanthropy was that Buffett did not give his money to a foundation in his name, but to another named organization, ensuring that as his money is spent, few people in the future will ever know the true source of the charitable funds and grants they are receiving.

Fleishman (2009) brings the story of American philanthropy up to the financial crisis of 2008 and provides some facts and figures to indicate how much the philanthropic landscape has changed in the last few years. Between 2008 and 2009, foundation assets declined 25-30%, the largest one-year drop since the Great Depression years of 1929-1930 (Fleishman, 2009, p. 2). Fleishman goes on to state that this same rate of decline has affected other non-profits, including university endowments, art museums, and hospitals, and in some cases, the endowments have dropped below their "book value"—the value at which they had first been established (Fleishman, 2009, p. 2). Add in the decline in individual donor portfolios as well as the Madoff investment scandal, thus reducing the overall funds available to be given to charities, non-profits, and foundations, and Fleishman was forced to admit that the total impact on foundations for 2009 and beyond was unclear at the time he was writing. He went on to say that this would likely be further impacted by an Obama policy to cap charitable deduction, further diminishing any incentive to make larger charitable gifts when they are needed most. Fleishman concluded that foundations, despite being severely impacted by reduced endowments, nevertheless were better off than grant-seeking charities and most universities.

History of Foundations and Philanthropic Giving to Higher Education

The academic study of the role of philanthropic foundations in higher education originated in 1935 with a dissertation by Pedro Rio, entitled "Thirteen Educational Foundations and American Higher Education" (Waldron, 1982, p.13). Rio's dissertation was soon followed by perhaps the seminal work of Ernest V. Hollis, his dissertation entitled "Philanthropic Foundations and American Education," submitted in 1938 (Waldron, 1982, p. 13). Both

dissertations focused on the role of philanthropic financial support for higher education. They both trace the history of foundations back to the creation of the Peabody Education Fund in 1867. However, Morison (1964) mentioned that the roots of the modern foundation could be traced back to the half-million dollars James Smithson left in 1829 "for the increase and diffusion of knowledge among men" (p. 1110).

Hollis (1938) focused a great deal of his subsequent academic research career on the role of foundations and universities. His dissertation was quickly published by Columbia University Press and received numerous reviews. Creager (1939), in a favorable review, pointed out that remarkably, much of the foundations' money to improve higher education did not go to schools of education, but to "professional middlemen" (p. 185). Gow (1939) reviewed the same book, but was slightly more critical, accusing Hollis of errors of omission. Gow argued that Hollis spent too much time focusing on the Carnegie and Rockefeller foundations, ignoring smaller foundations and did very little to discuss the future of foundations in relation to American higher education (Gow, 1939, p. 227). Hartshorne (1939) echoed the criticisms of Gow, pointing out that Hollis focused on only a handful of the more than 200 foundations that existed, thus limiting his ability to provide a complete quantitative analysis. (Hartshorne, 1939, p. 445)

Hollis (1940) in "Foundations and the Universities" argued that even the earliest grants by foundations influenced the direction of higher education but that it was difficult to track the outcomes of the specific reforms they sought to influence. However, Hollis claimed that since World War I, as the American public became more accepting of philanthropic activities, foundation money and prestige helped to support ideas that "originated for the most part by frontier thinkers within the profession" (Hollis, 1940, p. 178). Hollis went on to argue that the

most successful stimulation provided by foundations prior to World War I was to allow financially underprivileged undergraduate and graduate students to attend colleges and universities (Hollis, 1940, p. 179).

Hollis (1940) asserted that while foundations have aimed to influence cultural values, they have often done so through highly controversial means. According to Hollis, most of the philanthropic funding up to 1939 was assigned to research in the social and humanistic sciences. Hollis pointed out that as early as 1939, "foundations are no longer interested in the welfare of individual institutions but rather in promoting ideas" (Hollis, 1940, p. 181). By 1941, Hollis was looking into the role of foundations in current educational research. Hollis began with a discussion of how foundations influence educational research discussing their role in rejecting proposals and their methods of operation. Hollis again stated that while foundations are important in transforming libraries, museums, and art galleries into more publicly accessible spaces, their greater social influence is through research in higher education (Hollis, 1941, p. 291).

Kiger (1956) specifically looked at the role of large foundations in the American South. According to Kiger (1956), the origins of modern philanthropy were the Peabody Education Fund in 1867 and the John F. Slater Fund for the Education of Freedmen, established in 1882. While the amount of money provided by the Peabody Education Fund was small compared to modern foundations—just $3 million dollars from 1867-1914—"it was successful in creating a public school system in the post-Civil War South as well as providing funding for higher education in the form of teacher training" (Kiger, 1956, p. 126). The $1 million dollar Slater Fund followed a similar path as the Peabody Education Fund, though its funds were limited to

improving the education of African-Americans, and the two funds merged in 1914 as the Southern Education Foundation (Kiger, 1956, p. 126).

Kiger (1956) stated that the General Education Board, created in 1903 with funds provided by John D. Rockefeller, focused on Southern education. Over the next 50 years, the General Education Board spent nearly $300 million dollars on education, following the pattern of other foundations. Grants were initially for buildings and capital outlays, then the establishment of endowments for more specialized activities, and finally for research and faculty improvement (Kiger, 1956, p. 127). However, according to Kiger (1956), Southern colleges and universities were most lavishly provided financial aid and assistance by both the Carnegie Foundation for the Advancement of Teaching and the Carnegie Corporation. At the time of Kiger's article, he posited the idea that the Ford Foundation, established in 1949, had the potential to provide more aid to education than the Carnegie foundations had previously. Kiger (1956) argued that the Ford Foundation's greatest influence might be in its funding for personnel involved in teaching, especially at the graduate level and in teaching colleges and universities (p. 173).

Morison (1964) looked at the foundation-university relationship 20 years after the work done by Hollis. He stated that foundations had grown more interested in universities at the same time that their influence had grown (Morison, 1964, p. 1110). Morison pointed out that the two great foundations—Carnegie and Rockefeller—could trace their roots to both the Peabody Education Fund and the General Education Board of the 19th century (Morison, 1964, p. 1111). Wren (1983) stated that business philanthropy, such as that provided by Carnegie and Rockefeller in the 19th and early 20th centuries, played a significant role in funding higher

education, replacing funding lost by church-supported schools and before the rise of state-funded colleges and universities.

Morison (1964) stated that there were other trusts and foundations established at the beginning of the 20th century—including the Milbank and Commonwealth funds, the Kellog, Markle, and Macy foundations, along with the Russell Sage Foundation and the Twentieth Century Fund—that contributed to higher education in one form or another. However, Morison pointed out that in the case of higher education prior to World War II, there was a "major league" of foundations whose members included the Carnegie Foundation for the Advancement of Teaching, the Carnegie Corporation, the General Education Board, the Rockefeller Foundation, and the Laura Spelman Rockefeller Memorial (Morison, 1964, p.1111).

Morison (1964) pointed out that by the 1920s, foundations were already being seen by university administrators as challengers to their control over the academic institution. Morison also argued that foundations might be guilty of using their power to persuade universities to do things they might not otherwise have done (Morison, 1964, p. 1125). One way they achieved this was to persuade universities to pursue neglected fields of academic inquiry, such as the behavioral sciences (Laura Spelman Rockefeller Memorial) or the Rockefeller Foundation's funding of the interdisciplinary Institute of Human Relations at Yale University in 1929 (Morison, 1964, p. 1125). Foundations have also been responsible for moving psychiatry from the hospital to the medical school, and encouraging the study of foreign languages and cultures (Morison, 1964, p. 1126). Morison pointed out that the more "controversial" projects funded by foundations include investigations into the problems of race relations, sex behavior, and economics (Morison, 1964, p. 1127).

Morison (1964) noted that one of the more insidious problems of foundation funding skewing university priorities was in the creation of specialized institutes on college and university campuses. While these institutes are supported financially by the foundations, their faculty members are drawn from various university departments. As the years go by, the faculty members become more and more associated with the activities of the institute, yet their home departments are left footing much of the cost of their employment (Morison, 1964, p. 1128). Morison also argues that the situation is made worse with the inclusion of junior faculty who are often non-tenure research fellows, associates, or lecturers, who are not attached to any single department, and because of their "interdisciplinary" appointments, are not considered worthy of being given a tenure-track appointment by the traditional departments of the university (Morison, 1964, p. 1128).

Morrisett (1965), a senior executive in the Carnegie Corporation, offered up the viewpoint of the foundation in a counterpoint to the arguments advanced by Morison (1964) and other scholars. He asked the essential question that had been plaguing the field of foundation studies since Hollis: Is the influence of philanthropic foundations on education sinister or capricious? Morrisett argued that relation between foundation and the university was "one of independent working partners" (Morrisett, 1965, p. 446).

Walker (1980), in a study of giving patterns of Texas foundations to higher education discovered that grant requests for capital projects were one of the least attractive proposals while those for scholarship and people-oriented programs were the most successful (Waldron, 1980, p. 16-17). Sleeper (1985) went on to argue that things had changed dramatically since the earliest days of foundation giving to higher education. He provided some facts and figures for 1983:

private foundations provided just 1% of the $5.5 billion dollars in voluntary support for higher education. However, that 1% of funding was largely from just 40 of 22,000 philanthropic organizations, which granted at least $1 million dollars to higher education. What made these funds so attractive was that they were largely free from political meddling and donor restrictions (Sleeper, 1985, p. 12).

Sleeper (1985) suggested that the days of large unrestricted gifts from foundations were long gone. More importantly, corporate support for higher education had long surpassed independent foundation funding. By the 1980s, nine large foundations dominated spending in higher education: the Carnegie Corporation, the Exxon Educational Foundation, the Ford Foundation, the John D. and Catherine MacArthur Foundation, the Lilly endowment, the Andrew W. Mellon Foundation, the Northwest Area Foundation, the Rockefeller Foundation, and the Alfred E. Sloan Foundation (Sleeper, 1985, p. 14). They contributed at least $140 million dollars toward higher education, though the exact amount was probably much larger (Sleeper, 1985, p. 14). Sleeper argued that by the 1980s, foundation funding focused on three major areas: effective teaching in liberal arts institutions, support for minorities and women in higher education, and for university funding meant to solve larger societal problems.

Karl and Katz (1987) took a more controversial approach toward the role of foundations and the ruling class elites that fund them. They looked at the growth of academic criticism of foundations and their donors. They stated that Fisher (1983) argued that the purpose of foundations had been to restrain the development of revolutionary ideology in American social science (Karl & Katz, 1987, p. 2). They also point out that this radical criticism was summed up by Robert Arnove (1980) who argued that "foundations from the start, have played the role of

unofficial planning agencies for both national American society and an increasingly interconnected world system" and that foundations "represent a sophisticated conservatism…(that foundations) have promoted modes of inquiry that circumscribe the examination of value questions and ideological issues" (Karl & Katz, 1987, p. 2).

Karl and Katz (1987) argued that educational institutions, particularly the major research institution established in the 19th century, became the primary means for foundations and philanthropies to advance their goals. They focused their examination on the creation of the Russell Sage Foundation, and on the role of Olivia Sage in the formation of the foundation's goals. According to Karl and Katz (1987), Margaret Olivia Sage was not interested in contributing to university research, but in the development of social service professions, particularly those that advanced the role of women in modern society (p. 15-16). The foundation thus funded those individuals involved in advancing the role of social work and labor relations, especially where they focused on women and children. Where universities aided in this process, they were rewarded with funds from the foundation, and thus the 1910s and 1920s saw the growth of social work as a respected academic discipline.

Karl and Katz (1987) pointed out that some critics argued that foundations were created in part because of donors' fears of a socialist revolution. Foundations therefore sought solutions to social problems in a controlled way, rather than allowing socialist parties to gain power in the United States. To help spread an anti-socialist agenda in academia, many of the foundations hired former college and university presidents as their fund managers (Karl & Katz, 1987, p. 20).

Problems and Issues between Foundations and Higher Education

Fleishman (2009) noted that there is a paradox among all foundations in that they devote their efforts to changing society yet they rarely seek to measure, or even comprehend, the extent of the changes they actually produce (p. 49). According to Fleishman, this paradox has been at the heart of foundational operations since their formation in late 19th century. Foundations provide vast sums of money to various organizations, especially to higher education, but the results they get for their grants often pale in comparison to their expectations or what they had been promised by university officials.

Hollis (1938) pointed out that much of the funding provided by foundations for the first half of the 20th century went to educational institutions in the East and Midwest, and a significant chunk of money went to the South, where problems were seen as more dire and immediate. Much of this initial funding in the 1930s went to private institutions and often to a select number of elite colleges and universities, often directly connected to the foundations themselves. Hollis (1941), in follow up research to his ground-breaking 1938 study, made the argument that foundations were not infallible, admitting so themselves, especially when it came to choosing what research funding to provide. Interviewing several foundation officials, Hollis noted that at least in the case of higher education, foundation officials needed a better way to determine potentially successful research proposals from those they reject. What Hollis (1941) also made clear was that there was as much power in what proposals they rejected as in which ones they accepted and funded.

However, Havighurst et al. (1976) stated that by 1970, the funding by foundations was geographically more evenly spread out, though they did acknowledge that much of the funding

still went to the same private higher-education institutions first identified by Hollis nearly 40 years earlier, and that this funding was significantly more than was provided to public state institutions of higher education. They also noted that these same select universities received not only large corporate funding but also significant federal government support (Havighurst et al., 1976, p. 17).

May (1970) asked a significant question that illustrated one of the reasons that foundations continued to fund higher education. May (1970) argued that the primary question asked by foundations and other philanthropies was, "How does one justify increased investments in higher education?" May noted that many supporters of foundational giving to higher education justified that investment because it was also an investment in the corporate foundation's future and ensured that the foundation would be able to achieve its stated aims. According to May, colleges and universities receiving foundational funding produce the young men and women who will take the foundation's ideas and goals and implement them when they graduate as chemists, engineers, statisticians, business managers, marketing experts, and technicians. These vast sums of money were used to ensure the running of universities was in a sense paying back the foundation providing the grant. It is, according to Fleishman (2009), the same philosophical idea and justification that underlies the funding of generous tuition scholarships and grants by the Bill and Melinda Gates Foundation to Native Americans in the 21st century.

Crossland (1983) stated that it was virtually impossible to identify the true motives of the foundations—not simply their publicly reported purposes—for each of their actions. Thus, colleges and universities start any relationship with a foundation on unsure footing. Crossland pointed out that, regardless of their actual motivations, foundations were likely to view their

grants as sound investments in people, ideas, and institutions. Crossland laid out the complex and, some might argue, controversial process by which foundations provide grants to higher-education institutions. First, Crossland noted that it was generally impossible to determine both the origin of where an idea for any educational project or activity came from as well as the period in which it first came to the attention of the foundation that decided to support it financially.

Crossland (1983) made it clear that there was a popular misconception among higher-education institutions and the general public alike that a petitioner submits a formal grant proposal to a specifically chosen foundation for the fund requested. The belief was that this proposal was then evaluated by a formal committee or board of professionals trained in grant evaluation, where it was approved or rejected based on its merits after careful scrutiny. Crossland explained that in his opinion, the vast majority of grant proposals were rejected without the benefit of careful professional analysis.

So where do successful grant proposals come from? According to Crossland (1983), the germination of the idea usually comes from informal meetings between a foundation member and a member of the higher-education institution. The grants are then shaped by the foundation, either by a foundation grant officer directly shaping the formal proposal or by repeated conversations filled with suggestions and advice to the individuals seeking a grant from the foundation. According to Crossland, it is usually quite impossible to determine the source of a good idea, though usually it is the foundation that helps to shape a successful grant with those applying for the foundation's support. If Crossland was correct with his premise that the relationship between higher-education institutions and corporate philanthropy is so obviously

fraternal, it is an interesting conundrum that so many problems have arisen between foundations and higher-education institutions over the goals and expectations of foundation grants.

With the vast sums of money spent on higher education by foundations, for example, Bacchetti (2004) noted that the Atlantic Philanthropies alone had awarded more than $1.4 billion to higher education over the 20 years ending in 2002. Vest (2006) stated that U.S. corporations and corporate foundations provided more than $1.4 billion dollars to higher education alone in 2003. Vest also noted that since the 1980s, these same sources provided about 8% of the total research funding to higher education, while the federal government provided about 60% (p. 3). What Bacchetti found interesting was that these donations raised complex issues and increased the level of frustration between both the foundations and higher education.

What caused this increased frustration? According to Bacchetti (2004,) the source of these frustrations were related to Fleishman's (2009) earlier statement, and to a changing political environment. For Bacchetti, the reasons for a growing rift between higher education and the foundations that support them are based on some controversial ideas:

1) Friction between relatively liberal foundation agendas and more conservative college and university identities;
2) Frustration with the opaqueness of higher education with respect to accountability for results;
3) Uncertainty over whether universities will sustain programs that foundations begin with their funding; and
4) The perceived probability that generalized solutions to what are truly common problems will stay closeted within the particular institution that developed them. (Bacchetti, 2004, p. 10).

Bacchetti points out that the world of foundations is also subject to similar problems. Both foundations and institutions of higher education largely work free of oversight, with both believing they work in the public interest. However, neither organization, according to Bacchetti

has any mechanism to ensure that the work it does is both efficient and effective. Moreover, higher-education institutions believe that they should receive grants and funding to continue to do what they have always done, and rarely do these requests take into account that the foundation may have its own agenda and objectives. In fact, according to Bacchetti, the foundation's objectives and desires are rarely given any real credence by higher education officials. Institutional independence becomes an excuse for reinventing the wheel every single time, and leads to foundation frustration that their monies are being poorly spent.

Clotfelter (2007) echoed many of Bacchetti's original ideas and contributed two of his own. Clotfelter argued that, first, foundations want results for solving real world problems, and second, that foundations are increasingly skeptical that universities could provide these results. Clotfelter also pointed out that universities rarely understand the true nature of the relationship they are embarking on with foundations. The foundation, according to Clotfelter (2007), believes it is being promised a certain outcome, but the university administrators and faculty both see that outcome in different lights (p. 215). How does this work out in reality? As described in an example provided by Clotfelter, a foundation has broad objectives and ideas about how to achieve those objectives and who to fund to best achieve those outcomes. University administrators, with an endless need for money to support projects that will make the university more attractive to other donors and students, see the money offered by the foundation as a potential source to make some of these projects come true. Finally, Clotfelter suggested that faculty is driven to seek outcomes that best support their personal goals within their specific discipline. Rarely do these projects coincide with those proposed by university administrators, and more importantly, even more rarely do these narrow research outcomes fit with the broad

objectives sought by the foundation. Thus, the perfect recipe for misunderstanding and conflict arises (Clotfelter, 2007, p. 223-224).

Due to these growing divergences as well as changed financial situations in the 21st century, Bacchetti (2004) noted that by 2002, a series of foundations were either ending or cutting back their funding to higher education, including the Atlantic Philanthropies, the Kellogg Foundation, and the Pew Charitable Trusts (p. 10). Bacchetti pointed out that there was a growing and worrisome trend among foundations in their justifications as to why they were reducing their funding to higher education. Bacchetti noted that foundations were often in disarray, and this was a significant problem in contemporary society where distrust in government programs and effectiveness was growing. He also identified a fundamental flaw in most foundations' underlying thought process: despite considering themselves to be private charitable trusts, because of their tax-exempt status, they were receiving a partial subsidy from the American public, and thus they needed to be more responsive to the communities they served (Bacchetti, 2004, p. 12).

Bacchetti and Ehrlich (2006), writing under the auspices of the Carnegie Foundation and continuing the arguments that Bacchetti made in 2004, argued that education needs philanthropic foundations, as the latter spur improvements to higher education. They further argued that foundations need higher education to effect individual and collective change to the world. In *Reconnecting Education and Foundations*, Bacchetti and Ehrlich pointed out that philanthropic foundations contributing to higher education have a long history, from Andrew Carnegie who first saw education as worthy of his support to modern philanthropic organization who follow in

Carnegie's footsteps. However, Bacchetti and Ehrlich, in the same work, laid out a series of issues that have driven a rift between foundations and higher education.

Bacchetti and Ehrlich (2006) argued that foundation leaders view colleges and universities as unaccountable, setting their own agendas, and expecting foundations to support those agendas. Thus foundational and philanthropic grants to higher-education institutions often carry ever more stringent conditions and requirements to the funds being turned over. In response, according to Bacchetti and Ehrlich, educators claim that foundations and philanthropies are quick to abandon grants when they do not produce quick results, are too focused on measurable outcomes, and are risk averse despite their claims to seek innovation and change (Bacchetti & Ehrlich, 2006, p. 4). If this claim by Bachetti and Ehrlich is true, it raises an important point that some institutions of higher education may be so dependent upon these grants and outside sources of funding that they willing accept any associated restrictions and requirements on that funding without questioning the ultimate effects of those limitations on their college or university.

Bacchetti and Ehrlich (2006) went on to argue that by the 21st century, many philanthropic foundations and organizations, such as the Carnegie Foundation, Russell Sage Foundation, the F. W. Olin Foundation, and the Bill and Melinda Gates Foundation, were rethinking their current grant-giving philosophy to higher education, believing that higher education may not be truly enacting the individual and societal progress their grants were intended to initiate.

Bacchetti and Ehrlich (2006) also claimed that many higher-education institutions seeking grants often do not have the full information surrounding a foundation's aims and

accomplishments. If this is true, perhaps the acceptance of philanthropic funding by an institution of higher education may carry unforeseen burdens and associated costs, as well potentially risking the institution's academic independence.

Yet Bacchetti (2004) also argued that foundations contribute to these frustrations. Programs are often funded at levels that are not sufficient or those programs may end just before results are achieved. Foundations often set arbitrary limits on how long a program's funding can continue, but this often leads to universities never achieving any results worthy of further pursuit. Bacchetti (2004) also noted that foundations rarely communicate among each other, which leads to the same problems they accuse higher education of committing.

Vest (2006) added to the debate raised by Bacchetti and Ehrlich in their two articles. Vest stated that what most made universities afraid was the growing concept of "leverage," that universities would be forced to match the grants given to them by private donors. Clotfelter (2007) and Vest pointed out that large corporate donors and foundations increasingly resent the need to pay the full indirect costs required for research, thus forcing universities to seek other means to meet those financial costs. Fransen (2007), echoing Vest and other earlier scholars, noted that to be successful in securing foundation funding, universities had to be more aware that they needed to provide results and that these results would be achievable in the short term. Moreover, both Clotfelter and Fransen pointed out the corporate foundations are not only result driven, but are clearly aware of the differences between results and simple output. Both acknowledge that foundations will no longer provide research funding simply to settle esoteric discipline-related questions or debates. Simply put, Fransen stated that higher education must move away from the simple output model that governed foundation giving for so many years and

move toward promising and providing genuine results that can be measured and hopefully replicated.

A Brief History of Florida Institute of Technology

Melbourne, Florida in 1958 was on the cusp of change. A relatively sleepy community in the aftermath of World War II, Melbourne would soon see rapid population and economic growth. Patterson (1998) noted that it was the geographic location of Cape Canaveral that resulted in it being chosen by both the Air Force and later the National Aeronautics and Space Administration (NASA) to be the heart of the nation's space program. The existence of the Cape Canaveral Air Force Station, which was the center of the military's rocket testing program, meant that the region would need an influx of engineers and scientists to aid in the challenges of the emerging Cold War space race. Wilson (2008) stated that it was Dr. Jerome P. Keuper, the chief scientist of RCA's Systems Analysis Group, who founded Florida Institute of Technology as the Brevard Engineering College (BEC) in 1958. Assigned to work on the burgeoning space program at Cape Canaveral Air Force Station, Dr. Keuper realized that there was no institution of higher education available for the civilian engineers, technicians and scientists with NASA and its support agencies to continue their education. He vowed to establish a "night school for missile men" in Melbourne, using rented public educational facilities; however, the BEC soon ran into trouble with the local school board due to the racially neutral polices advocated by the college administration towards admissions (Wilson 2008, p. 4). The enrollment of two African-American engineers forced the BEC to leave the local high school where evening classes had been held. In the segregated South of the late 1950s and early 1960s, this meant that the school was forced to look for new accommodations (Wilson 2008, p. 4).

For two years, night classes were held at the Melbourne Methodist Church, but this solution was insufficient to address the growing college's space problem. In 1961, the college administration purchased the former facilities of the University of Melbourne, which had been in existence briefly during the years immediately after World War II (Florida Institute of Technology (n.d.)). . With only a single building, the BEC administration undertook a massive building program in the 1960s, constructing classrooms and laboratory space, as well as dormitories, student athletic space, and a library. This building program was matched by the drive for accreditation by the Southern Association of Colleges and Schools that was completed in 1964. In 1966, the college changed its name to Florida Institute of Technology and promoted itself as a university (Florida Institute of Technology, n.d.).

By 1972, Florida Institute of Technology began to expand, opening a series of regional campuses to offer graduate degrees for serving military personnel. For the first 16 years, the majority of students attending Florida Institute of Technology were part-time graduate students, but that ratio would change in 1974 when more than half of the enrolled students were full-time graduate and undergraduate students. Enrollment would continue to grow, from the original 225 graduate students to more than 4,000 by the early 1980s (Florida Institute of Technology, n.d.).

In 1986, Dr. John E. Miller became the second president of Florida Institute of Technology. He had served as the long-time vice-president for academic affairs (1966-1975) and the executive vice-president (1975-1986); however, he was president for only a single year, being replaced in 1987 by Dr. Lynn E. Weaver who came to Florida Institute of Technology from his position as the dean of engineering at Auburn University (Florida Institute of Technology, n.d.).

Dr. Weaver's presidency oversaw not only an expansion of Florida Institute of Technology, but also the pursuit of the F. W. Olin Foundation grant that is the subject of this thesis. During Dr. Weaver's initial ten years as president, several construction projects were undertaken which reshaped the physical geography of the campus. These projects included the renovation of several structures originally constructed in the 1960s, as well as the purchase of more laboratory space. Yet by the early 1990s the financial wherewithal of the university did not allow for the construction of truly modern facilities for the study of biological and physical sciences and the various fields of engineering (Wilson, 2008, p. 63). This lack of financial assets and modern scientific and engineering infrastructure prompted the university administration to apply for a grant from the F. W. Olin Foundation.

In the end, the grant and the matching funds were secured, resulting in the construction of three buildings: the F.W. Olin Engineering Complex, the F.W. Olin Life Sciences Building, and the partial funding of the Charles and Ruth Clemente Center for Sports and Recreation. In 2005, the additional grant from the F.W. Olin Foundation and the university's matching funds led to the opening of the F.W. Olin Physical Sciences Center (Florida Institute of Technology, n.d.). While these buildings did transform the physical landscape of Florida Institute of Technology, providing the modern facilities that university had originally sought when pursuing the original grant, there was also a more hidden transformation of the university, including its ability to raise matching funds relatively quickly. There is no better example of this hidden transformation than the university's ambitious goal to raise $50 million during a capital campaign celebrating the university's 50th anniversary in 2008. When the $50 million goal was reached and exceeded by the end of 2009, this five-year long capital campaign exemplifies the transformation the

university's administrative side had undergone in the years after the F.W. Olin Foundation grant had been secured (Florida Institute of Technology, n.d.).

A Brief History of the F. W. Olin Foundation

While detailed information on the F.W. Olin Foundation and its organizational workings are relatively scarce, some information about the foundation and its historical origins are available from scattered sources. Gries' (2009) brief history of the Franklin W. Olin Engineering College provided one of the few definitive histories of the F. W. Olin Foundation. Franklin W. Olin was born in Vermont in 1860, attending school until the age of 13 before working for his father, Truman, who was a well-respected millwright (Gries, 2009, p. 3). Largely self-educated, Olin managed to pass the entrance exam to Cornell University at the age of 22, going on to pursue a degree in engineering (Gries, p. 3). Uniquely in those days, Gries mentions that Olin not only attended classes, but also played semi-professional and professional baseball as an undergraduate, only dropping out of the sport when he graduated from Cornell University in 1886 (Gries, p. 4).

Olin, a trained civil engineer, eventually became involved in the black powder manufacturing business, setting up his own company, Equitable Powder Manufacturing Company in 1892 (Gries, 2009, p. 4). By 1898, according to Gries, Olin had constructed an ammunition manufacturing plant and began to expand into all aspects of ammunition industry. His companies became extremely profitable during the two World Wars, securing large government contracts for ammunition and explosives (Gries, p.5). This wealth would form the money supporting the F. W. Olin Foundation.

Though Olin would not pass away until 1951, he had given up control of the company to his two sons in 1944 (Gries, 2009, p. 5). Olin, however, had decided in 1938 to donate a significant amount of his fortune to a charitable foundation established in his name, shored up by controlling stock interests in the companies he had built. According to Gries, his two sons bought back the shares his father had given to the foundation at the cost of $50 million to secure control of the companies they now ran. The repurchase of the shares became the initial funding for the foundation's philanthropic activities (Gries, p. 6). Olin left the foundation's charitable giving in the hands of its board of directors, but he did shift the course of giving with two large gifts: the first to Cornell University in 1940 to construct a chemical engineering building, and the second to start a vocational school in his adopted hometown (Gries, p. 6-7).

Gries (2009) noted that Olin never left the foundation a mission statement, so the board of directions decided from 1951 to follow the "guidelines" Olin had personally laid out with his two gifts: to give money to colleges and universities, and to communities to improve the life of their residents. By the late 1950s, the foundation decided to focus its giving on private colleges and universities that did not have access to large amounts of public funding (Gries, p. 7). Gries pointed out that the board made sure that the following two criteria also applied to the grants they gave: they would largely be for science and engineering buildings, and that the buildings would be fully equipped with laboratory equipment enabling them to function from the day they were formally opened for use. While most of the money to colleges and universities went to science and engineering projects, money was also given to schools for libraries and performing art centers (Gries, p. 8). Because the grants were fairly substantial to cover the "soup-to-nuts" construction costs, the foundation averaged only two to three grants per year (Gries, p. 8).

The foundation members, Gries (2009) clarified, made large donations to specifically "transform institutions by filling long-standing needs, (thereby) freeing up capital for additional expansion and acting as a catalyst to energize additional capital funding," (p. 8). According to Gries, the money for smaller private schools often was the main driving force behind a larger fundraising capital campaign. The generosity of the foundation meant that there were several hundred applicants for grants, but the limited number of awards meant that applicants often waited years for a response. In addition, the limited staff necessitated that the foundation's board members were personally involved in each and every grant award, overseeing the funding awards thus further limiting the number of awards that could be offered.

The 1970s saw a change of leadership at the top of the Olin Foundation board of directors, largely meant to bring in younger men. In 1987, the Olin Foundation formally changed its name to the F. W. Olin Foundation to distinguish it from other Olin Foundations established by his sons (Gries, p. 9). The new board streamlined the procedures for awarding grants, instituting annual oversight procedures and reporting for those awarded grants. Economic changes caused the board to rethink the direction of the foundation in the 1980s. Changes to federal tax law forced the foundation to sell off its largest financial interest, Federal Cartridge Company, whose profits, according to Gries, provided most of the revenue for the foundation (Gries, p. 10). In the early 1990s, with none of the board members having any direct connection to Franklin Olin, and few with any connection to the various Olin companies, the future of the foundation was in jeopardy.

Gries (2009) noted that it was Lawrence Milas, who had been legal counsel for the Olin Foundation prior to his presidency of the renamed F. W. Olin Foundation, who had to make a

decision: to make two to three large grants to colleges, or to make a series of smaller grants to all of the colleges seeking funding, and then wind down the foundation (p. 11). Milas presented three possible plans to the board of directors in 1993: give all of the money to a small school to raise it to an elite university status; use the money to start an engineering program and college at a school that did not have one; or use the money to start their own school (Gries, p. 11). Schwartz (2007) quoting Lawrence Milas explained why Milas was in favor of a new school: "(I) had grown frustrated with a process that helped school but didn't change engineering education" (p. 1). Gries noted that Milas sold the idea of a new engineering school to the board by promising to make it a different school, one that would seek to train engineers in a different way then was done by the more than the 100 schools that had applied for money from the foundation in the past. By 1997, Schwartz and Gries noted that the board began wrapping up its other grants and set down the path of devoting the remaining funds, nearly $400 million, to establish a new college, the F. W. Olin Engineering College, to be located in Needham, MA (Gries, 2009, p. 14). By the time the board decided to close its doors in 1997, they had awarded more than $300 million to 58 institutions (Gries, p. 9).

The Relationship between the F. W. Olin Foundation and Florida Institute of Technology

Under the leadership of President Lynn Weaver, Florida Institute of Technology applied for a grant from the private F. W. Olin Foundation. The F. W. Olin Foundation, established in 1938, had a history of making "transformational" grants to private colleges and foundations, largely for the construction of new buildings ("F. W. Olin Foundation," 2012). On June 3, 1997, the F. W. Olin Foundation awarded Florida Institute of Technology $50 million, the largest grant

the university had ever received and the largest single financial grant the foundation had ever given. Within two years, the same foundation awarded the university additional funds amounting to $14 million to complete a complex of three new buildings dedicated to engineering and the life and physical sciences. These gifts were also meant to enrich the university's endowment and provide the funding for a series of student scholarships. However, Florida Institute of Technology was faced with a "challenge" clause to raise $12 million of their own matching funds before the primary $50 million grant would be dispersed. Preliminary research indicates that this sum, $12 million, was more money than the university had ever been asked to raise at any given time. With a relatively short period allowed by the terms of the grant to raise these funds, Florida Institute of Technology had to embark on a fund raising program at an unprecedented rate and of a heretofore unheard of scale for the existing institutional structures. These grants and the fund raising efforts that secured the F.W. Olin Foundation grants transformed Florida Institute of Technology in significant ways, resulting in perhaps the greatest period of transition since its humble founding in 1958.

Interestingly as a parallel development to the issuing of the $50 million grant to Florida Institute of Technology, the board of trustees of the F. W. Olin Foundation decided to change its mission by opening up its own university in Needham, MA, with the remaining foundation endowment of nearly $400 million at the end of 1997. These grants to Florida Institute of Technology would become the last grants the 60-year old F. W. Olin Foundation would make. The establishment of their own Franklin W. Olin College of Engineering would build upon principles laid out in the original mission of the F. W. Olin Foundation yet it would also put the newly established university in competition with private colleges and universities the foundation

had assisted throughout its history, including the 40-year old Florida Institute of Technology. In accepting the last grant of the F. W. Olin Foundation, Florida Institute of Technology would be further challenged in ways its founders had perhaps never envisioned and which scholars examining the long and often contentious relationship between foundations and higher education had warned.

Resource Dependence Theory (RDT)

According to Pfeffer and Salancik (1978), authors of *The External Control of Organizations: A Resource Dependence Theory,* Resource Dependence Theory, or RDT, proposes that actors lacking in essential resources will seek to establish relationships with (i.e., be dependent upon) others in order to obtain needed resources: "The potential for one organization influencing another, derives from its discretionary control over resources needed by the other and the other's dependence on the resources and lack of countervailing resources and access to alternative sources" (p. 53). Johnson (1995) stated that organizations, given a scarcity of any particular resource, often alter their behavior and/or structure of their organization to ensure that they receive the resource they wish to obtain.

Pfeffer and Salancik (1978) reasoned that administrators and managers could respond to their organizational dependence in any number of different ways, and these forms may not necessarily be concrete but may be symbolic in nature. Moreover, Pfeffer and Salancik stated that organizations attempt to alter their dependence relationships by minimizing their own dependence or by increasing the dependence of other organizations on them. Within this perspective, Pfeffer and Salancik argued that organizations are viewed as coalitions alerting their

structure and patterns of behavior to acquire and maintain needed external resources. Acquiring the external resources needed by an organization, Akbari (2005) argued, comes by decreasing the organization's dependence on others and/or by increasing other's dependency on it, that is, modifying an organization's overall power relationship with other organizations. Davis and Cobb (2010) noted that this could be summed up as a bit of advice to managers: "choose the least-constraining device to govern relations with your exchange partners that will allow you to minimize uncertainty and dependence and maximize your autonomy" (p. 6).

Johnson (1995), Hillman, et al. (2009), and Davis and Cobb (2010) examined the long history of resource dependence theory (RDT), noting that it brought the complex issues of power and control to the forefront of organizational studies. Davis and Cobb noted that the theory spread from management studies to education, political science, sociology, psychology, health care, and public policy studies starting in the 1980s. Examining why RDT spread so rapidly and across varied research fields, Davis and Cobb admit that it was likely due to a number of factors, including the power and prestige of Stanford University faculty who were among the first to adopt RDT in their research.

The theory declined in application in the late 1980s and 1990s, according to a review of citations conducted by Davis and Cobb (2010), again for a variety of reasons involving new and competing theories, but saw an upsurge in the 21st century. Johnson (1995), looking at the limitation of RDT, argued that theory lacked the ability to clearly separate between the environment in which an organization operated in and the organization itself. Johnson stated that RDT had a hard time separating out the real difference between the assumption that the environment affected the organization rather than how much the organization affected the

environment in which it exists (p. 14). Johnson went on to argue that RDT also had a difficult in separating the influence of individual actions and the role of individual influence at the organizational level. He presented a third weakness of RDT, which was where does a researcher place their focus: on the organization itself, the relationships of the organization to those dependent on it, or on the amount and nature of the resources of the organization (p. 15). Finally, Johnson stated the potential greatest limitation is also the greatest strength of RDT: the focus on materialistic forces rather than on potential other forces (cultural, ideological, institutional tradition, etc.) that may affect the power dynamic (p. 16).

Hillman, et al. (2009) looked at the continued importance of RDT on several area of business management techniques and corporate behavior, arguing that RDT theory was an accurate model for portraying inter-organizational relationships as well as the actions of boards of directors, and the use of power and resource control in corporate mergers and acquisitions. According to Davis and Cobb (2010), there is a new revival in RDT research that is doing three things: testing the original assumptions made by Pfeffer and Salanick thirty years ago, offering alternative strategies, and filling in the gaps of the original theory (Davis & Cobb, 2010, p. 23). Davis and Cobb make the argument that the global economic crisis of 2008 sparked a return in interest to RDT as the issues that sparked Pfeffer and Salanick to write in 1978 are similar to ones found today: a global economic crisis, dissatisfaction with the current political leadership and increased social activism, all wrapped up in the twin issues of power and dependency (p. 24). Hillman, et al. (2009) argued that despite its success, RDT remains a powerful tool and robust theoretical framework for guiding research.

Froelich (1999) looked at the resource dependence of non-profit organizations, pointing out that non-profit organizations, which including many colleges and universities, pursue traditional fund-raising opportunities from individuals and corporations to operate. This usually involves the writing of grant applications to secure these available funds. Froelich based her research on that of Pfeffer and Salanick (1978) noting that their fundamental idea that "organizational survival is based on the ability to acquire and maintain resources" and that these resources are never adequate, stable or always available (Froelich, 1999, p. 247). Froelich stated that organizations are not autonomous agencies pursuing their own agendas, but actors constrained by their resources needs, and therefore reliant on those providers for their very survival.

While Froelich (1999) focused on non-profit charities, her work is broadly applicable to other non-profits including institutions of higher education. Froelich discussed the fact that as traditional resources become scarcer, non-profit institutions are forced to look for new sources of revenue, often through commercial enterprises that may occasionally cause them difficulties with individuals and corporate sources of revenue. For example, a university may establish a research for-profit partnership with its faculty to sell or market the findings of its corporate sponsored research activities. According to Froelich, such a situation places the non-profit institution at a unique disadvantage as it continues to be reliant on traditional forms of fund-raising.

Froelich (1999) also notes that corporate and individual foundation grants often are laden with conditions and corporate concerns over how the grant is to be spent. Froelich, quoting Useem (1987), stated that since the 1970s, corporate philanthropy "is probably more closely aligned to immediate corporate self-interest, more professionalized in execution, and more

transforming of the recipient organization (p. 252). In return, the demands of the corporate giver, according to Froelich resulted in non-profit organizations coming to resemble for profit corporations (p. 253).

Froelich (1999) indicated that the process is even more difficult when it comes to independent foundational grants provided by organizations like the Ford or Carnegie foundations. Froelich noted that the grants are often particularly large, exceeding $1 million, often provide a multiple year funding stream, and provide the recipient with the prestige of being awarded one of these very public grants. According to Froelich these grants often require the recipient to provide matching funds or additional sponsors, but they rarely allow an organization to follow its own agenda with the funds; additionally, in the worst cases, the grants provide only seed money for new programs or research and lack any form of long-term commitment.

Tolbert (1985) applied RDT to higher education and administrative actions at private and public universities. Tolbert argued that the need for stable flow of external resources affected how administrators interact with each other as well as how the level of dependency determines how many administrative offices will be needed to deal with external funding. Tolbert's quantitative analysis, however, was inconclusive and called for more research on the role of RDT and other theories to discuss the how resource dependence affects both the numbers of administrative officials involved in securing funding for higher education and how those administrators interact with each other.

Zha (2009), applying RDT to higher education, stated that colleges and universities in the 21st century exist in a market driven environment, one where public support has not kept pace with expenditures. Thus colleges and universities are driven by the need for additional sources of

income to compete with each other for outside sources of funding. Zha further states that this competition among higher-education institutions tends to favor research oriented institutions that offer full educational programs rather than smaller liberal arts colleges that offered more limited majors and types of degrees. Employing RDT theory to this situation questions the extent to which these research-oriented institutions find themselves dependent upon the foundation's resources due to the greater competition with other colleges and universities. Thus the frame of resource dependence theory is to be used in this study to as a means to understand the complex interactions between Florida Institute of Technology, a research oriented institution as defined by Zha (2009), needing outside funding to ensure the institution's growth and future success, yet constrained by the terms of dependence (raise X dollars by Y date or lose the entire $50 million grant) imposed by the granting institution, the F.W. Olin Foundation.

Institutional Autonomy and Higher Education

One of the enduring questions in higher education research involves institutional autonomy and who exactly controls academia. Schmidtlein and Berdahl (2005) point out that universities, unlike many other organizations, are made up of professionals who possess a great deal of not easily transferable knowledge. The control over this knowledge grants professors and thereby universities a great deal of autonomy. Schmidtlein and Berdahl (2005) go on to point out that where in a traditional organization the administrative figures attempt to control those beneath them through the exertion of power, knowledge is an individual "property" and therefore not easily transferred or controlled by those in authority (p. 72). Schmidtlein and Berdahl (2005) go on to argue, therefore that "this highly individualized principle is diametrically opposed to the

very essence of the organizational principle of control and coordination by superiors (p. 72)."

Schmidtlein and Berdahl (2005), repeating claims by earlier authors, state that colleges and universities have long embraced the idea that they operate with a great deal of autonomy and with little outside oversight. While this may not necessarily be true, especially for higher education institutions funded by the public purse, the history of higher education administration is filled with a pervasive belief that autonomy is central to the successful pursuit of research. Schmidtlein and Berdahl (2005) argue that higher education institutions are often forced to make compromises and find a way to accommodate conflicting objectives imposed on them by numerous external and internal political interests (p. 76)

Zusman (2005) notes that institutional autonomy and administrative control have come under increased pressure due to 21st century financial changes for funding higher education. Zusman argues that budgetary constraints may lead to both greater centralization and decentralization of authority. For example, Zusman (2005) notes that budgetary contractions often left faculty with less control and say over university operations, yet the demands by university administrators for certain academic units to become self-supporting through fund-raising or external grants left those able to achieve self-sufficiency less inclined to follow any institutional mission (p. 125).

Harcleroad and Eaton (2005) note that there are five types of foundations: community foundations, family or personal foundations, special purpose foundations, company foundations and independent national foundations such as the Carnegie, Rockefeller and Ford Foundations (p. 256). Harcleroad and Eaton (2005) note that it is these large independent national foundations that are most likely to entice colleges and universities into doing things they might not otherwise

do. This is achieved, according to the authors, by the foundations' choice of what areas to fund, but they also acknowledge that foundations are prone to rapidly change their interests. Harcleroad and Eaton (2005) stridently note, "although their (foundations) grants provided a relatively small proportion of the total financing of institutions, they have had significant effects on program development and even operations" (p. 257). Thus the demands and conditions of the grants offered by these foundations often significantly affect the autonomy of university administrations that pursue and receive such sources of funding. Harcleroad and Eaton (2005) note that, perhaps even more troubling, is that while almost all private foundations use the same model for distribution of funds, that the federal government has also adopted this model for funding from agencies such as the National Science Foundation and the Nation Endowments for the Arts and the Humanities (p. 258). However, it should be noted that institutional autonomy would only be affected if the institution actually accepts the grant being offered by these foundations.

Conclusion

The relationship between higher education and corporate foundations and philanthropies has been a long and complicated history. While foundations such as the Carnegie, Rockefeller and Ford Foundations have provided large sums to improve higher education, through faculty salaries, numerous research grants, construction of university facilities and by providing new educational opportunities for students, all of these grants have come with their own occasionally conflicting expectations and assumptions.

However, in a changing financial world, with fewer research dollars to go around to more

and more institutions seeking their support and with new expectations from foundations for implementable real-world solutions to be provided for their grants, creates an atmosphere where the tension between higher-education institutions and corporate foundations and philanthropies are likely to grow in the 21st century. This was illustrated, in part, by briefly examining the histories of the F.W. Olin Foundation and Florida Institute of Technology, who serve to represent the sometimes codependent relationship between America's corporate foundations and her institutions of higher education.

Finally, the model provided by resource dependence theory was reviewed and presented as a conceptual framework for this study.

CHAPTER THREE: METHODOLOGY

Introduction

This chapter discusses the methodology used in the research conducted as part of this case study. The first section of this chapter is a discussion of the research design followed by the research questions that were used in guiding the direction of the research to be undertaken. Also included in this chapter are an overview of the data collection procedures used, an interview protocol and the data analysis procedures employed. Research trustworthiness and the triangulation of data are discussed, and a brief summary concludes this chapter.

Research Site Context

The research for this dissertation was conducted at two primary sites. The first site was Florida Institute of Technology, a private four-year university located in Melbourne, Florida. Florida Institute of Technology is a private, multi-campus higher-education institution primarily educating graduates in the sciences and fields of engineering. This site was chosen because it houses the documentary archives of Florida Institute of Technology, some of the personal papers of former President Dr. Lynn Weaver, as well as the papers of the current administration led by President Dr. Anthony Catanese and the Chief Operating Officer and Chief Academic Officer (Provost) Dr. T. Dwayne McKay.

The second site was the Franklin W. Olin College of Engineering located in Needham, Massachusetts. The Franklin W. Olin College of Engineering was established by the F. W. Olin Foundation from the remaining funds available to the foundation in 1997 (F.W. Olin Foundation,

2012). The original offices of the F. W. Olin Foundation in New York City were closed and all operational records were assumed transferred to the Franklin W. Olin College of Engineering in 2000. However, this turned out not to be the case. The location of the foundation records is currently unknown, though circumstantial evidence points to materials being held by the last foundation chairman, Lawrence Milas.

All travel to and from these sites was self-funded by the researcher.

Research Population

Interviews were conducted with several principals involved in the relationship between Florida Institute of Technology and the F.W. Olin Foundation. These individuals included former Florida Institute of Technology President Dr. Lynn Weaver, as well as three other senior university administrators, former and current, still living in the Melbourne area. Dr. Weaver's preliminary interview provided the names of these individuals and some idea of how much additional information they could provide to the body of research being assembled. This interview was conducted in the presidential conference room on the campus of Florida Institute of Technology.

Also included in the list of these interviews were current President of Florida Institute of Technology, Dr. Anthony Catanese, John "Jack" Hartley, former chairman of the university board of trustees, and John Milbourne, Director of Facilities. Preliminary discussions with Florida Tech Provost and Chief Operating Officer, Dr. T. Dwayne McKay indicated that he oversaw the last few years of the grant from the F. W. Olin Foundation between 2002-2005, but he had not real information to provide on the matter. I had hoped to be able to contact several of

the retired members of the F. W. Olin Foundation board who were serving at the time the grants were given to Florida Institute of Technology and who also were involved with the foundations' closure. However, three of the board members refused any contact (Lawrence Milas, William Horn and William Norden) and one has since passed away (William Schmidt). William Horn at least responded to an email inquiry, but stated that he had nothing to add to the public record. All correspondence through email, regular U.S. mail, and phone calls with Lawrence Milas and William Norden was refused.

Research Questions

The research for this study was guided by the following three questions:

1. In what manner, and to what extent, were the institutional autonomy and operations of Florida Institute of Technology affected by the awarding of a $50 million grant from the F. W. Olin Foundation in 1997?
2. In what manner and to what extent did the conditionalities of the grant from the F. W. Olin Foundation (especially the request for matching dollars) impact the relationship between the foundation and the university?
3. What were the long-term administrative and organizational effects for Florida Institute of Technology in accepting the $50 million grant from the F. W. Olin Foundation?

Research Design

The research for this study, in the broadest possible context, looked at the complex relationship underlying any relationship established between foundation grantors and the higher education grantee. However, since the specific relationship examined is between just two institutions, the foundation grantor represented by the F. W. Olin Foundation and the higher education grantee embodied by Florida Institute of Technology, the specific research method employed used was a qualitative case study.

Stake (1995) and Creswell (2007) defined a case study as research that involves the study of an issue (in this specific case, that of the role of grants and external funding on higher education) through one or more cases within a bounded system (higher education, in particular Florida Institute of Technology). Creswell (2007) states that case study research requires an exploration of a bounded system (the case), through detailed, in-depth data collection involving multiple sources of information, and reports a case description and case-based themes (p. 73). In this research study those "multiple sources of information" will mainly involve the use of primary and secondary documents and interviews. Creswell (2007) provides a concise definition of a bounded system where he states that the case selected for study has boundaries, often defined as both time and place, or a specific context. A bounded system also has interrelated parts that form a whole; hence, the proper case to be studied is both bounded and a system (Creswell, 2007, p. 244). In this study, the boundaries are clearly defined by the terms of the grant that covers a three-year period between the years 1997-2000. However, the material discussed finds the boundaries stretched earlier to include the preliminary negotiations between

1995-1997 and ending with the immediate period after the termination of the grant's funding in 2000-2011.

Creswell (2007) discussed that the differing types of qualitative case studies are defined by the size of the case and the terms by which the case is examined (p. 74). After discussion with my dissertation chair, I decided that the most useful type of case study to be used as a model methodology for my research was an intrinsic case study. Creswell (2007) defined the intrinsic case study as one that focuses on the individual case because it presents an unusual or unique situation (p. 74). The intrinsic case study, Creswell (2007) further defined, also incorporates aspects of narrative research, but is separated from the narrative approach because the emphasis is on the detailed description of the case set within its own context (p.74-75).

In this case study, the context is the larger issue of external funding of higher education by foundations and the implications of accepting such funding on the internal policies and culture of the accepting institution. The specific case involved the grant offered by the F. W. Olin Foundation to Florida Institute of Technology in 1997. The unique or unusual situation was met in the following ways:

1) It was a particularly large grant, $50 million, with an additional grant of $14 million, raising the total to $64 million,

2) It was the largest grant given to a single institution by the F. W. Olin Foundation, as well as the last grant given after more than 60 years of operating as a foundation,

3) It was the largest grant ever accepted by Florida Institute of Technology,

4) Preliminary research indicated that acceptance of the F. W. Olin grant required the school to transform its university culture, as well as its internal and external infrastructure.

Completed research confirmed all of the above ways in which the case study proved to be unique, and especially the transformational aspect as explained in the following chapters.

The larger question, though, was whether this particular case made for a good case study. I believed that not only was this a good case study, but it also was that the unique or unusual aspects of the case made it even more important to discuss in depth. Creswell (2007) listed his criteria for measuring a "good" case study:

-Is there a clear indication of the case or cases in the study?

-Is the case used to understand a research issue or used because the case has intrinsic merit?

-Is there a clear description of the case?

-Are themes identified for the case?

-Are assertions or generalizations made from the case analysis?

-Is the researcher reflexive or self-disclosing about their position in the study?

There is a clear indication of the case under study, and that is of the grantor-grantee relationship between the F. W. Olin Foundation and Florida Institute of Technology. How does the role of higher education finance, particularly financial relationships involving grants from philanthropic organizations, influence and shape decision-making processes at the institution receiving the grant? I think the case can be used to both understand a research issue, that of philanthropies and higher education, as well as because the case has intrinsic merit. For this particular case, support for the intrinsic merit definition would include the following facts: the grant of $50 million by the F. W. Olin Foundation was the largest grant the foundation had ever made during its lifetime, and was $1/6^{th}$ of the total amount of money the foundation had

dispersed since its origins in 1938; the F. W. Olin Foundation provided a second grant of $14.1 million dollars, even after closing its doors and ceasing operations in 2001; the first grant required a matching grant of $25 million to be raised by Florida Institute of Technology, which was the largest sum of money than the university had raised since its creation in 1958; the grant was meant to "transform" the university physically, through the construction of new buildings, which it did, but questions remain about how the grant may have required Florida Institute of Technology to "transform" the university's administration and culture in ways unforeseen by either the grantor or the grantee.

The idea of emergent design underlies and influences much of the research that was conducted. Creswell (2007) stated that in the qualitative process of emergent design, the phases of the research process might shift and change over time as the researcher begins to gather data. Interviews with key participants or documentary sources revealed may lead to unforeseen avenues of inquiry. It is possible that the research questions may themselves shift or be modified depending on the materials and information uncovered by the researcher.

The research design ideas shape the actual process of collecting data. This consisted of two major stages: collecting documentary research and conducting interviews. The documentary research came from a variety sources, not limited to the following list of external sources: newspaper articles, press releases by both Florida Institute of Technology and the F. W. Olin Foundation, committee and annual reports from both institutions, and any form of public contact not described above, including the potential for discovering interviews that were conducted with the principal figures during the period under discussion.

Also included were Florida Institute of Technology's internal correspondence with the F. W. Olin Foundation, as well as the F.W. Olin Foundation's internal correspondence with Florida Institute of Technology. Research was expected to uncover the original grant application, grant review materials, grant award notification, emails and faxes between the two institutions detailing the implementation and expectations, and letters and memos from both organizations and any other form of records that might be discovered. However, most of this material has either disappeared or I did not receive access too. Nevertheless, copies of the 2002 grant report and application, as well as a faxed response were available for study and to correlate information acquired through interviews. These archival records were believed to be housed in a variety of locations at Florida Institute of Technology, in Melbourne, FL, at the F. W. Olin College of Engineering in Needham, MA, and among the personal papers of the various figures involved from both organizations. However, I received very little support from Florida Institute of Technology in acquiring these materials at the time and none from the F. W. Olin College of Engineering.

Interviews were conducted with the following individuals, and follow-up or subsequent interviews were completed with other individuals that were identified during the preliminary interviews. Those to be interviews included the President Emeritus of Florida Institute of Technology, Dr. Lynn Weaver, the current President and Provost of Florida Institute of Technology, Dr. Anthony Catanese, and former chairman of the university board of trustees John Hartley, who was intimately involved with the grant process more than 15 years ago. While the F. W. Olin Foundation board members were contacted, none agreed to be interviewed. Since the number of individuals employed by the F. W. Olin Foundation was relatively small, three

surviving board members provided an equally small pool of sources to be potentially interviewed. Interview questions are found in Appendix II of this proposal.

I provided an opportunity for those interviewed to review the transcripts for accuracy, but there was no provision for opting out of such a review on their informed consent form. However, it was made clear before the interview started that all participants could terminate the interview at any point, or refuse to answer any specific question. This provision was discussed with my dissertation committee before any research was conducted. All research data from human subjects was kept in a locked filing cabinet until the completion of research.

Data Collection

According to McCulloch (2004) one form of "methodological pluralism" modern scholars can adopt to improve their understanding of their research is to combine documentary and non-documentary sources. The research conducted looked not only at archival research available from Florida Institute of Technology and the F. W. Olin Foundation, but it also combined those documentary sources with interviews of the primary actors involved in the case study.

There were two means of data collection for this research. The first was through a series of semi-structured interviews using the research questions indicated in the appendix. Follow up questions were dictated by the information acquired during the course of the interview. This semi-structured approach allowed for a great deal of flexibility in dealing with individual interviews while also providing the researcher with a solid structure to build the interview around.

This flexibility of format was necessitated by the principles of emergent design. All potential subjects to be interviewed were contacted to arrange for a date and time to meet, and were conducted in a face-to-face method. The initial three interviews were expected to be with the former president of Florida Institute of Technology, Dr. Lynn Weaver; the current Provost, Dr. T. Dwayne McKay; as well Mr. Lawrence Milas, the last president of the F. W. Olin Foundation and the individual who personally oversaw at least a portion of the foundation's grant to Florida Institute of Technology. However, four interviews were conducted with Dr. Lynn Weaver, Dr. Anthony Catanese, Mr. John Hartley and Mr. John Milbourne. An informal discussion with Dr. McKay revealed that he had no additional information to add to the discussion. Lawrence Milas, after being contacted by email, regular U.S. mail and by telephone, refused all interview requests, including a paper interview he could answer as he wished. The length of the original interviews, and any potential follow-up interviews, was determined by the length and quality of answers supplied. These interviews lasted between 60-90 minutes. No follow-up interviews were conducted, though clarifications to some answers were made through email exchanges or by phone conversations.

Additional potential subjects were thought likely to emerge during the initial interviews but several names offered passed away or refused interviews. I recorded all conducted interviews with a digital tape recorder, explained the recording and transcribing procedures, and assured the interviewee that they may end the interview at any time they wish. All interviews were transcribed verbatim, including all pauses, filler words and other verbal "errors."

Documentary evidence provided the next major point of data collection. This documentary evidence included both primary and secondary sources. Primary sources included

original grant applications for the 2002 secondary request for money by the university, letters and any electronic correspondence between the principals involved. Since much of the initial negotiation took place in the mid-1990s, when electronic correspondence was still in its infancy, many of the records were unavailable or not kept. Some records were only in their original paper format, but university administrative officials proved unhelpful in accessing these items kept in a storage facility. The information for the F. W. Olin Foundation found in the archives at the F. W. Olin Engineering College library contacted mostly press releases and other promotional material connected to the opening of the university itself. The actual correspondence and records of the foundation are believed to remain in the hands of Lawrence Milas, but I have no firm proof of this other than some comments made in secondary sources.

Secondary materials included newspaper reports, reports found in the *Chronicle of Philanthropy* and similar journalistic sources, institutional reports meant for non-institutional audiences such as press releases, as well as local, state and federal government reports and other materials produced by outsiders looking at the grant and its outcome. This material was collated from a variety of sources including university libraries, public databases and archives, and from various Internet sources.

Table 2: Mapping Research Questions

Research Question	Interview Question
Question 1: In what manner, and to what extent, were the institutional autonomy and operations of Florida Institute of Technology affected by the awarding of a $50 million dollar grant from the F. W. Olin Foundation in 1997?	2, 3, 4, 6, 7, 8, 10, 12, 13
Question 2: In what manner and to what extent did the conditionalities of the grant from the F. W. Olin Foundation (especially the request for matching dollars) impact the relationship between the foundation and the university?	1, 2, 3, 4, 5, 6, 7, 8, 10, 12, 13, 14
Question 3: What were the long-term administrative and organizational effects for Florida Institute of Technology in accepting the $50 million dollar grant from the F. W. Olin Foundation?	2, 4, 7, 8. 9. 10, 11, 12

Table 3: Mapping Theoretical Framework

Theoretical Framework	Interview Question
Framework 1: How did the F. W. Olin Foundation make Florida Institute of Technology more dependent on external funding with the award of a $50 million grant in 1997?	2, 4, 5, 6, 7, 8, 10, 11, 12, 13
Framework 2: How did the award of two grants by the F. W. Olin Foundation, which was seeking to achieve its stated (or unstated) goals, increase the dependence and control the autonomy of Florida Institute of Technology?	1, 2, 4, 5, 6, 7, 8, 10, 11, 12, 13
Framework 3: In what ways did Florida Institute of Technology seek to escape the constraints and/or escape any sense of dependence after receiving a grant from the F. W. Olin Foundation?	2, 4, 6, 7, 8. 9. 12

Data Analysis-Interviews and Documents

After all interviews are completed, data analysis must take place. This included establishing a coding schema that looked at each interview individually as well as cross-referencing and analyzing the answers supplied. A similar process was carried out for reviews of primary and secondary source documentation. Miles and Huberman (1994) stated that, "from the start of data collection, the qualitative analyst (must) decide what things mean" (p. 11). This includes taking notice of any patterns that emerge from the data as well as any irregularities. During data analysis, data has to be tested for "plausibility, sturdiness and confirmability," or in other words, whether that is valid as a data set (p. 11). Coding the data helps to simplify the massive amounts of material examined and allows the researcher to see more clearly any emergent themes enabling the researcher to generate valid meaning from the data.

One of the important pieces of data analysis is the coding of interviews and documentation. Coding creates categories of identification for the researcher, aiding in recognition of patterns and easing interpretation of the volumes of collected data. Miles and Huberman (1994), Taylor-Powell and Renner (2003), and Creswell (2007) agree that coding is necessary if the researcher is to develop coherence from the qualitative data collected. Taylor-Powell and Renner (2003) stated that rather than using preconceived or preset categories for coding data collected, emergent categories are equally valuable (p.3). Emergent categories come from "handling" that data and often include ideas and concepts not originally envisioned at the time the interview or document analysis was undertaken. This portion of emergent design helped shape the analysis of gathered qualitative data from interviews and documentary sources.

Creswell (2007) stated that one of the first processes in coding data is for the researcher to write notes in the margins of their transcripts and collected data. These notes are "short phrases, ideas, or key concepts that occur to the reader during their initial pass through the material," (Creswell, p. 151). These short phrases form the base of the coding schema to interpret that collected data, regardless of the source. Corbin and Strauss (2008) noted that the researcher needs to think "outside the box" and "put aside preconceived notions" of what the data might contain (p. 160). One of the important early steps is also to winnow out the material that is no longer relevant, then apply, according to Creswell, a small number of codes that match text segments in all available data. Miles and Huberman (1994) stated that the researcher should count the number of codes that appear in the data; however, Creswell argued against this quantitative aspect to an otherwise qualitative study. Instead, Creswell reasoned that while the number of codes may expand dramatically, the researcher should always seek to narrow the number of codes down to an even smaller number, ideally no more than a dozen (Creswell, 2007, p. 152).

In keeping with Creswell (2007), this coding can:

1) Represent information that researchers can expect to find before the study,

2) Represent surprising information that researchers did not expect to find, and

3) Represents information that is conceptually interesting or unusual to researchers and (and potential participants and/or audiences).

Coding, as noted earlier, is meant to establish patterns and themes in the data being reviewed. Corbin and Strauss (2008) stated that the coding that emerges may be "in vivo," coding, i.e. coding that uses terms that emerge directly from the material being encoded. Corbin and Strauss

(2008) noted that the coding process is not one that simply takes phrases from the data to use as a label, but that the researcher searches for the right word or phrase to conceptually express the data being analyzed (p. 160).

Case study analysis requires unique steps in the process of data analysis. According to Creswell (2007), this includes analyzing the multiple sources of data to ensure the each step or phase of the case being examined helps to present an accurate picture of how the case evolved. The case-study researcher, consistent with advice offered by Creswell, should follow a step-by-step analysis as listed below:

1. Provide the case's context as the initial step of analysis; this should represent information known by the researcher before any data analysis is begun
2. Provide a narrative description of the case so that the researcher understands where the data to be analyzed fits in the larger narrative story that emerges
3. Begins a within-the-case analysis, looking for common themes; this is the beginning of the coding process for the researcher.
4. Case analysis continues with the researcher identifying similarities and differences within the emerging themes; refinement of the coding process is undertaken as an ongoing process so as to allow the researcher to narrow down and provide support for the case's predominant themes (5-6)
5. Further refinement and analysis of data either illuminates new thematic approaches or supports already existing themes
6. The researcher begins to make the first assertions and generalizations that are supported by thematic data that emerged.

7. A narrative using the data and themes that have emerged from this process is supported with direct quotes from interviews or with informative selections drawn from documentary sources.

From this data, Creswell (2007) and Corbin and Straus (2008) stated that a detailed description of the case would emerge, including a chronology of the events, the role of the individuals during the chronology, and the activities that influenced the chronology of events. The researcher then focuses on a few key issues of data looking for themes that helps to explain the apparent complexity of the case. In the final interpretive phase, the researcher places the case into a larger context, and discussing the lessons learned from the unusual situation of the case (Creswell, 2007, p. 75).

Fidelity and Trustworthiness

Research transparency is important, especially in qualitative research. As the researcher of this study, I used all means possible and at my disposal to be as explicit, clear and open about all assumptions that were made in compiling this study. All research methods and procedures that are used in compiling this study are clearly detailed and the methodology and results should be easily understood as to why they were used in this case and why they should be used again given a similar set of circumstances. Since the researcher is an inherent part of qualitative research, they need to be critical of their assumptions, presuppositions and any decisions made to include or exclude research uncovered during assembly and review of the study's findings.

Particular care was needed with interviews and other personal narratives recorded or accessed during this study. Audio recordings were made of all interviews, and then transcribed to

produce a transcript. The transcript became a part of the narrative structure used by the researcher to assemble as clear a picture of the situation as possible. Other personal narratives, such as memoirs, letters, emails and personal and official correspondence needed to be treated with the same care as any audio transcripts. The cross-referencing and coding of these materials helped to establish both transparency and provided for the triangulation of data.

Triangulation of data, or gathering data from as many different sources as possible, helped to confirm whether that data is being "truthful" or simply appearing as a distraction or noise. For example, is a "fact" stated during an interview corroborated by other sources of data confirming that it is a fact? Or is this alleged fact unsupported by other data and thus a supposition, guess or personal opinion? Triangulation does not necessarily invalidate the conclusions if they are placed in the proper context; however, the researcher must be clear during the coding of data to ensure triangulation takes place in order to establish the internal validity of the research being conducted. I provided an opportunity for those interviewed to review the transcripts for accuracy of their statements. This "member check" will provide another point of data triangulation and ensure accuracy of the transcription and the statements of those interviewed.

As the primary researcher in this case study, self-disclosure about my position in relation to the study is a necessity. I am an employee of Florida Institute of Technology, working as a senior instructor in the Department of Humanities and Communication, and this research study involves a part of the institutional history. Creswell (2007) pointed out that one of the major issues that any researcher will have to face is the concern of being a vested interest in the research being conducted. Since this research focuses on an incident in the relatively recent past

of Florida Institute of Technology, and several of the latter actors are still employed by the university, including the current President and the Provost, I need to be aware of potential political consequences of the research being conducted.

I first became aware of the connection between the F. W. Olin Foundation and Florida Institute of Technology in 1999 when I was present as a new employee at Florida Institute of Technology. Construction by that point was nearing an end, and in the summer of 2000, the new buildings funded by the Olin Foundation grant money were opened. This construction reshaped the southern half of the campus and visually transformed the university landscape. I knew from university newspaper articles and the local press that this was a major moment in the history of Florida Institute of Technology. However, the idea of researching this moment in university history came about in the fall of 2009 when I returned back to graduate school at the University of Central Florida. I knew I had to find a thesis topic and after a conversation with Drs. Robert Taylor and Gordon Patterson, the F. W. Olin Foundation as a possible source of fruitful research was introduced.

For the next two years, I began some preliminary investigation into the F. W. Olin Foundation grant and the connection between the foundation and Florida Institute of Technology. It was during this stage that the apparent discrepancy between the size of the grant, nearly $50 million dollars, and the lack of information on the remnants of the F. W. Olin Foundation website became apparent. There was no mention of Florida Institute of Technology among the list of grant recipients and this stood out not only because of the relative size of the money given, but also because it was a fairly recent event and one of the last major external funding actions undertaken by the foundation before it closed its doors. The question stood out:

how could an institution receive nearly 1/6th the total amount of funding every issued by the F. W. Olin Foundation not be mentioned prominently on their website? Was it a simple oversight or something more?

Discussions with Drs. Robert Taylor and Gordon Patterson, who had done a formal series of interviews for Florida Institute of Technology's 50th anniversary in 2008 with former administrative officials, seemed to indicate that there was more to the story than a simple oversight on the Olin Foundation website. While the question of what exactly occurred between the F. W. Olin Foundation and Florida Institute of Technology was never directly raised during their interviews, both professors (and also my colleagues) assured me that there was more than enough material to pursue this topic further. Dr. Patterson also agreed to introduce me to Dr. Lynn Weaver, the former president of the university and the individual most responsible for securing the F. W. Olin Foundation grant. Preliminary conversations with Dr. Weaver assured me that he would be willing to talk to me about the subject, once the necessary approvals from IRB and my committee had been secured. At this point, the topic became woven into the larger issue of foundations and higher education and it thus became the basis for my doctoral dissertation.

While my research did not uncover material of a politically sensitive nature, there is always the chance that material revealed will not portray the primary actors in the best possible light. It is interesting to note that Florida Institute of Technology is not currently listed as a grant recipient on the remaining Olin Foundation website despite receiving one of the largest grants ever issued by the foundation (http://www.olin.edu/about_olin/olin_foundation.aspx). This omission raised questions about the nature of the relationship between the F. W. Olin Foundation

and Florida Institute of Technology, but it was a question I never was able to answer. This question remains one of the core questions around which any future research will be centered.

Any issues of concern were discussed with my dissertation advisor and committee members before a decision was made to include or exclude any potentially controversial or sensitive findings. Creswell (2007) reminded the researcher that they need to keep in mind any and all potential conflicts of interest, and therefore not to eliminate or unduly shape the research uncovered so as to weaken the case study and the overall conclusions of the dissertation (p. 139). Creswell's advice seemed particularly pertinent in the research to be conducted for this case study.

Institutional Review Board

As this research involves human subjects being interviewed and because there is a small chance of non-physical harm to the participants agreeing to be interviewed, this research proposal was submitted to the institutional review board at the University of Central Florida to ensure that it met with current acceptable practices and procedures. Each potential person interviewed was presented with an informed consent form used to explain the overall purpose of the research being conducted. The informed consent also listed the design procedures, benefits and possible risks of agreeing to be interviewed. The consent form also explained to the subject that prior to being interviewed they could withdraw from the interview at any time. No confidentiality was assumed and the consent form did indicate a spot where the subject to be interviewed waived their right to confidentiality. A waiver of confidentiality was necessary because the potential pool of those to be interviewed was so small as to make it likely to be

immediately obvious where any potentially damaging data or information came from. The consent form, as required by the institutional review board, also included contact information for the researcher, the dissertation chair and that of the University of Central Florida Institutional Review Board.

The digital recordings of the interviews and subsequent transcriptions were available only to the researcher, the dissertation committee members, and any hired transcriptionist. I personally transcribed all the interviews as well as providing an opportunity for those interviewed to review the transcripts for accuracy. All research data from human subjects was kept in a locked filing cabinet until the completion of research.

Originality Score

The University of Central Florida's College of Graduate Studies requires each completed dissertation to be submitted to Turnitin.com, an electronic originality scoring service. An acceptable score as defined by the College of Education, the program chair in Higher Education and Policy Studies, and by the dissertation chair is a final score between 0%-10%. Scores above this 10% threshold may be significantly lowered through the removal of quoted material and the removal of the bibliography or references from the originality-scoring matrix. If neither of these procedures suffice to lower the originality score below the 10% threshold, it was necessary to conduct a review of each potential source of conflict and provide an explanation for each discrepancy until such a time as the score is lowered to 10%, or it is determined to be an original work and approved by the dissertation advisor.

Thus the following steps needed to be followed and reported:

1) What was the score initially of the completed dissertation?
2) What was the score after removing quoted material and references?
3) What was the score after removing previous submissions by the author?
4) What was the score after removing the small (<1%) matches?
5) Finally, what was the final originality score?

When all of the steps listed above were completed, the final result was 1%. The dissertation chair, Dr. Owens, certified that this research was approved as an original work once the above data was submitted for review.

Summary

The dissertation research design and rationale, and their relationship to the three research questions underlying the research proposal, are presented in this chapter. Along with the design and rationale, the issues of site location, data collection procedures, and data analysis were also discussed. Protocols for conducting interviews and the ethical considerations of conducting quantitative research were discussed. Questions concerning fidelity and trustworthiness of data were raised and discussed, and finally, a discussion of the University of Central Florida's requirement concerning the originality of research was explored.

CHAPTER FOUR: EXAMINING THE PARTICIPANTS' STORIES

Introduction

The first portion of this chapter provides the background to a case study involving funding in higher education and how funding institutions help to define the university. This particular case study illustrates the opportunities that are available to colleges and universities but also the problems that arise in attempting to secure external funding. Florida Institute of Technology is a unique case because it is a university that very much took shape and form from the money it received through two large grants from the F. W. Olin Foundation. It is a story of optimism, innovation and perseverance for the university, but one that also exposes the problems of relying on external support in order to grow and meet the challenges of the 21st century.

Florida Institute of Technology had been promised $100 million and had made plans for growth and transformation based on that sum. Instead, the university struggled to receive nearly half that amount from a foundation that already had other ideas for the money they had promised. The F. W. Olin Foundation was at the time moving in a different direction by establishing its own college, thus altering its vision and the allocation of the vast resources at its' disposal. Florida Institute of Technology nevertheless receives approximately $50 million dollars, and in securing those funds, the university is altered by its involvement for the F. W. Olin Foundation. The institutional culture at Florida Institute of Technology becomes—and continues to be—one that follows a business model, as demanded by its external corporate supporters. Thus Florida Institute of Technology becomes an additional case study into how colleges and universities are indeed "big businesses" in the 21st century.

The beginning part of this chapter therefore will provide an overview of the events of the case-study as revealed by the data collected through the course of interviews with four individuals: Dr. Lynn Weaver, President Emeritus of Florida Institute of Technology; Mr. John "Jack" Hartley, former CEO and Chairman of the Board of the Harris Corporation and Chairman of the Board of Trustees at Florida Institute of Technology; Dr. Anthony J. Catanese, the current President of Florida Institute of Technology; and Mr. John Milbourne, Director of Facilities Management at Florida Institute of Technology. It should be noted at this point that no surviving member of the F. W. Olin Foundation board of directors/trustees has responded to repeated requests for interviews.

Following this section there will be a discussion of the findings in relation to the three research questions—how was the institutional autonomy of Florida Institute of Technology effected by access to funds from the F. W. Olin Foundation; how did the conditionalities of the grant impact the relationship between the university and the F. W. Olin Foundation, and what were the long term administrative and organizational effects for Florida Institute of Technology? Finally, a summary of the chapter will be provided.

Overview of Events

In 1987, Dr. Lynn Weaver became the third president of Florida Institute of Technology. The university was struggling financially, relying almost entirely on student tuition and with a negligible endowment. However, Lynn Weaver had a vision for Florida Institute of Technology: to become one of the premier scientific and engineering universities in the nation, thus competing regionally with schools like the Georgia Institute of Technology. Yet that required a

few things the university did not possess: modern laboratory facilities, research funding, and a process for acquiring (and paying) for high quality faculty in engineering and the sciences. Dr. Weaver also envisioned a new center to what becomes a sprawling campus paid for in a piecemeal process of construction or new acquisitions of existing buildings. Meeting all of these visions required money the university did not have. Its internal fund raising apparatus was negligible and money raised from external sources was relatively miniscule for a university with aspirations of becoming known throughout the world. It was a dire situation, but Dr. Weaver believed that the university could be transformed to meet his ambitious vision, if only an external patron could be found.

According to Wilson (2008) a capital campaign between 1988-1993 struggled to raise $25 million from a multitude of sources, including the Harris Corporation. But President Weaver wanted to transform the university from primarily a teaching institution to one focused on research and that required not only new buildings and laboratories but the cash to help support faculty and staff. In 1990, according to Wilson, Dr. Weaver approached the F. W. Olin Foundation for the sum of $5 million for the construction of a new engineering building but was rejected (Wilson, 2008, p. 39). Weaver understood that despite this rejection, the F. W. Olin Foundation might still become a source of external funding that the university desperately needed.

This source of external funding would have to come from a foundation with ties to colleges and universities, one that had a track record of providing science and engineering facilities. The most obvious candidate was the F. W. Olin Foundation, which is why Dr. Weaver had approached them in 1990, because they had a track record of providing colleges and

universities with funding for building construction meant to be turnkey operations. These turnkey operations were buildings that were usable from the moment the doors were unlocked for the first time: everything from scientific machinery to computers and desk furniture. They were meant to be operation from the moment the first faculty and students stepped into the building. The amounts of money the F. W. Olin Foundation provided to colleges for building construction were significant, and by the early 1900s, there was a waiting list of worthy candidates for the foundation's funding.

Dr. Weaver's rejected proposal to the F. W. Olin Foundation in 1990 would be the start of the long relationship he managed to develop with the foundation (TR 1, p. 1). Dr. Weaver knew that the current engineering and science facilities were aging and as the 21st century approached, they would have to be upgraded to attract the best faculty and students. He hoped that the location of this new building would form a nucleus for a revitalization of the campus infrastructure. There was plenty of space at the south end of the campus, and a field currently being used for athletics would be the perfect spot to construct this new building.

The university, however, received $100,000 as a "runner-up" consolation prize, in part because the F. W. Olin Foundation, according to Dr. Weaver was "a little concerned about the future of the university, about the finances and what have you, at that time…they thought [Florida Tech] had potential" (TR 1, p. 1). According to Jack Hartley, the university was in some financial distress in the early 1990s, so that the F. W. Olin Foundation's concerns were not unwarranted. Hartley went on to say,

> We had lots of issues and no real source of revenue other than students. We had a real conglomerate of interests going on. We had a flight operations school going on in [northwestern] Massachusetts, scientific endeavors in South Florida, a branch campus in Central Florida, and [the] Vero Beach area provided new buildings for another branch

> campus. We had debts we weren't sure we weren't going to get sued for. There were just a lot of issues (TR 3, p. 19).

The university had acquired, largely through alumni gifts, a diverse portfolio of property and educational endeavors, but many of them were losing money and there was no real central focus at the time. The acquisition of a series of buildings in Jensen Beach, Florida, was soon to be a new source of financial problems but also promised to be a place to establish a satellite campus focused on oceanography and environmental studies. The university was also a landlord, having acquired private homes on the streets around the campus, and renting these homes to faculty, but also to community members. Jack Hartley was right to point out that the university had "a lot of financial issues" that needed to be sorted out.

In response to additional feedback provided to the rejected grant request, Dr. Weaver continued to pursue funding from the F. W. Olin Foundation. He believed, from his conversations with the four members of the board of trustees of the F. W. Olin Foundation, that they thought Florida Institute of Technology has some potential. What he needed to do was convince them that the financial problems could be solved with a grant from the foundation, and only then would the university become what Dr. Weaver had envisioned. Weaver stated, "They were interested in the university, but they had questions about the viability." (TR 1, p. 1)

This interest is what convinced Dr. Weaver that he could present another proposal for a grant from the F. W. Olin Foundation, but first he needed to show the foundation's board that Florida Institute of Technology had a way to bring their financial house to order. Dr. Weaver, in an effort to redress these financial concerns, began a fund raising capital campaign (TR 1, p. 1). This new money, according to Dr. Weaver, would be used not only to address the F. W. Olin's concerns about Florida Institute of Technology's funding issues, but also "to build a research

program" and hire "high quality faculty in the university" (p. 1). However, this was a sign that the university was still trying to do two things at once: build the means to perform modern academic research, but also create a foundation to ensure the university's long-term financial health. As always, there wasn't enough money to do both, but Dr. Weaver hoped it would be enough to convince the board of the F. W. Olin Foundation to reconsider their request for a substantial grant.

Dr. Weaver knew that he had to build some sort of personal connection with the board members of the foundation in order to convince them that the university was seriously dealing with the issues that had been presented to them by the F. W. Olin Foundation's grant request rejection letter. The foundation's "interest" had to be nurtured, even if that meant spending money the university could have used elsewhere. Dr. Weaver continued to pursue these funding opportunities with the F. W. Olin Foundation, including annual meetings with Lawrence Milas, the chairman of the F. W. Olin Foundation (TR 1, p. 1-2). Milas was a lawyer who was located in New York, but the foundation also had an office in Minneapolis where Mr. William Horn, vice chairman of the F. W. Olin Foundation was located (TR 1, p. 2). Dr. Weaver stated that he would "visit both offices every year" and "keep them informed of the progress we were making at the university and so forth" (p. 2).

Eventually, a second proposal was put forth for funding for a biological sciences building, but the foundation took no action on the request (TR 1, p. 2). Undaunted and still seeing some sign that the foundation had interest in the university, Dr. Weaver continued his annual visits because he "believed there was potential there, (in) getting a grant" (p. 2). Each year he tried to nurture the personal relationship he believed was developing between himself

and Lawrence Milas. Dr. Weaver believed that Milas was the key figure as the foundation board's chairman who would have to be convinced to support Florida Institute of Technology.

In 1996, Dr. Weaver received a phone call from Lawrence Milas asking if he could be in New York City anytime soon. Dr. Weaver's response was "No, but I can be" (TR 1, p. 2). Finally, those years of annual meetings seemed to be paying off. Here was where Dr. Weaver's belief that the F. W. Olin Foundation would provide the best fit to allow the university to meet the vision he had developed and long nurtured. In preparing to go to New York City to meet with Milas, it would not be hard to imagine that Dr. Weaver finally saw his perseverance and optimism about to pay off. It would be that phone call that would mark the start of a period in which the university would undergo a rapid transformation, but one not necessarily foreseen by Dr. Weaver or Florida Institute of Technology.

While that trip to New York City never took place, Lawrence Milas informed Dr. Weaver that he (Milas) and his wife were coming down to Florida to visit their home on Longboat Key. Milas asked Dr. Weaver if there was a chance to get together and Dr. Weaver offered an invitation for Milas and his wife to come to dinner at Dr. Weaver's home (TR 1, p. 2). This informal "meeting" was perhaps the best sign that his hard work had paid off, and that by developing a personal relationship with Milas, that he had perhaps opened the door to securing the funding that Dr. Weaver had been looking for these past six years.

Milas also informed Dr. Weaver that William Horn would be joining them. As later events would show, Horn would be one of the universities biggest supporters at the foundation. This informal meeting, not at the board's offices in New York City, meant that something big was going to be discussed, but that it wouldn't necessarily be a formal offer of funding. It was,

however, more than the foot in the door that Dr. Weaver had been working on for several years. Milas informed Dr. Weaver that he could invite one person to the meeting and tell one person on the Board of trustees about the visit (TR 1, p. 2). This was important because the matter under discussion during this informal gathering would effect the entire university, but it also indicated, perhaps, that Lawrence Milas did not want this meeting to be leaked to the public. This informal gathering of four men was indicative of how the relationship between the F. W. Olin Foundation and Florida Institute of Technology would develop. Here was a private meeting, obviously off the record, in which important issues were to be discussed, but in which the outcomes of these discussions was never completely clear to either party in hindsight. It seemed to be a meeting straight out of central casting: ostensibly a social gathering between the two of the foundation and their spouses, and two members of the university community. Moreover, this discussion concerned the very future of the university, and yet here it was going to take place after dinner, along a moon lit night between the Indian and Banana Rivers.

For Dr. Weaver, that choice was obvious as to whom he would inform: Jack Hartley, then the Chief Executive Officer of the Harris Corporation, a major military communications company based in Melbourne, FL. If Dr. Weaver was going to show to the F. W. Olin Foundation members that he was seriously attempting to solve the university's financial issues, then who better to invite than the CEO of a Fortune 500 defense firm that was based locally. It also helped that the Harris Corporation had already invested in the university, which was something that could hopefully be leveraged to get more support from the F. W. Olin Foundation. As Dr. Weaver further explained his choice for dinner guest,

> …I got him [Jack Hartley] to join the board. I thought, well Jack would be the ideal guy. He is a CEO of Harris Corporation and he would be the ideal guy to be present at this meeting. Because when I came down to take this job, I told Jack, I said, that I would only take the job if Harris supports the university (TR 1, p. 2).

Florida Institute of Technology had long maintained relationships with the local defense contractors looked in Brevard County. The original design of the university, to provide advanced degrees to NASA engineers and scientists, meant that close connections to local industry was already ingrained in the institutional roots of the university. For Florida Institute of Technology, this was almost a co-op experience: the university would train the engineers and scientists that local industry required, and that these industries in return would support the university financially and hire its graduates. Dr. Weaver, from the very beginning of his tenure as president, had already understood that essential nature of the university. Dr. Weaver knew that the university's tuition dollars were coming from students who believed that they were being prepared for well paying jobs in the sciences and engineering, and that they would have job opportunities in local industry when they graduated. For corporations like Harris, Raytheon and Boeing and government agencies like NASA, Florida Institute of Technology acted almost like a private college for their employees, both future and present, providing them with an advanced stepping stone into the corporate jobs awaiting them or allowing them to seek additional education opportunities to further their careers. For Dr. Weaver, it made sense to call upon a member of the university's board of trustees who also happened to be the head of one of the largest donors to the university. It didn't hurt that Jack Hartley was also a personal friend.

The Harris Corporation had been a long time financial supporter of the university, put their donations had often been in equipment, computers and other non-cash gifts. Eventually the Harris Corporation would provide the initial $5 million dollar contribution of the $25 million

dollar capital campaign Dr. Weaver would undertake as part of the F. W. Olin Foundation's grant (TR 1, p. 2). The meeting between Milas, Horn, Weaver and Hartley took place in January 1995 (p. 2). According to Dr. Weaver,

> It was a beautiful night actually and I have a house on the river and so, we are sitting out on the patio overlooking the river and the moon was coming up. And you know, we chatted and then Larry says, what would you do if you had a lot of money? And I said, Oh <laughter> how much? <laughter> He said, maybe $100 million. Wow! I said. I said, Larry there is a lot you can do with $100 million (TR 1, p. 2).

Dr. Weaver finished his explanation of the evening's events.

> He [Lawrence Milas] said why don't you put together a proposal to the foundation, alright. So, when dinner was over and they were leaving, I said 'Jack, did you hear what I heard?' He said 'I think so.' (TR 1, p. 3).

Jack Hartley's memories of that night's events largely correspond to Dr. Weaver's as he says,

> However, at some point after that dinner, they came back and said 'We think we would like to have a proposal from you, just so you can tell us what you think it will take to make Florida Tech a world class engineering institution, college. There is some criteria we have. One, we will not give this money to a public institution…We think we want it to be engineering oriented and this is what we are all about…' So I am not sure there were many other restrictions, I mean initially, there was just kinda, write down your thoughts on the proposal (TR 3, p. 4).

This was a new proposal and was put together and submitted to the F. W. Olin Foundation board of trustees in March 1995. This was a far larger sum of money that Dr. Weaver had ever asked for. He had been asking for grants in the $2.5 million to $10 million range, and now the F. W. Olin Foundation was asking for a proposal of ten times that amount. Dr. Weaver was now being asked to draft a proposal based on the sum of money that could truly turn the university into a world class institution, one that could not only potentially rival the Georgia Institute of Technology, but also M.I.T. or Caltech. Here was the pot of gold at the end of the rainbow that would solve all of the university's financial problems, and allow them to grow and

prosper. It was a huge sum of money, and the only apparent condition from the foundation was that it had to be used to transform a private engineering institution into a world-class university. For both Dr. Weaver and Jack Hartley, this was a sum of money that would easily transform the university and put it on the map as one of the most modern engineering universities in the United States. Here, it seemed, all of those years of struggle and rejection were now about to pay off. Eventually, however, the dream had to come down to reality.

When the grant was finally publicly announced in May 1997, the F. W. Olin Foundation gave Florida Institute of Technology a $25 million dollar direct grant along with a $25 million challenge grant. The challenge grant required the university to raise an additional $25 million dollars that would then be matched on a 1:1 basis. This challenge grant was not something the university had foreseen in its original proposal, according to Dr. Weaver. Moreover, the university had never raised those sorts of sums when the grant was announced. Here was one of those unforeseen conditions that would cause the university to have to reexamine its way of raising external funding and have to transform itself in ways that were commonplace in higher education, but that was relatively new to Florida Institute of Technology. For the first time, the university would have to develop a steady source of external funding if it was going to match the challenge grant condition placed by the F. W. Olin Foundation.

This grant to Florida Institute of Technology was the largest sum of money the F. W. Olin Foundation had given to a single university in a single grant since its founding in 1938. However, it was not the $100 million that the university's proposal had requested and they had been led to believe they were going to receive from the conversation more than a year prior. Nor was it a smaller cash only grant, but now one that had a significant restriction attached. What had

been a $100 million grant was now effectively a $25 million grant with the potential for an additional $25 million. What had caused the F. W. Olin Foundation to lower the sum of money ultimately granted to the university? Apparently neither Dr. Weaver nor Jack Hartley were given any warning that the full sum of money they had believed was coming to them as part of the proposal they had submitted now had been drastically reduced. This decision to issue a smaller award to Florida Institute of Technology would not only change the university but would impact the future of the F. W. Olin Foundation and higher education itself.

Unknown to most people outside of the F. W. Olin Foundation, the foundation's board had decided to ultimately dissolve the foundation and follow what was internally called "the big idea" (Greis, p. 10) According to Greis (2009), by the early 1990s, the board of the F. W. Olin Foundation consisted of four directors: Lawrence Milas, the chairman and lawyer; William Horn and William Schmidt, both of who were connected to Federal Cartridge Company that until 1985 provided the bulk of the foundation's funding source; and the newest member, William Norden, the foundation's legal counsel and a partner in the same law firm as Lawrence Milas. Greis (2009) noted that none of these directors had any direct connection to Franklin Olin, with the closest direct link through William Horn, whose father, Charles Horn, had been president of the Federal Cartridge Company and had been personally appointed by Franklin Olin to the first board of directors of the foundation.

Greis (2009) stated that the foundation had always been personally run by the directors with a very small administrative staff, achieving "one of the lowest cost-to-grant structures" in American corporate philanthropy (p. 8). The F. W. Olin Foundation's grants, was limited in number each year by the foundation's decision that the directors themselves provide direct,

individual oversight over each grant as it was administered. The foundation's grants had been substantial ones from the beginning of the organization. The F. W. Olin Foundation grants were considered "turnkey grants" i.e., they were for the entire facility, not just the physical building, but also included all internal furnishings, from desks to computers (p. 8-9). These grants had been limited to 2-3 each year, because without a significant staff, each of the board's directors was personally responsible for oversight of one (and occasionally more than one) of the projects the board had funded in a particular year. For example, the grant given to Florida Institute of Technology was personally overseen by Lawrence Milas, who received the university's various yearly reports, construction progress updates, and requests for additional funding. Whether Milas had staff at his law firm assist him in anyway is unclear from the information available, but it would not be unusual to think that as powerful corporate lawyer and partner in a prestigious law firm, that Milas had his legal staff assist him on foundation matters.

For the F. W. Olin Foundation there were practical reasons for approach their funding requests in this way. The foundation had, by the 1990s, access to more than $400 million dollars in available funds, and the returns on investments of these funds allowed them to issue grants in the tens of millions of dollars, not just the millions. According to Greis (2009), there were two primary advantages in these large grants: first, it kept the administrative oversight of the foundation relatively simple when only two or three grants were offered a year, and second, these large grants could effectively "transform" institutions by "filling longstanding needs, freeing up capital for additional expansion and –most importantly- acting as a catalyst to energize additional capital fundraising" (p. 8). This last requirement would become essential in understanding the impact of the F. W. Olin grant given to Florida Institute of Technology as the

terms of the grant included a substantial fundraising component for the university in order to access the sumps provided as a matching grant by the foundation.

Greis (2009) also noted that there were years in which the foundation made no grants, or issued relatively smaller grants, as it saved money for a larger grant in a subsequent year. For a smaller private university such as Florida Institute of Technology, such a substantial grant would not only validate the university's mission but also could be used to be part of a larger fundraising campaign (p. 8). In the case of Florida Institute of Technology, both of these would be the case.

By the 1990s, Greis (2009) recorded that the F. W. Olin Foundation was at a crossroads in how it planned to continue to function as a grant giving foundation. It was Lawrence Milas who developed the "big idea" and he would present it to the board of the foundation in the early 1990s. Milas, Greis (2009) indicated, had considered a financial collaboration with different universities but had ultimately dismissed the idea. This collaboration would have consisted of the foundation providing the funding to an existing university, thus transforming the university in a way that Milas believed should be the model for an engineering college of the 21st century. By this point, according to Greis (2009) Milas came to believe that although universities promised that they would be transformed by the funds the foundation had provided, in reality, they had continued with business as usual, yet now they had a bright shiny new building provided by foundation funds. In other words, Milas came to see universities not as partners in the future, but as simply institutions resistant to change and who saw the F. W. Olin Foundation as nothing more than a potential resource for infrastructure construction.

Greis (2009) indicated that by the fall of 1993, just a little more than two years before the conversation with Florida Institute of Technology administrators took place, Milas had for the

first time introduced his "big idea" before the foundation's board of directors (p. 11). Milas' proposal for the future of the F. W. Olin Foundation was three-fold and this proposal would have direct implications for Florida Institute of Technology. First, Milas stated that the entire sum remaining in the foundation's coffers could be given to a smaller engineering school to raise it to the top tier of engineering schools in the nation; second, the foundation could start an engineering program at an established university that did not have one; or third, the foundation could start a whole new school from scratch (p. 11). Obviously, for Florida Institute of Technology, the first proposal was what they thought was their future, but one that Milas seemingly had already personally dismissed before he made his suggestions to the F. W. Olin Foundation board. Ultimately the foundation would pursue a mixture of options two and three. However, in 1993, when the "big idea" was first proposed to the board of the foundation, as Greis (2009) noted, the board's reception of the idea was decidedly mixed, though Milas was given permission to explore the last option further (p. 11).

What Dr. Weaver didn't know on that January night in 1995 when he met with Milas and Horn, was that the F. W. Olin Foundation board had decided tentatively to pursue an option of dissolving the foundation. Dr. Weaver remarked, "I don't know when they made the decision that they there were going to dissolve the foundation" (TR 1, p. 3) but he did note that he had a feeling that there was "a kind of dissension on the board" (p. 3). Jack Hartley noted that the proposal was discussed by the foundation for some time and he too sensed that there was some sort of disagreement on the F. W. Olin Foundation board. Hartley remembered that,

> This took place over a protracted period of time. In the meantime, we got to know the players a little bit better. It became clear that there were two schools of thought in this whole thing. There was Larry Milas and (William Norden) in NYC, and he (Norden) was

> Larry's right hand man. And there were the two outsiders (William Horn and William Schmidt) who were with the foundation for a long time (TR 3, p. 4-5).

More than a year would go by between submission of the proposal and the announcement of the reward. What apparently was going on behind the scenes was that the board of the foundation was splitting, between those who favored option one of Milas' "big idea": to fund an existing university with foundation funds, and those who supported either option two or three, or some combination of these latter two options. Hartley's recollections of the events continued, focusing on the period while waiting for a response from the F. W. Olin Foundation to their $100 million dollar proposal. Hartley continued:

> One of them had run an Olin division (William Horn). And you know, he considered himself the senior Olin guy. The other guy (William Schmidt) was a financial type. They were both good guys, I mean, and I think solid. They had their heads screwed on right. And it became clear soon after all this was going on, that there was a little dichotomy on the board. That board, the two Midwesterners liked the idea of transforming an existing institution. Larry Milas liked the idea of founding a new one in New England, tied with Babson College in some way…He was a graduate, a college trustee, and a graduate I think…So his view was that we could use the existing, it won't be part of Babson, but it will be independent, then Babson could help us out and we could pay them (TR 3, p. 5).

Here emerging were "behind the scenes" discussions among the members of the F. W. Olin Foundation board members that Florida Institute of Technology was only aware of in bits and pieces. Both Weaver and Hartley believed that Horn and Schmidt saw the potential of Florida Institute of Technology to become the university the foundation would back with a substantial sum of money, perhaps the entire $100 million in the proposal submitted by the university. Weaver and Hartley agreed that they came to believe that Milas and Norden were in favor of starting a new school, their own engineering college, but one attached to Babson College in Massachusetts. Babson College just happened to be Milas' alma mater and had

received funding from the foundation in the past. Moreover, this proposal, though eventually presented to the public as construction of a brand new college, was actually an amalgam of proposals two and three. Babson College did not have an engineering faculty in the 1990s, as it was primarily a business school, but it could provide some of the infrastructure that an accredited university needed, such as a library and a wider array of courses than just those in engineering and the sciences. At least in 1995, when Horn and Milas came to visit Weaver and Hartley, the board had yet to make a final decision on which of the two main options they were going to follow.

Jack Hartley stated that the F. W. Olin Foundation directors responded to the proposal with a number of questions, requests for expansion of ideas or clarification of other areas. Hartley remembered, "We put together the proposal that talked about hiring faculty, building new buildings, increasing the endowment" (TR 3, p. 6). Hartley, however, had the idea that major stumbling block was Milas. Hartley recalled that "Larry's position was, I am probably reading to much into it, as this was never totally stated…no, he did state it in one way: 'You know, you guys, it is surprising you are alive. Because you have no endowment, you are living off tuition'" (p. 6)

According to Hartley, Milas continued along that line of thought, noting that the university was not going to fit his plans for the future. In a sense, Milas was justifying aloud his decision to sabotage the first option of his "big idea" by denying that Florida Institute of Technology could be the university that would be transformed by the foundation's money. Hartley went on, stating that Milas remarked, "You deserve a lot of credit for surviving, but without an endowment, without some substantial infrastructure and that kind of thing, I, Larry

Milas don't think you can be what we can envision" (TR 3, p. 6). Hartley, now intimately tied to this proposal with Dr. Weaver, defended Florida Institute of Technology against Milas' criticism of the financial state of the university and that the university wouldn't fit Milas' "vision." Hartley argued that he and Dr. Weaver "pointed out the plusses here: that we were independent, that we were one of the few non-state supported institutions in the Southeast, and we had some very good faculty, some very good students, and admittedly we didn't have the resources, but with the resources we could do an awful lot" (p. 6). Hartley noted that this was a drawn out process "this was not just a matter of months, but of years" (p. 6).

During the following months that stretched into a period of nearly two years, the foundation "officially" approached Florida Institute of Technology's administrators with a number of new concerns that seemed to be delaying the approval process of their request. Apparently Milas was having second thoughts about providing any sort of funding to Florida Institute of Technology. Both Weaver and Hartley surmised at this point that Milas was fully committed to proposal three of his "big idea" but that the naysayers on the F. W. Olin Foundation's board, Horn and Schmidt, still needed to be convinced to abandon their support for transforming Florida Institute of Technology through option one of the "big idea."

Hartley noted that "[they] came back and said a lot of times, 'we don't know, it looks kinda dicey to us' and that was Larry's position (each time)" (TR 3, p. 7). However, Hartley made it clear that the he believed the division on the F. W. Olin Foundation's board about the foundation's future was still ongoing, still an issue of discussion, throughout 1996 and into early 1997. Hartley claimed that "the two other guys [Schmidt and Horn] said 'we like Florida Tech' and I think frankly they liked coming to Florida rather than going to New England…I think they

liked me, they liked Lynn, and so forth. They were the counterbalance (to Milas and Norden)" (p. 7). Moreover, as the proposal submission process dragged on, it became apparent that the two Midwesterners, Horn and Schmidt, were sympathetic to Milas' first proposal to give the money to an existing institution rather than starting a new one from scratch. However, neither Hartley nor Dr. Weaver knew that the board was even considering the "big idea" at the time they were waiting for an answer to their original $100 million proposal.

However, Hartley indicated that Schmidt and Horn "were good at giving us, not to say stuff we shouldn't have, (but) steering us with 'why don't you emphasize this; why don't you not emphasize that?'" (TR 3, p. 7). Schmidt and Horn, according to both Weaver and especially Hartley, were providing the university administration with hints that a bigger battle was occurring on the F. W. Olin Foundation's board. Hartley indicated that this assistance came through phone calls, personal discussions and meetings with the members of the F. W. Olin Foundation board members throughout 1996 and into 1997 (p. 7). Schmidt and Horn's private suggestions and assistance, according to Hartley, were mostly used to improve the original proposal in order to answer the objections that were being raised by Milas.

Dr. Weaver mentioned that Schmidt and Horn had discussed in private correspondence and through phone calls, informing him that Florida Institute of Technology was their preference for becoming the transformational university the F. W Olin Foundation had publicly stated that they wished to support. Though they apparently never told either Dr. Weaver or Jack Hartley the full details of what were private foundation discussions, they nevertheless indicated that one of the options the F. W. Olin Foundation was considering involved providing a large sum of foundation money to transform a university into a flagship engineering university for the 21st

century. The other alternative, Schmidt and Horn indicated to Weaver, was to start a new university. Weaver reported "We even said we would change the name (of Florida Tech) if we got the major grant, you know" (TR 1, p. 9). Weaver indicated that the university would have had no problems changing the schools name to the F. W. Olin Engineering University or anything else the foundation might have proposed if that would have secured the larger grant. The promise of a $100 million grant was becoming something that the university administrators could not ignore, and it is understandable that a change in name would be the least of their concerns if it meant keeping the doors of the university open for the long term as well as a significant improvement in the overall infrastructure and reputation of the institution.

Dr. Weaver was certain that at one time Schmidt and Horn were pressing hard for Florida Institute of Technology to receive the foundation's money if the F. W. Olin Foundation was still to be closed down and its funds dispersed. Weaver truly believed that "[I think that] at one time they were thinking that Florida Tech, that this would be the place. And it made a lot of sense: we were an up and coming school, we were moving in the state of Florida. We were the only one, the only private institution of that nature and it made a lot sense" (TR 1, p. 10).

Jack Hartley had a series of personal conversations with Schmidt and Horn in early 1997 to figure out what the final stumbling blocks were with the foundation over the university's proposal. After more than a year of back and forth and with no formal response, Hartley realized that the F. W. Olin Foundation officials were no longer fully interested in Florida Institute of Technology. Now after the promise of a significant amount of money, it seemed that the F. W. Olin Foundation was going to withdraw its' support entirely. Now instead of $100 million, it appeared that the university might receive nothing from the F. W. Olin Foundation. It seemed

that Milas and Norden had convinced Schmidt and Horn to go the route of creating their own university attached to Babson College. According to Hartley, the situation was growing increasingly bleak, and Florida Institute of Technology had thrown all of its eggs into this one basket, one that now apparently was not going to be paying off in any way.

Hartley remembered:

> When it got down close to the end and they had made no decision, our feedback was that they [the F. W. Olin Foundation directors] were leaning heavily towards this separate school and not to fund us. We were trying to work hard on the people who liked us and get support. We tried to find out why, what's the problem…and it became clear that the problem was Larry Milas. That Larry, for whatever reason, did not have confidence that the management team (at Florida Institute of Technology), the existing management team could pull it off. And [that] we were starting from almost the same spot he wanted to begin (with the new college and Babson)…that wasn't true (TR 3, p. 8).

Hartley quickly realized that if something was going to be salvaged from what was apparently becoming a fiasco, he would have to personally speak with the F. W. Olin Foundation board. Milas had apparently, according to Hartley, swayed the sympathetic Schmidt and Horn by pointing out a weakness at Florida Institute of Technology that did not exist.

Hartley indicated to the F. W. Olin Foundation board members that Florida Institute of Technology was not without its strengths and that working with an existing school had significant advantages over starting a new school from scratch. Hartley pointed out to the foundation's board members that "We had a school, we had buildings, we had students. And we had paid our way for quite a while" (TR 3, p. 8). That was important, for despite the desperate situation financially, the school had started the process of getting rid of underperforming assets in had acquired since opening in 1958. Students were still paying tuition, classrooms were still largely filled, and the lights were staying on. Faculty was paid, research was being conducted,

and grants for new research were still being won. Several of the faculty had earned awards and international recognition for their research. The university even had a national reputation for its research in the fields of space and the marine sciences. More importantly, the university had accreditation with one of the six regional accrediting bodies, and had recently passed its ten-year renewal in 1995. Hartley shrewdly pointed out that those were things that any new college, especially the proposed F. W. Olin College of Engineering, would not have from the start. Hartley and Weaver both made it quite clear that accreditation did matter in the larger scheme of things. Hartley did admit to the foundation, however, was that the one advantage the new college would have over Florida Institute of Technology was a large endowment that had been provided to them by the foundation.

Hartley was clear and upfront with the F. W. Olin Foundation that there were weaknesses with the school. Hartley noted that these were largely financial in nature and he continued that "[It] was true we had no endowment, that we were living year to year" (TR 3, p. 8). Hartley understood that Schmidt and Horn were fighting for Florida Institute of Technology and that they were likely thinking: "you know, Florida Tech had worked very hard…we really ought to consider their candidacy" (p. 8). What Hartley emphasized to his supporters on the F. W. Olin Foundation board was that the very issue that Milas was most concerned about—financial instability—was the very thing a substantial grant from the foundation could provide the university. To Hartley and to Weaver, it was apparently folly to choose to create a university from scratch when your investment would go so much further in an existing university. At this point, Hartley speculated on what happened next:

> What I think happened, and nobody knows for sure, (I believe) the minutes have been destroyed…they had a board meeting and they couldn't agree. Larry and his understudy [William Norden] wanted to go their own way…[to establish] their college. Thank Florida Tech and say 'atta boy' and not really do anything significant. The other guys [Schmidt and Horn] wanted to do something significant for Florida Tech and were willing to see some exploration of an independent college (TR 3, p. 8).

Weaver supported Hartley's conclusion that Schmidt and Horn were behind Florida Institute of Technology's proposal: "Bill Horn and Bill Schmidt really were, I think, pushing for Florida Tech" (TR 1, p. 20). Dr. Weaver thought that in particular Bill Horn, the former president of Federal Cartridge Company and the last of the "old time" F. W. Olin Foundation directors, was truly the driving force behind Florida Tech bid. Weaver believed that "Bill Horn particularly was really pushing for Florida Tech. To support us all he could and he would…inform me what the board was doing and stuff, and he probably told me things he shouldn't have told me" (p. 20). Dr. Weaver was quite sure "that had it not been for Bill Horn and Schmidt, we may not have gotten that grant. I am not 100% certain of that, but I think they were a force behind it happening" (p. 24).

However, it was apparent to Hartley by early 1997 that Milas had been pressured into contacting him about the still undecided proposal. Hartley remembered that he was contacted by Milas and his conclusion was that "all we do know is that Larry Milas [then] said 'Look we have serious reservations about Florida Tech.' I have to tell you that this was a kinda off the record discussion with me personally" (TR 3, p. 8). However, because Hartley had been informed by Schmidt and Horn that Milas was the reason the proposal was in limbo, Hartley knew he had to try and sway Milas if the university was going to salvage anything from their original proposal for $100 million.

Hartley noted pointedly to Milas that he was still CEO of the Harris Corporation at that time. As the head of a Fortune 500 company, Hartley indicated that he would not tie himself to a lost cause. Hartley believed that Florida Institute of Technology had a future and that Milas personally was the one who was about to turn a promising future into a potentially dark one. Hartley noted that Milas was again using the alleged problems with financial and managerial oversight at the university as the lever to reject Florida Tech's proposal. Hartley recalled: "he [Milas] said we have serious problems with the management structure at Florida Tech, with the board, lack of endowment, blah, blah, blah. And so we just want you to know that" (TR 3, p. 8). Hartley responded defiantly by stating, "I said okay, Larry, I understand where you are coming from and as a business man, I can understand your concern. But I want you to know that I think that with the right amount of funding, this university could be transformed" (p. 9). It was obvious to Hartley that the F. W. Olin Foundation and their promise of $100 million was the source of that "right amount of funding." He also pointed out that the sum of money promised would not only transform Florida Institute of Technology, but would achieve exactly what the F. W. Olin Foundation's board had been hoping to do: create a modern 21st century university focused on engineering and the sciences.

Hartley also knew that the Harris Corporation's close ties to Florida Institute of Technology had paid dividends over the years to both institutions. The Harris Corporation had provided a level of financial support to the university, and the university had turned out qualified engineers for the company. Moreover, the university could use the same hiring prospects with the Harris Corporation and other high tech employers in Brevard County to attract new students with the promise that as graduates, they would readily find work in their chosen field. Hartley

noted that there were tremendous advantages to the company by having a nationally ranked, doctoral degree granting university in their vicinity. Losing the university would therefore have a negative impact not only on Harris Corporation and its competitors in the high tech field, but also on the larger community. Convincing Milas to allow the F. W. Olin Foundation to honor at least some portion of the proposal it solicited from Florida Institute of Technology was therefore of paramount importance to Hartley.

According the Hartley, Milas went back to the board of directors of the F. W. Olin Foundation to discuss that conversation the two of them had over the future of the grant proposal. Something had changed during that conversation, but it would become apparent only later on. Hartley held no formal position in the university administration, even though he had been consulted on the grant and been brought into discussions with the F. W. Olin Foundation's board members by Lynn Weaver, the university's president. Hartley did sit on the university's board of trustees, but his discussions at this point in the negotiations with the F. W. Olin Foundation were apparently not officially sanctioned by either the board of trustees or the university administration.

Milas came back to talk to Hartley directly. Hartley recalled that "(Milas) came back to me independently, just the two of us. He said, look, would you be willing…at the time I was just one of the trustees, he said if we were to make any sort of substantial contribution, would you be willing (to be, willing) to assume the chair of the board of trustees…be responsible for this grant, for the execution phase?" (TR 3, p. 9). Hartley responded, "I said I will have to think about it. I have a job and all that sort of stuff. But I could hardly say no. I said, first off, that we have a chairman (of the university board of trustees)" (p. 9). Milas, according to Hartley, responded,

"Um, this is a little awkward. And he (the then chair of the university's board of trustees) is a good guy, a very good guy…but (we) think for this kind of money, you are talking about wanting us to give to you, we need to know that there is somebody with, you know, business experience, that is a 'major' corporation, Fortune 500 type and nobody on your board has that" (p. 9). Hartley admitted that this was a concern he had truly considered at the time as being that important.

However, here was the heart of Milas' concern about giving any significant sum of money to Florida Institute of Technology: that the university would somehow squander the money they would receive, or that the money would not be used in a way that the F. W. Olin Foundation thought was acceptable. Milas, according to Hartley, believed that if an individual used to dealing with such large sums of money oversaw the university's expenditures under the terms of the grant, that he, Milas, might be convinced the money would not be wasted. This was, however, problematic, in that the conversation between Milas and Hartley was off the official record, yet it would impact the governance of the university in the long run. Yet for Hartley, there was no other route he could see that would get approval from Milas, and thus from the rest of the F. W. Olin Foundation's board.

Hartley noted that he responded affirmatively to the request, though he did indicate that the matter needed to be discussed further with Lynn Weaver and with the current board of trustees. Hartley acknowledged the request, stating, "If it is okay with the board, of course the board has a say, I will agree to take on the chairmanship of the board" (TR 3, p. 9). Hartley then stated that Milas seemed delighted with that response. Hartley concluded that "(I) could see a glimmer of hope here that we might get this deal done. Larry then said there were some other

things, caveats, to all of this" (p. 9). Hartley was sure that both the university's board of trustees and his friend, Lynn Weaver, would go along with the change once it was clear that the proposal would be approved in some form or another. The future implications of this change on the board of trustees, however, had yet to play out. This was, however, the first step on a path that would transform the university by putting into place a more corporate appearing bureaucracy and a more corporate friendly administrative hierarchy.

With Milas assured that the foundation's grant would be overseen by a stable (and corporate) pair of hands, and Hartley was nominated to become the chair of Florida Institute of Technology's board of trustees, the F. W. Olin Foundation agreed to provide a $50 million grant in 1997. However, there was a small catch, but one that should have been obvious given the conditions that the F. W. Olin Foundation had attached to some previous large grants. The foundation would provide $25 million dollars in direct cash grant, but the other $25 million promised would only be released as matching funds raised by the university were met. Thus Florida Institute of Technology found itself agreeing to raise a matching $25 million in order to receive the entirety of the F. W. Olin Foundation grant. Hartley made it clear that Milas had been responsible for certain conditions of the grant: "One is that we are not going to make you an outright gift of anything but buildings, but for the rest, we want you to get contributors to your endowment fund" (TR 3, p 9.) Hartley went on that there were also some conditions on releasing any matching funds. Hartley indicated that the F. W. Olin Foundation stated, " (that) we will only match hard cash or liquid assets. We will not match pledges or all this other stuff, which is a big, big difference, because lots of people give bequests…we are not going to count that stuff" (p. 9).

For Florida Institute of Technology, $25 million was a huge sum of money to raise as part of a capital campaign. The university had never raised those sorts of funds before, and the miniscule size of the university's endowment in 1997 was proof that this would be a major hurdle that had to be overcome by the university. In addition, the matching grant condition may have been Milas' final attempt to limit the size of the overall sum of money granted to Florida Institute of Technology. The lack of any substantial endowment may have been used by Milas as justification for including the matching portion in the grant's terms. Milas likely believed that the university would never raise the sums being offered by the match portion of the grant. For Weaver and Hartley, they could hardly afford to say no to the proposal despite the stipulations in the grant.

According to the 2002 Proposal to the F. W. Olin Foundation for additional funds, the endowment in 1997 was a meager $1.5 million dollars (Proposal 2002, p. 5). Hartley thought the sum was between "$2 or $3 million" (TR 3, p. 10) but it was actually less than that. By 1997, Hartley was not only the chairman of Florida Institute of Technology board of trustees, but he had also retired as CEO of Harris Corporation, though he remained chairman of their board of trustees. Hartley indicated that he believed raising the matching funds was doable: "Well the attractive thing to me was and the thing that was the selling point that I tried to use with my own board after I became chairman (of Harris), and with everybody else that we talked to, was that this double, 2 for 1, matching is pretty big leverage" (p. 10). While those weren't the exact terms of the grant being offered, they could be presented that way: raise $25 million, get $50 million from the foundation. The reality, however, was that the university was raising $25 million to

receive $25 million. This truth, however, did not deter the university from starting a fund raising campaign to meet the terms of the F. W. Olin grant.

Hartley started off the campaign by personally donating $1 million and said "I would like to see the board of trustees (of Florida Institute of Technology) step up…and one or two of them made significant, very significant gifts; other ones, they kinda went by their ability to do so" (TR 3, p. 10). The F. W. Olin grant said the university had five years to raise the matching funds, or they would lose those promised funds. Hartley believed that they had, over the course of five years, "a reasonable probability of reaching the goal, or coming close" (p. 10).

The university's development office had never tried to raise that sum of money without a specific building or project in mind, and as Hartley pointed out, "the fact that we had an endowment that was so small that would be indicative of the success we had" in the university's efforts at raising money previously (TR 3, p. 11). Simply put, fundraising was not a significant part of the university's culture in 1997, and a university run by engineers perhaps thought that fundraising was simply not part of their purview. With this lack of a fundraising tradition and very little in the way of alumni giving, the university's board of trustees hired outside consultants to help with this fundraising goal, but Hartley didn't think they were overall very useful. Hartley remembered, "we hired a consultant who came in. She did the normal things that people in that business do. They had their pyramid on their chart" (p. 11). Hartley admitted that the consultants were useful in pointing out the obstacles in raising such a sum of money "but in my experiences, the only way you raise money like this is to get people who believe in what they are doing to go out and knock on doors and twist the arms of their friends and their business acquaintances and that sort of thing" (p. 11). This may not have been the advice given by the consultants, Hartley

indicated, but it was the way he suspected that the university would raise the matching funds needed.

Hartley, using his leverage as chairman of the Board of trustees of Florida Institute of Technology and now as chairman of the board of Harris Corporation, put his efforts towards leading this fund raising effort. Harris Corporation, after Hartley approached his board directly, donated to the university a corporate grant of $5 million dollars to kick off the fund raising. This was identical to the amount the Harris Corporation had given to the university in the earlier campaign. Hartley mentioned that "there was a special situation (this time) where we could make a gift to Florida Tech that was going to be tax advantageous to Harris and I said look, why don't we give that all to Florida Tech and do it in a way designated, not just to the Harris Foundation, but designated to Florida Tech so they could get the money" (TR 3, p. 11). Other members of the university's board contributed significant amounts of personal money. Both Hartley and Weaver indicated that Charles Clemente, a board member and at the time Chief Operating Officer at AOL, pledged $1 million in AOL corporate stock. Weaver also stated that board member Dr. Allen Henry, then Vice President and General Manager of JDS Uniphase Broadband Products, donated between $1.5-$2 million, and a significant (but undisclosed) amount was also donated by board member Bjornar Hermansen, President and CEO of the Hermansen Group, (TR 1, p. 18).

According to the 2002 Proposal to the F. W. Olin Foundation, the $25 million dollar endowment campaign was called the Campaign for a Rising Star. Part of this money being raised would be used to fund the university's endowment. Some of the money raised would be used to bring to the university new faculty, the so-called "rising stars," who would be paid above market

rates of $100,000 per year in salary, and were offered new facilities in the buildings then being constructed, along with financial support for their research funding. As Hartley stated, the terms of the 1997 grant gave the university five years to match the funds. But in the end, despite the best efforts of the university, according to Hartley, "we did not end up meeting the goal" (TR 3, p. 13). There had been financial difficulties, including the 2001-2002 financial crisis that had negatively impacted the amounts of money raised. For example, according to Hartley, "We had one of the guys who agreed (to a $1 million), and put his stock up, but said it was there, and I'll turn it over to you guys whenever you want it. The stock value was in one of the high flying California start ups, and by the time we got around to cashing in on it, it had gone from a value of around $1 million to (around) $200,000" (TR 3, p. 14). They had similar problems with Charles Clemente's AOL stock that had also plunged in value during the financial crisis of 2000-2001. Charles Clemente's money had been specifically earmarked to create a new athletic facility for the university. Dr. Anthony Catanese remembered that on his first day as the new president of Florida Institute of Technology in 2002 he was asked by the university's Board of trustees to go out and raise $1.6 million dollars so that the Clemente Sports Complex could be finished (TR 2, p. 1).

The direct cash portion of the 1997 F. W. Olin Foundation grant principally went to fund two new buildings on the campus of Florida Institute of Technology: the F. W. Olin Engineering Complex and the F. W. Olin Life Sciences building. A much smaller portion of the cash grant also went to fund the F. W. Olin Sports Complex, as the repositioned athletic fields were now called. The F. W. Olin Foundation, as mentioned earlier, had made all of their grants for new buildings so-called "turn-key" operations, i.e. the grant would fund not only the building's

construction, but also all internal furnishings, from desks and chairs, to computers and laboratory equipment. The buildings were meant to be operational from the day the doors were opened for occupancy. However, Dr. Weaver pointed out that "there was no maintenance allocation" in the granting funds, which meant long-term upkeep was the responsibility of the grant recipient (TR 1, p. 15). This lack of maintenance funding would again become one of the hidden though not unexpected costs of accepting the grant. As the literature on foundation giving indicates, these maintenance costs often become significant drains on university finances once the grant is finished. In this case in particular, the F. W Olin Foundation money was being used to finance two "state of the art" engineering and science buildings, filled with expensive laboratories and scientific equipment, all of which would eventually age over time and need to be replaced with more modern and up-to-date equipment and labs. The university also would not be able to go back to the F. W. Olin Foundation in 10 years time to ask for an additional grant for improvements, as the foundation would no longer be in existence. In 1997, however, those were still distance concerns for the university's administrators.

Dr. Weaver was personally responsible for choosing the contractors to construct the two new buildings. Weaver chose to go outside the local area to find contractors, as he stated "(to) try to get the best contractor we could. To get the people that we felt had the experience of building buildings of this magnitude" (TR 1, p. 19). John Milbourne, now Director of Facilities at Florida Institute of Technology, was in 1997 appointed, in his words, the "clerk of the works," i.e. the project manager representing the university and who acted as a liaison between the architect, the contractor and the F. W. Olin Foundation (TR 4, p. 1). Milbourne noted that the architectural firm chosen by Dr. Weaver was VOA Associates, who had done some work at the university

previously (p. 1). Milbourne noted that VOA Associates Inc., while headquartered in Chicago, had an office in Orlando, Florida, and he noted that they were experienced with construction in higher education and were thus chosen based on that experience as the architectural designers of the two new buildings (p. 1).

Milbourne stated that Winter Construction based in Atlanta, Georgia, was chosen as the principal contractor, and they were responsible for overseeing the hiring of subcontractors for various aspects of the job (TR 4, p.2). The land selected for constructing the F. W. Olin Life Science and F. W. Olin Engineering buildings was in 1997 being used for a baseball field and drainage. The baseball field needed to be relocated and funding was included for this by the F. W. Olin direct grant. Milbourne noted that there were some problems with the construction early on, stating "the electrical subcontractor (chosen) was very, very closely associated with Winter Construction. They were both (based) out of Atlanta. (However) they were a union subcontractor and it was very puzzling how they could be the low bidder in a non-union climate." (p. 2)

The problems began to grow with this particular subcontractor. Milbourne indicated that they were "papering the project to death" and charging for every slight alteration in the plans (TR 4, p. 2). Milbourne went on that every small change was extremely costly: "It was a ridiculously exorbitant number that they came up with for a change order" (p. 2). Milbourne believed that this was one of the ways that contractor was trying to make up for their low bid for such a large project. The electrical sub-contractor also began to run behind schedule and some planning issues came up as they ran farther and father behind. Milbourne remembered that "one of the lighting vendors basically had the same set of drawings (provided to them) and we think

that the vendor missed an entire building of light fixtures" (p. 2). Milbourne noted that it was a pricey error costing the university about $250,000 (p. 2).

According to Milbourne, part of the problem arose from the insistence of the F. W. Olin Foundation on always choosing the lowest bidder for the project: "they were pretty adamant about sticking with the low bid" (TR 4, p. 3). The architectural firm, VOA Associates, provided a list of potential contractors who had prior experience with higher education. The university then developed a short list, and from there were allowed to offer invitation bids rather than an open bid, while the F. W. Olin Foundation insisted all bids be competitive (p. 3). Milbourne related that Winter Construction approached VOA Associates once they learned of the construction bid for the university buildings since they were already doing work in Tampa and other areas around Florida at that time. Milbourne stated that VOA Associates strongly recommended Winter Construction, and that Winter Construction was chosen when their bid came in $250,000 lower than any other bidder (p. 3). This apparently satisfied the board of the F. W. Olin Foundation, but in hindsight was not the obvious or best choice to do the physical construction of the two buildings.

Milbourne, who would be overseeing the day-to-day construction project for the university, had a different bidder in mind: Perry Parrish Construction. Milbourne was familiar with the work Perry Parrish (today they are called the Parrish Construction Group, Perry, GA) had done in higher education and they had recently constructed a similar engineering building at the University of Florida (TR 4, p. 3). Moreover, Milbourne noted that the bid submitted by Perry Parrish was the second lowest bid, and there was some rigorous discussion between

Milbourne and his boss over which of the short list of five bidders would successfully complete the job. He stated that

> I kinda argued that you can interview five people for a position but only one of those will rise to the top and be your number one choice. He didn't buy that and he insisted that we go with the low bidder and we ended up with Winter Construction (TR4, p. 3).

The issue of going with the lowest bidder, Winter Construction, over the experienced firm, Perry Parish, became even more of a problem in the early fall of 1999, soon after the construction of the two buildings was completed. In September 1999, the effects of Hurricane Floyd struck the Melbourne area. While the hurricane was originally predicted to strike directly at Florida, it remained off the eastern coast of the state. The offshore storm still caused damage to Melbourne and to the buildings of Florida Institute of Technology. The powerful category 4 hurricane brought wind and rain to the new F. W. Olin Buildings and interrupted the dedication ceremonies. In the storm's aftermath it was apparent that many of the buildings' windows failed and water damage was significant in both buildings. Florida Institute of Technology officials went to Winter Construction with a demand to repair the significant damage inflicted to these recently completed buildings, damage that Milbourne believed was due to the construction flaws exposed by the hurricane's winds and rain. Remember, Milbourne noted, that these two buildings were meant to be "turn-key" construction projects. They had been fully furnished and equipped and were ready to be filled with faculty, staff, and students once the dedication ceremony was completed.

Now new problems began to arise. Winter Construction had recently undergone a change in management and its new president and senior staff stated, according to Milbourne, "we would have never signed this (original) contract" (TR 4, p. 2). Apparently, Milbourne noted, the

language of the contract left them liable for the buildings with an implied warranty they, the new management, did not agree with. The result was that the university had to sue Winter Construction and their subcontractors to repair the damage to the buildings' interiors and the furnishings. Milbourne believed that, in hindsight, they would have been better off going with Perry Parrish (TR 4, p. 3). He said firmly that in his belief "we would have saved lawsuits and probably a million and a half (dollars) by the time the lawsuit expenses were done" (p. 3). Once more, the terms of the F. W. Olin Foundation's grant had brought forward unexpected consequences with their insistence on choosing the lowest bid contractor and the university was left dealing with the expenses and headaches that had not been foreseen when the grant was accepted.

Milbourne recalled that his interactions with the F. W. Olin Foundation were also somewhat prickly throughout the entire construction process. His liaison from the F. W. Olin Foundation was a man named Ted Schultz, their field construction manager, who held a similar position to Milbourne's. Schultz, according to Milbourne, was a penny pincher in the very literal sense of the word: "If you were even a penny off on your reconciliation of expenses, of which there were many, because it didn't just include construction aspects, but there were furnishings and equipment purchases, and that type of thing…you had to find the (missing) pennies if you were off regarding our records versus theirs" (TR 4, p. 4). For those involved with Florida Institute of Technology's financial side of the project, this sort of nitpicky attention to ever detail was, according to Milbourne, "pretty much the norm" (p. 4). Milbourne noted that "you spent a lot of time going back and pouring over line items in detail that. You know it was understandable that they wanted to watch their money, but I thought it was more onerous than it really needed to

be" (p. 4). Milbourne, when asked on a scale of 1-10 how onerous he thought the entire process was, basing his conclusion on other projects he had to deal with over the years, stated that the work with the F. W. Olin Foundation was "probably a 9" (p. 4).

Meetings between Schultz and Milbourne were monthly. Milbourne reported that the university approved the progress payments for the contractor, but the process became complicated due to the tax-exempt status of the university as a non-profit organization. Milbourne remarked that "we did owner purchases for all the major components for the buildings and it added a pretty good degree of difficulty to the payment approval process because the university had to issue a purchase order for every piece of mechanical equipment the contractor required" (TR 4, p. 5). Milbourne then went on to note, "the contractor then had to make a deductive change order for the cost of the equipment so as to still maintain the warranty. It made for an interesting accounting process" (p. 5). It was all a very complicated process required by the terms of the grant and the oversight over the university's expenditures.

In a sense, all of Milbourne's insights into the problems that arose during the construction reflect Milas' concerns that university officials would some how misspend the money they had been allocated. These fine details were agreed to by President Weaver and the university board of trustees in their attempt to accept the funding being offered, but their practical implications only became apparent when people like John Milbourne were faced with them on a day-to-day basis. Yet this level of oversight for the first grant would be greatly diminished by 2002.

In 2002, Weaver and Hartley began a second and final attempt to get funding from the F. W. Olin Foundation. This time they were asking for money to build an additional building, as well as triumphing their success with the 1997 grant. The *2002 Proposal to the F. W. Olin*

Foundation noted that the university was still raising funds, but desired an additional $14 million to construct a third science building, the F. W. Olin Physical Sciences. This grant was approved by Milas and the remaining board members, even though Florida Institute of Technology had not managed to raise the entire $25 million they had claimed they would raise under the terms of the first grant. This $14 million grant would be the last significant grant given by the F. W. Olin Foundation to any institution besides their new college in Massachusetts.

By the time the university received the funds from the second F. W. Olin Foundation grant for construction of the F. W. Olin Physical Sciences building, things went much better with the entire construction process. According to Milbourne, this time, administration of the grant went much more smoothly:

> That one was a dream because, well number one, we did a design build, which is my favorite delivery method because you don't have the finger pointing between architect and contractor" and "the biggest thing was that gave us the money and let us administer it. We didn't have the interaction with Olin with them scrutinizing the books and the whole thing. Now they may have watched what the expenditures were, versus budget and that kinda thing, but I didn't have nearly the interaction and the need to account for every penny. All though we still did. We didn't have that level of scrutiny (TR 4, p. 5).

Milbourne believed the change was largely due to the fact that the F. W. Olin Foundation had decided to dissolve. He thought that they were basically allocating money and that the foundation board members weren't concerned with how Florida Institute of Technology was going to spend these final sums (p. 5).

However, there was one issue with the building of the new F. W. Olin Physical Sciences building. From the start, an observatory was to be built atop the new building, and it was meant to house one of the largest telescopes in the state of Florida. However, no telescope was installed

when the building was finished. Milbourne believed that there was not enough money in the budget for the telescope and, in addition, no firm decision had been made on what size telescope was to be installed (TR 4, p. 8). When asked if this was an exception to the F. W. Olin Foundation's instance on turn-key operations, Milbourne clarified that "I think it was an agreement early on that that was something that the owner (Florida Institute of Technology) would take care of" (p. 8). Dr. Catanese noted that funding eventually came from a donation by a member of the board of trustees for the new telescope, though for many years the dome lay empty.

Dr. Catanese, who became the new university president in 2002, oversaw the end of the first grant and much of the construction under the second grant. Catanese also noted that there were issues and conditions to both F. W. Olin Foundation grants that didn't necessarily negatively affect construction, but nevertheless seemed odd to him. Catanese noted similar concerns to Milbourne's, indicating, "while the building part was quite successful, they (the Olin Foundation) had a lot of strings and you had to prove your theme to them. I had been doing this kind of work for a while, and as an architect and planner myself, they had a lot of conditions on how their money could be spent" (TR 2, p. 2). He went to elaborate these conditions: "Well you could not spend money for the building more than two feet from the footings. So no landscaping, no parking lots, no sidewalks. So while the original building may have cost X, it was really X+Y" (p. 2). Milbourne clarified Dr. Catanese's "two feet" by stating that it was "five feet from the footings of the building" (TR 4, p. 9). These constraints and conditions required the university to use their own money to prepare the building sites for construction, and after the construction was done, to prepare the landscaping around the buildings themselves.

Milbourne agreed with Dr. Catanese that the planning requirements from the F. W. Olin Foundation were a bit odd. Milbourne did provide some reasons why he thought the foundation had those limitations: "utility infrastructure can be quite expensive and they may not have understood what was necessary to bring the utility infrastructure and site work to the building" (TR 4, p. 9). Milbourne did theorize that the F. W. Olin Foundation was "all glitz and glamour" and that though this infrastructure work was costly and necessarily, it was also unseen "much like a president of a university hates to spend money on a roof because you don't see it" (p. 9). The F. W. Olin Physical Sciences building was constructed beside the F. W. Olin Engineering building, allowing it to benefit from the infrastructure put into place for the earlier construction. However, Milbourne did note that since the university was given direct control over a large sum of money for the F. W. Olin Physical Sciences building's construction, that the university used some of that money for final infrastructure costs to all three buildings.

These hidden infrastructure costs, according to Milbourne, were quite expensive. The location of the three buildings had been a baseball field and basically no infrastructure existed except for a sprinkler system. They also had to raise the height of the land the buildings would be constructed on so that an underground system of pipes and conduits could be put in place. Milbourne indicated that this raised building pad was necessary because "you had all the piping and construction work and everything else underground throughout this newly raised area, (meant) to support the building since there are no basements here in Florida" (TR 4, p. 9). Once the first two buildings were constructed, they already had fire, water and sewer connections in place for the F. W. Olin Physical Sciences building which meant that infrastructure costs were lower for the third Olin building. Milbourne did note that the City of Melbourne had an

unexpected request during the earlier construction in 1997, which was not really related to any of the construction of the two new buildings. He stated that

> We had one unexpected request from the City Melbourne, you know, who typically hold us hostage. They wanted a parking lot paved up here, at the corner of University and Babcock St. Okay, no big deal, but the principal of the thing was annoying. Totally not part of, totally separate issue from the construction of these new buildings. But it needed to be done and actually I was quietly happy about it because I wanted to get the lot paved anyway (TR 4, p. 10).

Again this was an unexpected cost and consequence of the grant, one that could not necessarily be foreseen by the university when accepting the grant. Of course, Milbourne noted, that the cost of this parking lot had to come from another revenue stream than the grant.

Milbourne did remember that there was one stipulation that applied to both contracts that he found somewhat odd, but it did not negatively affect the construction in any way. He stated that "there was a stipulation that…if you were a little bit short of financing or needed money for something else, that they were very much opposed to, for instance, naming a seminar room after somebody in exchange for a donation or for a scholarship or something like that. They wanted everything to be strictly (named) Olin. That didn't really effect me, but it was weird kinda" (TR 4, p. 11). It would also mean that in the future, additional funds for upkeep and maintenance, or even the replacement and upgrading of lab equipment, could not be funded through a university's usual method of naming a space within a building after a donor who provided funds for refurbishment. This small demand written into the grant by the F. W. Olin Foundation would have a much larger impact when it came time to updating the buildings ten years later and the current administration began to search for funds.

When asked about maintenance and ongoing upkeep of these three buildings, Milbourne noted that problems have crept up with some of the F. W. Olin buildings. The Life Science

building, for example, had to undergo a $1 million replacement of their fume hoods in their labs because they had deteriorated and the airflow did not meet OSHA standards (TR 4, p. 16). Milbourne was frank when he said that "the more sophisticated a building is, and the Life Science building is very sophisticated, it's going to be costly to maintain. That one probably more so than you would expect" (TR 4, p. 16). Milbourne went on to add: "we probably didn't have the greatest mechanical design and components, certainly in the control aspects. It has also been more of an energy hog than it needed to be" (p. 16). Part of this most likely was due to the F. W. Olin Foundation's requirements of going with the lowest bidder in all matters, as Milbourne confirmed. He also noted that more than fifteen years had passed since the buildings were completed and he stated that "I think when the Life Sciences building was built, technology wasn't quite the same as in the control valves for the exhaust system, and there again, I think the design was partially at fault" (TR 4, p. 17). He did note that the newer Physical Sciences building has been both much less costly in upkeep, partly due to changes in technology, and partly due to the university having full oversight of the building process and thus they were able to choose the exact equipment they needed rather than the lowest bid contractor provided equipment and machinery (TR 4, p. 16-17).

Milbourne concluded that the greatest impact from the two F. W. Olin Foundation grants has come from the lack of a maintenance and upkeep budget. Neither grant allowed for funds provided directly by the foundation to be used for maintenance and upkeep. Since these funds were not part of the original grants, their lack is becoming a problem as time goes on. Milbourne was frank when he noted, "there really is no money being put aside, say for major capital improvements. We have a couple hundred thousand dollars in contingencies for repairs and

breakdowns" (TR 4, p. 16). However, to be fair to Florida Institute of Technology and the current administrator, Milbourne did state emphatically "most universities have a huge deferred maintenance bill, and backlogged repairs" (TR 4, p. 16). Even Dr. Catanese, Florida Institute of Technology's current president, acknowledged that there were problems with the original F. W. Olin Foundation grants. Catanese indicated that there were symptoms of a much larger problem, noting that "the big debate in all of American higher education when you accept a bricks and mortars grant, (is) should you get an endowment for operations and maintenance? They (the F. W. Olin Foundation) absolutely refused to do that" (TR 2, p. 2).

In the end, the grants provided the university with three new F. W. Olin Buildings—Engineering, Life Science, and Physical Sciences—along with buildings that were funded from money raised during the matching funds campaign, including the Charles and Ruth Clemente Center for Sports and Recreation, and the new sports fields to replace those built upon by the F. W. Olin buildings. The grants also shifted the university's fund raising culture, requiring them to find new ways to raise sums of money they had never previously contemplated. This need to raise funds on an ongoing basis became one of the reasons why Dr. Anthony Catanese was chosen by the university's board of trustees in 2002: Dr. Catanese had a proven track record as a fund-raiser while president of Florida Atlantic University and something he readily acknowledged in his interview. In fact, by 2004, he had begun a capital campaign to raise nearly $50 million, using the year 2008 as the end of the campaign, marking the 50th anniversary of the university. According to Dr. Catanese, the university raised nearly $60 million dollars by the time the campaign concluded in 2009. The university is currently in the "quiet campaign" phase to raise another $100 million dollars by 2018. Sums of money have been raised in repeated

capital campaigns that would have been unimaginable, frankly unthinkable, when Dr. Weaver and Jack Hartley were negotiating with the F. W. Olin Foundation board for the initial grant in the late 1990s.

Moreover, the university found its very institutional culture changed by accepting the grants from the F. W. Olin Foundation. One obvious example occurred in the late 2000s, when the university began to shift its organizational culture to meet the demands of local corporations, such as Harris Corporation. These local business leaders found it difficult to understand the power of a dean or to differentiate between the numerous academic vice presidents that existed at the time. Thus a step in the obvious "corporatization" of American higher education, including Florida Institute of Technology, was undertaken. This change saw the proliferation of corporate sounding titles, including senior vice president, associate vice president, senior associate vice president, and assistance vice presidents, granted to administrative positions in order to clarify the university's organizational structures. No longer is Dr. Catanese simply the president of Florida Institute of Technology, but he is also the President and CEO of the university. Dr. T. Dwayne McCay joined the university in 2003 as Provost and Chief Academic Officer, but today holds the title of Chief Operating Officer, a title commonly found in corporate culture but until the 21st century, rarely found in academic ones. Nevertheless, he still functions as the university's provost despite the outward change in title. However, the university's overall bureaucracy has become more corporate-friendly, at least in maintaining the hierarchy of officials and their relationship to the centers of power at the university. As the 21st century continues, Florida Institute of Technology finds itself becoming more business-friendly in its

administrative structure, reflecting the larger and problematic issue of the corporatization of higher education.

Research Questions

The research for this study was guided by three questions listed below. In each of the next three sections below, I will specifically discuss where the transcripts and primary materials provide answers to the research questions.

Research Question 1

In what manner, and to what extent, were the institutional autonomy and operations of Florida Institute of Technology effected by the awarding of a $50 million dollar grant from the F. W. Olin Foundation in 1997?

Since there were actually two grants, one in 1997 and the other in 2002, both of these will have to be discussed in turn. The first grant, for approximately $50 million dollars, was broken into two parts: an outright $25 million dollar grant and a $25 million dollar matching challenge grant. Through press reports and supported by the university's *2002 Proposal to the F. W. Olin Foundation*, the total grant was reported as a record setting $50 million lump sum for Florida Institute of Technology. As indicated early in the chapter, in reality it was $25 million cash grant for the construction of two buildings plus a matching challenge grant of an additional $25 million. A second grant, issued by the F. W. Olin Foundation in 2002, was for a further $14 million dollars despite the university failing to raise all $25 million dollars of its required match.

What did this mean for the university's institutional autonomy and operations? At least initially, the two grants seemed to have few direct effects on the either Florida Institute of Technology's autonomy or operations. Yet as detailed in the case-study overview of events above, they would have long-term costs that would arguably provide negative effects to the university's institutional autonomy and operations.

First, the university found itself being forced to raise an additional $25 million dollars as part of the terms of the overall grant. Up to this point, as pointed out by Jack Hartley, the university had very little financially to show for its operations since beginning in 1958. Its endowment was almost non-existent, a mere $1.5 million, but the university had continued to operate, living from year-to-year primarily on what student tuition dollars it took in. Hartley was clear and upfront with board of the F. W. Olin Foundation that there were real weaknesses with the school: "(It) was true we had no endowment, that we were living year to year" (TR 3, p. 8). However, the university had students and was keeping its doors open and accreditation intact.

Once the grant was negotiated, Dr. Weaver, Jack Hartley and the university administration had to confront a development office that was largely dysfunctional. The evidence of the miserable state of the university's endowment and failure of previous fund raising to meet even modest targets was proof of that dysfunctional state. Dr. Catanese pointed out in his interview that none of his predecessors, including Dr. Weaver, had truly been interested in fund raising, and that Dr. Weaver became interested only when the challenge grant was issued. Dr. Catanese stated that Dr. Weaver once told him "(Dr. Weaver) considered it a failure if he had to go out and ask people for money" and that his predecessors, including the university's first president, Dr. Keuper, felt the same way (TR 2, p. 10).

What this meant was that the university infrastructure required to raise $25 million did not exist. The university was not only forced to strengthen its development office in the long-term, but in the short term, it had to rely on the university's board of trustees to personally raise the initial funds for the $25 million matching grant. Called the "Campaign for a Rising Star" initially fund raising was primarily meant to strengthen the endowment, but it also had to fund other requirements proposed by the university to secure the grant from the F. W. Olin Foundation. Moreover, the university also had to raise funds for unexpected costs, primarily infrastructure improvements that were not covered by the $25 million direct construction grant.

The university, according to Hartley, understood that the initial tranche of $25 million dollars would be used for constructing new buildings only, including the F. W. Olin Engineering Complex and the F. W. Olin Life Science building. Some of the money would later be used for construction of the Clemente Sports Complex. Hartley made it clear that Milas had certain conditions, stating: "one (condition) is that we are not going to make you an outright gift of anything but buildings, but for the rest, we want you to get contributors to your endowment fund" (TR 3, p 9.) Hartley went on, indicating that there were also some conditions on releasing any matching funds. Milas, Hartley noted, stated that the F. W. Olin Foundation would "(only) match hard cash or liquid assets. We will not match pledges or all this other stuff, which is a big, big difference, because lots of people give bequests…we are not going to count that stuff" (p. 9).

In the end, the university discovered that one of the traditional ways of raising money—long-term bequests—would not be usable for raising funds. These bequests usually came as a sum of money given to the university upon the benefactor's death and legally secured through a will or a trust. This meant that it was up to the board of trustees of Florida Institute of

Technology to provide the initial support for the fund raising from their own personal and/or corporate donations, and then hope that the university's development office could come up with the rest of the needed funds. In the end, according to Jack Hartley and Dr. Catanese, the university fell short of reaching the $25 million dollars it had promised to raise.

According to Dr. Catanese, this forced the university to realize that it would have to become a more modern university when it came to fundraising. Dr. Catanese stated, "the board of trustees came to realize the modern university president, (at a) private university, has to be a fund raiser. It is just an absolute requirement of the job" (TR 2, p. 10). When Dr. Weaver retired in 2002, the university board of trustees broke from the tradition of hiring a traditional engineering oriented president to specifically hire a fund-raising president. "I think that is why I am here," stated Dr. Catanese, "(and my) real success has been in university fundraising. That is what I did at FAU and so the first thing we did here was start a $50 million dollar capital campaign" (TR 2, p. 9). He went on to remark "so (there is) no doubt in my mind, I mean of the many qualified candidates, what they (the board of trustees) saw in me was the fund raising capabilities and interest" (TR 2, p. 9-10).

As for institutional autonomy, most of the restrictions came from the terms of the first grant rather than the second. As pointed out by Dr. Catanese and John Milbourne, the F. W. Olin Foundation placed limitations, often-severe limits, on how the money could be spent during the construction process. Both of these men made it clear that the F. W. Olin Foundation only wanted buildings built and furnished and would not provide funds for infrastructure nor would money be allocated for continued maintenance or future equipment upgrades. None of the initial $25 million in direct cash could be used for anything other than construction costs. It was not

entirely clear what the foundation's matching grant funds could be used for, though the university saw its share of the matching grant going primarily to improving the meager endowment, hiring new faculty, and the miscellaneous costs involved in the construction projects. This lack of clarity, might in fact, have been an intentional oversight, as Milas doubted the university would ever be able to raise the sums necessary to meet the terms of the matching grant.

However, perhaps the greatest single effect on the university's autonomy was the condition that Jack Hartley had to become chairman of the university's board of trustees if the university was going to get any money at all from the F. W. Olin Foundation. While Lawrence Milas of the F. W. Olin Foundation seemed against providing any money to the university at all, especially after the decision had been made to open up the F. W. Olin Engineering College in Massachusetts, it was the personal relationship Hartley had with Schmidt and Horn that ensured some sort of grant was going to come to the university. Hartley's business acumen was also essential in convincing Milas that any money granted to the university would be in good hands. According to Dr. Catanese it was Hartley's status as the CEO of Harris Corporation, a Fortune 500 company that helped to cement the deal (TR 2, p. 7).

It is important to note that Hartley stated in his interview, that he was approached privately by Milas with the condition that he become the head of the university's board of trustees if any money was to come to Florida Institute of Technology. Hartley, to his credit, said he would accept the position of chairman of the university's board of trustees only as long as the rest of the members of the board agreed (TR 3, p. 9). This was, in some ways, a form of foundational "blackmail." The F. W. Olin Foundation dangled a large sum of money (and the

potential for much more) with the condition that the very board of trustees meant to oversee the autonomy of the university be changed for their benefit. In this case, the benefit being that their money would be overseen by a chairman of the university's board of trustees that had the experience of running a large and successful corporation. In the end, this change seemed to work out for the university. Both Dr. Weaver and Dr. Catanese both agreed that if it were not for Jack Hartley, the university would not have received the money it did. Yet is troubling that the F. W. Olin Foundation would go so far as to undermine the university's autonomy by setting conditions as an "either/or" set of circumstances to accept the money. I can find no evidence that the foundation made this singular demand of any other university to which they granted money in more than 50 years of grant giving.

Research Question 2

In what manner and to what extent did the conditionalities of the grant from the F. W. Olin Foundation (especially the request for matching dollars) impact the relationship between the foundation and the university?

Florida Institute of Technology, perhaps like many small institutions willing (or desperate) to accept "bricks and mortar" grants, never full understood how it would be effected by the money it received. But the effects, in this case, go back even further to the initial request for a proposal for a $100 million dollar transformational grant from the university. As noted by Weaver and Hartley, there was a point in which the university leadership sincerely believed they were going to get a much larger sum of money from the F. W. Olin Foundation, money that would transform the university in both the short and long terms. All three administrative figures (Dr. Weaver, Jack Hartley, and Dr. Catanese) interviewed agreed that at one point there was

some serious discussion with the F. W. Olin Foundation board about Florida Institute of Technology becoming the new Olin College of Engineering. Yet, as discussed earlier, that did not come about as the F. W. Olin Foundation's board had already decided to open up a new university in Massachusetts and one to be associated with Lawrence Milas' alma mater, Babson College.

However, the university eventually received two different grants. The first grant was for $25 million dollars in dedicated fund for constructing new buildings, and a matching challenge grant for $25 million dollars. Florida Institute of Technology was meant to raise an additional $25 million dollars to match the challenge grant. This sum was more than the university had raised to this point and it had a development office that perhaps was not only unable to raise such funds, but was seen by those of the university's board of trustees as incapable of doing so. Thus the $25 million dollar Campaign for a Rising Star was largely initiated and overseen by the university's board of trustees, including Hartley who made the initial donation. Dr. Weaver mentioned that the development office under Paul Winston helped with the campaign, as well as writing the formal proposals to the F. W. Olin Foundation, but both Jack Hartley and Dr. Catanese state that it was largely the work of the university's board of trustees that ensured that the university came anywhere close to achieving the sums demanded by the matching challenge grant (TR 1, p. 10; TR 2, p. 6-7; TR 3, p. 10-12).

Ultimately, Hartley stated that the university fell short, reaching between $20-$21 million (TR 3, p. 13). Dr. Catanese thought the sum was perhaps closer to $22 million (TR 2, p. 7). The *2002 Proposal to the F. W. Olin Foundation* was unclear how much exactly had been raised at that point. An attached memo found within the 2002 Proposal, however, indicated that the

university had raised $21 million by January 2002, and was expected to raise between $22 and $24 million by the time the challenge grant ended in April 2002 (Fax from the F. W. Olin Foundation, 22 May 2002). It is likely that between $21-$22 million was raised as Dr. Catanese indicated.

The F. W. Olin Foundation had several conditionalities that made raising the money difficult and more onerous than it needed to be. Hartley, as mentioned earlier, could only rely on cash or cash equivalent donations as part of the matching challenge grant. Universities typically rely on a number of different sources in fund raising campaigns, including bequests, legacy gifts and gifts of goods or services in kind. In this case, while such gifts could and were accepted by the university, their value could not be included in the sums reported as matching funds towards the challenge grant. In order to help raise the sums of money Florida Institute of Technology needed to meet its goal, Hartley stated that the university hired more development people as well as consultants (TR 3, 11). Hartley didn't think very much of the consultants, stating that "we paid them a fee to come in and they were useful, sort of, but in the final analysis and in my experiences, the only way you raise money like this is to get people who believe in what they are doing to go out and knock on doors and twist the arms of their friends and their business acquaintances" (p. 11). This meant that Hartley and others on the university board of trustees opened their own wallets to provide personal funds, or used their connections to twist arms of their corporate colleagues and employers to provide sums.

Some of the sums raised this way were staggering in 1997. Hartley stated that he used his influence with the board of Harris Corporation to provide a significant gift of between $3-5 million dollars to Florida Institute of Technology (TR 3, p. 11-12). Dr. Weaver thought that the

amount was $5 million dollars, confirming Hartley's recollection (TR 1, p. 17). According to Dr. Weaver, other board members gave sums ranging from $2 million dollars in cash, to $1.5 million or so in corporate stock, and Jack Hartley led off the personal fund raising campaign with $1 million from his own pockets (TR 1, p. 17-18). If the recollections are to be trusted at all, even a ball park figure puts quoted sums initially donated by the Board of trustees as close to $10 million dollars, with the Harris Corporation providing between half to nearly one-fifth of the total with their initial grant. Nevertheless, as indicated in the previous section, the university fell short between $2-3 million. However, this was still a significant achievement given that the university started the campaign with approximately $1.5 million in their endowment and would end up with close to $30 million by 2002. Funding raising, and a functional development office, would now become a part of the institution's day-to-day business experience.

The conditionalities also affected the construction of the first two buildings themselves. As noted by both Milbourne and Catanese, the university was forced to pay for all infrastructure costs for the buildings, as well as for landscaping, including sidewalks, providing for parking spaces and any non-direct construction, equipment or furnishing cost. As Milbourne noted in his interview, these costs were quite extensive in the case of infrastructure construction of the F. W. Olin Engineering Complex and the F. W. Olin Life Sciences buildings that were situated in what had been a baseball field previously. The Clemente Sports Complex, consisting of gymnasium facilities as well as basketball and squash courts, was partially funded by the 1997 F. W. Olin Foundation grant. It too had infrastructure costs as it was to be built on land used by the university's facilities plant. These extra costs had to be met out of the funds being raised by the

$25 million challenge grant, which in turn meant that these funds could not go towards building up the university's endowment or any of the other goals of the Campaign for a Rising Star.

These construction conditionalities also led to micromanaging by the F. W. Olin Foundation's appointed liaison with the university, Ted Schultz. Increased costs were incurred by the university in reconciling the vast amount of paperwork involved with the project, as described by Milbourne. Moreover, the demand by the foundation that Florida Institute of Technology choose the absolute lowest bidder for construction would lead to unforeseen problems once construction began. As described in the case study overview, these included delays and cost overruns dealing with electrical subcontractors, problems with lighting fixtures that ran into hundreds of thousands of dollars of added expenses, as well as shoddy construction that resulted in extensive water damage to both buildings and their interiors after suffering through the effects of Hurricane Floyd in 1998. This last set of conditions led to a long and drawn out lawsuit that cost the university between $1 and $2 million before settling with Winter Construction over their failure to honor their implied contractual warranty.

Dr. Catanese hinted at problems that occurred after his arrival. Because the university failed to meet the full amount of the matching funds, he believed that the overall amount the university received from the F. W. Olin Foundation was only around $60 million in total, and that included the second grant for $14 million dollars (TR 2, p. 5). While the math and figures from available university documents seem to indicate that the university received the full $25 million direct building grant in 1997, along with an additional $14.1 million grant in 2002 for the construction of the F. W. Olin Physical Sciences building, it is not entirely clear how much of the matching $25 million challenge grant the university did receive. But to be honest, the financial

situation is somewhat opaque and no clear answer could be found as to whether the university received a total of $50 million or slightly less than $64 million if both the 1997 and 2002 grant monies are added together.

The university did manage to raise between $21 and $22 million from the Campaign for a Rising Star, but a good portion of this went towards unforeseen costs and building up the endowment. Increasing the endowment was one of the demands of the F. W. Olin Foundation and was something that Milas had been worried about in 1996. Catanese went on further to say that because the university asked for a second grant of $39 million dollars in 2002, but received only $14.1 million dollars, this brought its own costs and headaches (TR 2, p. 5) From the *2002 Proposal to the F. W. Olin Foundation*, much of the $24 million that was not received was meant for the endowment ($15 million) and building maintenance and upgrade costs, along with salary funding and raises ($24 million) (2002 Proposal, p. 16).

Dr. Catanese also indicated in his interview that the university's Provost, Dr. McKay, along with other senior administrators had to finish the deal with the F. W. Olin Foundation for the second grant (TR 2, p. 1). Dr. Catanese believed that despite the negotiations begun by Dr. Weaver before his retirement, that Lawrence Milas was having second thoughts about the second round of funding provided by the F. W. Olin Foundation to Florida Institute of Technology. Catanese recalled, "I think if he could have, Milas would have taken the money and put it up in Babson that we had already been kinda promised" (TR 2, p. 7). He went on further to state:

> It was very hard to get (the money), to finish off the Clemente Center and to get them to fulfill their commitment. It was very hard, very difficult. They had questions about everything: furniture, equipment, and we had some problems with the previous building having sued the construction company. So they wanted to intervene in that. There was, I must admit in all my career, and in this field, I have never seen so much micromanagement…(you) know maybe it was because they were seeing an end point, or

> what have you. But somehow we got through it. But it was extremely difficult for McKay, me and then I guess was Jack Armault who was CFO at the time (TR 2, p. 7).

He went on to say that the foundation was fighting every last penny that Florida Institute of Technology was asking from the amount provisionally granted to them, and that in the end they were shorted by about $1 million dollars of the $14 million promised (TR 2, p. 7).

Research Question 3

What were the long-term administrative and organizational effects for Florida Institute of Technology in accepting the $50 million dollar grant from the F. W. Olin Foundation?

In the *2002 Proposal to the F. W. Olin Foundation* requesting an additional $39 million dollars, Dr. Weaver listed out the accomplishments of Florida Institute of Technology with the first grant. In the process of doing so, however, Dr. Weaver also laid out some of the long-term administrative and organizational effects for the university. Dr. Weaver stated that the university had met several critical factors that the F. W. Olin Foundation had recognized in their announcement of the first grant in 1997. These factors included: a commitment to engineering education reform, the balance between teaching and research, the quality of education with limited resources, and the belief of the F. W Olin Foundation that it "offers a substantial opportunity to advance engineering and science education in the Southeastern United States" (2002 Proposal, p. i). Dr. Weaver then lays out how some of the initial grant money was spent.

The 2002 Proposal stated that $4 million of the initial $50 million dollars was used to improve the hiring of new faculty for the College of Engineering as well as to improve the salaries of existing faculty (2002 Proposal, p. 1). While the money was spent over a five-year period of time, these new faculty and the increased salaries became part of a financial obligation

that would not covered in the long term by the $4 million dollar initial outlay. The university also used money raised during their portion of the matching grant campaign to endow other chairs at the university, as evidenced by the names of the new endowed chairs presented in the report (p. 2). These new endowed chairs hopefully would be funded out the endowments created for them. However, the increased salary costs would become an ongoing financial cost as well as creating an ever looming salary gap between these newly paid $100,000 per year faculty and many of the much lower paid faculty at the time, with full-time instructors in the Humanities and Mathematics making in the mid $20,000 range as annual salary.

Moreover, as Dr. Weaver pointed out in his proposal, the money raised in the Campaign for a Rising Star was also used to hire additional faculty, eventually 72 between 1997-2002 (2002 Proposal, p. 2). Though it is noted that some of these new hires were meant to replace retiring or resigned faculty, some were genuine new hires (2002 Proposal, p. 2). The university also managed to strengthen its Computer Sciences Department with new hires, but these individuals also brought both research funds and were generating patented software for the university that Dr. Weaver stated would bring in new revenue streams for the university (2002 Proposal, p. 2). These new revenue streams, ostensibly, would offset the expense of this new set of faculty, many who were also paid large salaries. A strengthened program in Computer Science also increased significantly the number of undergraduate and graduate students, each of whom brought in further tuition dollars. Additional funds, Weaver reported, were used to expand new graduate programs in Psychology and Meteorology (2002 Proposal, p. 5).

The university also used the money to fund three new buildings on campus: the F. W. Olin Engineering Complex, the F. W. Olin Life Sciences Building, and the Charles and Ruth

Clemente Center for Sports and Recreation (commonly, the Clemente Center). However, as it has been pointed out in several places earlier in this chapter, none of these buildings had infrastructure costs met by the F. W. Olin Foundation grants nor was there any provision for their long-term maintenance in these grants. Any maintenance and upkeep costs became the responsibility of the university. Since the revenue raised had been spent during the Campaign for the Rising Star, the university would have to embark a new round of fund raising to meet these associated costs.

The Clemente Center also ran into a funding shortfall that had to be met by Dr. Catanese who set about to raise an additional $1.6 million dollars soon after his arrival at the university. While it is true that the two Olin buildings brought 21st century technology to the university for the first time, providing the students who used those facilities with advanced instructional technology and modern research labs, there seems to have been little in the way of money set aside to bring these labs up to date as time passed. Now nearly 10 years after their completion, the dated facilities and increasing problems of aging buildings are complaints heard across campus, by faculty and students alike. As Milbourne stated in his interview, being built to the lowest bid has brought in additional and significant maintenance costs such as the more than $1 million being spent to bring the building's laboratory exhaust hoods up to meet current OSHA standards.

Perhaps the university's biggest achievement, according to the 2002 Proposal was bringing the endowment from $1.5 million to $30 million, partly through the university own matching grant as well as funds providing by the F. W. Olin Foundation through funds released

from their challenge grant (2002 Proposal, p. 5). It was a significant achievement even in light of the fact that the university failed to meet the full amount of the challenge grant.

However, the university also saw new costs that would have to be met even after this initial round of fund raising was finished. The development office had been greatly expanded to meet the terms of the challenge grant, and Dr. Catanese further expanded the office when he began a new $50 million campaign soon after his arrival. While the development office failed to meet the terms of the challenge grant, the university did go on to raise more than $60 million as part of its 50th anniversary celebration in 2009, and is now embarked on a $100 million capital campaign (TR 2, p. 9). However, much of this can be attributed to Dr. Catanese, an experienced academic fundraiser, being hired on both as the new university president specifically because of his fundraising skills. This is perhaps the greatest change in the university's culture, as a school that was unable to raise $25 million in the span of five years, has now managed to raise more than $100 million in less than ten years, and hopes to raise a total of $160 million in a little less than 15 years. These fund raising sums mean that the university is always looking for new sources of revenue or donations, and that in some sense, the fund raising campaign itself has become institutionalized, running in the background during the silent phase, or boldly and openly during the public phase, often many a large amount of the money has already been raised behind the scenes.

The university also saw its institutional autonomy challenged when Milas demanded that Jack Hartley be named chairman of Florida Institute of Technology's Board of trustees in order to provide oversight of the $50 million grant. While that seems to have worked out in the long run, Mr. Hartley, while no longer president, remains on the university's board of trustees. He has

also retired from Harris Corporation, but retains connections to the current corporate leadership. However, other changes have taken place with the university administration in regard to subsequent demands by outside bodies providing funding to the university. For example, in the spring of 2011, the university's board of trustees approved an administrative reorganization that adopted a more corporate sounding chain of command. The president of the university is now the President and Chief Executive Officer and the former provost is now the Executive Vice President and Chief Operating Officer, with the former title of Provost no longer in the university's table of organization (http://www.fit.edu/president/org-chart.php). The university even has a Chief Development Officer and a Chief Financial Officer, all of who have organizational roles understandable in the world of 21st century corporate boardrooms. Whether this was in response to new donor demands for a clearer corporate chain of command is unclear, but it is understood by faculty that the adoption of a non-traditional administrative rank structure by the university's administration was unlikely to be driven by internal factors. It is perhaps, simply, another sign of the corporatization of higher education in the 21st century.

Summary

Florida Institute of Technology was "transformed" by money provided through the two F. W. Olin Foundation grants. In a sense, the university was saved by the grants it received from the F. W. Olin Foundation, allowing it the university to continue into the 21st century. With only a $1.5 million endowment in 1997, the university managed to raise close to $22 million in cash in just five years, something the university had never managed to this point in its history. The F. W. Olin Foundation grants not only provided for the transformation of the physical landscape of the

campus with the construction of four new buildings—the F. W. Olin Engineering Complex, F. W. Olin Life Sciences Building, the Clemente Complex and the F. W. Olin Physical Sciences building, but also forced the university to accept it needed to do something about its fiscal health and move away from an overreliance on tuition dollars.

But at what cost? The F. W. Olin Foundation provided for new buildings but failed to fund their long-term upkeep. These costs for deferred maintenance and modernization are apparently catching up with the university more than a decade after the first buildings were completed. The university failed to meet its matching challenge grant total despite an increase in the size of the university's development office and the hiring of new staff and consultants. The university also found itself overly reliant on the ability of its board of trustees to personally lead the fund raising campaign. These struggles to raise the challenge grant funds convinced that university's board of trustees that the hiring of a professional fundraiser as the next university president was more important than having the next president act as its academic leader.

Despite it's failure to raise $25 million in matching funds, the success of Florida Institute of Technology board of trustees to raise $22 million in matching funds in the period 1997-2002 was an amazing achievement. This achievement was driven by having a Fortune 500 CEO as its president. However, no matter how much personal and corporate "arm-twisting" the board members used to raise close to half the matching grant's initial sums, the campaign ultimately failed. These men were not fulltime fundraisers, but often held corporate positions outside the university. They provided the fundraising campaign with a firm base, expecting the university and its development office to carry through with raising the rest of the matching grant. Despite investment in the university's development office and staff between 1997-2002, it was obvious

the university was not up to the challenge. However, the lessons learned from the failure of that campaign would result in the hiring of a new university president with fund-raising experience and who would see further investment in the development office paying off in the long run. A small private engineering university has now become like many of its peers, an academic fund raising machine.

The F. W. Olin Foundation stated a number of conditionalities to their grants that a cash strapped university was in no place to refuse. These conditionalities affected not only the financial health of the university, but also its administrative autonomy. Florida Institute of Technology, like many universities who have "won" large financial grants, has now come to be dependent on not only continuous fund-raising to meet day-to-day operating costs, but even a decade on, its endowment, according to Dr. Catanese, is approximately $55 million "but it should be twice that" (TR 2, p. 10). The university, having learned from its mistakes, managed to conduct a new fund-raising campaign of more than $50 million that concluded in 2009, and is currently in the quiet phase of a $100 million campaign. Yet much of this newly raised money has continued with brand new construction projects despite Dr. Catanese admitting that "had we received all of the money in the original proposed grant of more than $100 million dollars, I would have used it for a radical transformation of the deferred maintenance and frankly put as much of it as possible into an endowment" (p. 10).

The biggest question though, and it has to remain a what-if, is what would have happened to Florida Institute of Technology had they been chosen as the university to be "transformed" by the nearly $450 million dollars that the F. W. Olin Foundation had in its coffers in 1995. The F. W. Olin Foundation board members in the 1990s had grand visions for the future of engineering

oriented higher education for the 21st century, but a power struggle on the foundation board meant that Florida Institute of Technology became the runner-up and instead, a bold experiment in education was undertaken at the F. W. Olin Engineering College in Needham, Massachusetts. The success or failure of that experiment has yet to be determined. For Florida Institute of Technology, the $50 million dollar grant from the F. W. Olin Foundation in 1997 nevertheless transformed the university and has allowed it to grow and seemingly prosper in the 21st century.

CHAPTER FIVE: COMING TOGETHER

Introduction

In this chapter, the participants' stories introduced in Chapter 4 will be tied directly into the case study as an example of Resource Dependence Theory (RDT). I will look at the conceptual framework of Resource Dependence Theory (RDT) by reintroducing the ideas and examining the framework in relation to the findings. This chapter will conclude with a summary.

Conceptual Framework Revisited

Returning to the definition provided by Pfeffer and Salancik (1978), authors of *The External Control of Organizations: A Resource Dependence Theory*, Resource Dependence Theory, or RDT, proposes that actors lacking in essential resources will seek to establish relationships with (i.e., be dependent upon) others in order to obtain needed resources: "The potential for one organization influencing another, derives from its discretionary control over resources needed by the other and the other's dependence on the resources and lack of countervailing resources and access to alternative sources" (p. 53). Johnson (1995) stated that organizations, given a scarcity of any particular resource, often alter their behavior and/or structure of their organization to ensure that they receive the resource they wish to obtain.

This concept reflects the situation that existed between Florida Institute of Technology and the F. W. Olin Foundation in 1997. Florida Institute of Technology was in desperate need for a source of external funding that would prevent a slow slide into financial distress or academic irrelevancy. The university, had in a very real sense, placed all its eggs into a single basket. That

basket was to be provided by the F. W. Olin Foundation and a grant that could range up to $100 million dollars or more. In fact, as mentioned previously, the discussions were between the foundation and the university involved the potential for the university to be the beneficiary of all of the remaining assets of the foundation, a sum believed to be between $450-$500 million.

In this case, Florida Institute of Technology was the actor lacking essential resources—finances beyond tuition revenue—and the savior for this situation was the F. W. Olin Foundation. Dr. Weaver chose to establish a working relationship with the board of the foundation, though whether he would have described the relationship as a "dependency" is doubtful. But evidence provided in the interviews by Dr. Weaver and Jack Hartley hint at the desperation of the situation at Florida Institute of Technology in the mid-1990s. The university was approaching the 21st century with a non-existent endowment and stagnant enrollment, both signaling a death knell for a small private university too dependent on tuition revenue for its year-to-year operations.

The senior leadership at Florida Institute of Technology understood that any other sources of potential revenue were limited. The university had largely been unsuccessful in raising revenues as shown by the meager endowment of $1.5 million on hand during their negotiations with the F. W. Olin Foundation. Evidence from financial records provided during the request for a second grant in 2002 show how little revenue the university had been gaining in 1997 from sources such as research funding or patent leasing and sales. When serious negotiations began in 1995 with the F. W. Olin Foundation over the potential for a large grant to be given to the university, the lure of such potential funds show the first signs of how the university would alter its very behavior and structure, as Johnson (1995) indicated they would. It

was seriously contemplated by the university administration and selected members of the university board of trustees, as referenced by Jack Hartley and Dr. Weaver, that they would go so far as to change the name of the university to become the very Olin College of Engineering that Lawrence Milas was dreaming of creating in Massachusetts.

In the end, the larger sum of money came off the table for a variety of reasons, but the F. W. Olin Foundation still agreed to provide Florida Institute of Technology a grant of $50 million dollars. Once again, this was a sum of money that the university desperately needed and it is was more than willing to abide by terms and conditions laid down by the grantor despite these terms perhaps not being the most advantageous to the university. As predicted by Pfeffer and Salancik (1978) and Johnson (1995), Florida Institute of Technology would allow a fundamental change to their organization to allow an outsider in return for needed funding. In this case, the largest change was the demand that Jack Hartley take over the chairmanship of Florida Institute of Technology's board of trustees to provide oversight of the spending of the $50 million dollar grant by the foundation.

The F. W. Olin Foundation went further in exercising the control over the emerging dependent relationship when they laid out the actual terms of the grant the university would receive. While all of the primary figures, Dr. Weaver, Jack Hartley, and Dr. Catanese were aware that the F. W. Olin Foundation was known for providing building grants to private universities in the United States, this sum of money seemed to have a two-fold purpose. Not only was the grant to provide funds for the construction of two new buildings (ultimately three with the Clemente Center), but the challenge matching grant of $25 million dollars was meant to help the university

begin a process of transformation as envisioned by the leadership of the board of the F. W. Olin Foundation.

How exactly did the F. W. Olin Foundation exercise its control over the funding of the grant? This occurred in two primary ways, first by demanding that they have a say over the university's board of trustees, indicating that the grant would only be given if Jack Hartley agreed to become the chairman of the university's board of trustees. Second, the F. W. Olin Foundation ensured that just half of the money, $25 million could be used for construction, while the remaining money, an additional $25 million, would be given to the university at part of a matching challenge grant. A strong assumption could be made that Lawrence Milas believed the university would fail to raise the matching funds based on the then current financial status of the university and the virtually non-existent size of its endowment. In fact, a strong case could be developed for supporting this assumption that the university lacked the means to raise significant funds, which would limit the overall financial exposure to Florida Institute of Technology just at a time the foundation was beginning to transfer funds for the construction of the F. W. Olin College of Engineering.

Both Dr. Weaver and Jack Hartley were confident that the university, despite the weakness of previous fund-raising efforts and the apparent ineffectiveness of the development office at the university, that the money could be raised to meet the $25 million. The F. W. Olin Foundation also put stipulations on what could be considered donations to meet the matching challenge the grant's terms. As discussed in Chapter 4, this limited the university to using only cash or cash-equivalent funds as part of their matching grants. Yet even though the university fell short of reaching the full $25 million, something that both Jack Hartley and Dr. Catanese

confirmed, the university raised more than $20 million in five short years, something that had not been achieved previously at the university.

As discussed in Chapter 4, the F. W. Olin Foundation leadership envisioned the foundation leading a transformational process for educating engineers in the 21st century. The leadership, particularly Lawrence Milas, were disappointed that previous grants had led simply to the development of new buildings and had not resulted in any transformational education ideas being instituted into curriculums at these universities and colleges. Thus by leading through example, the F. W. Olin Foundation would establish a college that would provide the means to achieve this vision of 21st century engineering education. Lawrence Milas, it has been noted in Chapter 4, publicly stated that this failure to transform the education of engineering students by previous recipients of grants from the foundation was the primary reason for establishing the F. W. Olin College of Engineering as a showpiece to lead the way for his vision of how engineers should be educated in the 21st century.

The original discussions with Florida Institute of Technology involved whether the university could become this example of 21st century teaching and an example of transformational education practices. As relayed by Dr. Weaver, the initial discussions with Lawrence Milas had been over what the university would do with a $100 million dollar grant (TR1, p. 2). Both Dr. Weaver and Jack Hartley said that they believed there was dissension on the F. W. Olin Foundation board between Lawrence Milas and William Norden who agreed to dissolve the foundation and established a new college in Massachusetts, and the older Olin Corporate board members, William Schmidt and William Horn, who seemed to favor using an existing university to be the transformational test bed for Milas' ideas. Here was a way for the

university to try and leverage this apparent disagreement on the board to maintain some of their autonomy as well as perhaps to extra a larger sum of money then they eventually were granted. Jack Hartley stated that he and Dr. Weaver used their personal connections with Schmidt and Horn to adjust their correspondence with and proposal to the F. W. Olin Foundation to best secure the funds they were requesting. However, it is apparent that the F. W. Olin Foundation remained in control vis-à-vis Florida Institute of Technology in light of the university's acceptance of the terms imposed on accepting the grant.

Despite the challenges to institutional autonomy provided by the grant, Florida Institute of Technology managed to minimize the influence of the foundation on the university's governance. According to Pfeffer and Salancik (1978) administrators and managers could respond to their organizational dependence in any number of different ways, and these forms may not necessarily be concrete but may be symbolic in nature. Davis and Cobb (2010) noted that this could be summed up as a bit of advice to managers: "choose the least-constraining device to govern relations with your exchange partners that will allow you to minimize uncertainty and dependence and maximize your autonomy" (p. 6).

In a sense, the university did follow the advice provided by Davis and Cobb (2010) when it limited the direct influence over discretionary use of matching grant funding by only allowing the F. W. Olin Foundation to have a say on who would be the chairman of Florida Institute of Technology's board of trustees and not appointing one of the foundation's board to the university's board of trustees. As made evident by Greis (2009), when the F. W. Olin College of Engineering was established, all four members of the F. W. Olin Foundation's board became trustees of the new university, and Milas was the first chairman. That relationship with the

foundation continued with William Norden being appointed as the Chairman of the F. W. Olin College of Engineering's board of trustees after Lawrence Milas stepped down as chairman.

Johnson (1995), looking at the limitation of RDT, argued that RDT as a theory lacked the ability to clearly separate between the environment in which an organization operated in and the organization itself. Johnson also stated that RDT as a theory had a difficulty in separating the influence of individual actions and the role of individual influence at the organizational level. He presented another weakness of RDT, which was where a researcher places their his/her focus: on the organization itself, the relationships of the organization to those dependent on it, or on the amount and nature of the resources of the organization (p. 15). Finally, Johnson stated the potential greatest limitation is also the greatest strength of RDT: the focus on materialistic forces rather than on potential other forces (cultural, ideological, institutional tradition, etc.) that may affect the power dynamic (p. 16).

Johnson's arguments are partially useful in examining some of the potential weaknesses of too readily applying RDT to the situation between Florida Institute of Technology and the F. W. Olin Foundation. While the first potential weakness indicated by Johnson—separation of the organization from the environment that it worked in—doesn't seem to apply in this case. Both the foundation and the university were involved in the same environment, in this instance higher education. To be clear, they were on the opposite sides of the issue of funding in higher education, and both represented the extremes of the funding issue in 1997. Florida Institute of Technology was desperate for the grant from the F. W. Olin Foundation, both to modernize its facilities so as to attract new faculty and tuition fee-paying students and to keep from further entering a spiral of decline. The F. W. Olin Foundation, on the other hand, was seeking a way to

liquidate its quite extensive capital, approximately $500 million, in one large final grant to create a lasting legacy to the ideas of the foundation and to satisfy at least some of the educational ideas of its current board members. While Florida Institute of Technology operated in an environment where seeking grants and external funding sources was commonplace, the F. W. Olin Foundation existed in the very same environment as the source of those grants and external funding sources.

The second weakness indicated by Johnson (1995) does seem to hold more weight in this particular case study. While it was Florida Institute of Technology that earned the grant from the F. W. Olin Foundation, available evidence from all sources say it was the role of two individuals, Dr. Lynn Weaver and especially Jack Hartley, that ensured the F. W. Olin Foundation agreed to provide the $50 million grant. From the 2002 proposal for additional funds, it was the continued persistence of Dr. Weaver along with the incoming administration of Dr. Anthony Catanese that ensured the second tranche of funding was secured. Here, it was not the institution itself that "earned" the grant, but the very individuals who personally negotiated with the foundations' four board members, including wining and dining them on numerous occasions, as well as developing personal working relationships and even friendships with two of the foundation board members to give them an advantage in negotiating for the grant. As Johnson noted, it is difficult to separate out the individual actions of Weaver and Hartley at the personal level and at the organizational level. Do personal, off-the-record or private conversations between Hartley and Milas constitute an organizational contact or an individual contact that influenced the outcome of the grant?

Johnson's third and fourth points also have some relevance in this case. As Johnson (1995) noted, where does a researcher place their focus: on the organization itself, the

relationships of the organization to those dependent on it, or on the amount and nature of the resources of the organization? In this case, all three seem to apply as potential caveats, but I have chosen to focus on the later two aspects: the relationship between the F. W. Olin Foundation and Florida Institute of Technology as well as the substantial amount of resources that the foundation offered in its grant. These funds cannot be overlooked, for even at the lower amount of $50 million, they proved transformational to Florida Institute of Technology in several ways, not just in the physical structure of the university itself.

The fourth of Johnson's criticisms of RDT also applies in this case, because the focus is largely on materialistic issues. Yet there was an ideological component to all of this, including the potential for Florida Institute of Technology to use the matching funds to become a model of 21st century engineering education. It is hard to judge using any available metrics on how ideologically transformed the university was in regards to educating engineering students. Did the hiring of elite new faculty with larger budgetary research support lead to an educational transformation or to simply bringing in new students? Did the development of 21st century laboratory spaces and classrooms encourage experimentation with new forms of teaching or did they simply welcome students with the promise of working into up-to-date buildings that would improve their careers? The university improved and increased not only the number of faculty and students but also the quality of its research as made evident through increased academic citations and steadily improving reputation for the university. Thomson Reuters (2013) perhaps best illustrated the culmination of the "transformation" that began in 1997 when Florida Institute of Technology was ranked 197 in the 2013 Times Higher Education World University Rankings largely based on the strength of the university's faculty academic output.

Yet perhaps it is the work of Froelich (1999) that best helps us examine how RDT theory can be used to examine the relationship between the F. W. Olin Foundation and Florida Institute of Technology. As discussed in Chapter 2, Froelich examined the resource dependence of non-profit organizations, primarily charities, pointing out that non-profit organizations, which including many colleges and universities, pursue traditional fund-raising opportunities from individuals and corporations to operate. This typically involved securing grants and stipulates that organizations are dependent on these resources despite the very nature that these revenue sources are never adequate, stable or available (p. 247). Froelich also noted that as these non-profits become more reliant on corporate sources of funding, they in turn, start to resemble for-profit corporations (p. 253).

In the case of Florida Institute of Technology, Froelich's research seems to indicate that the university first entered into this cycle with the F. W. Olin Foundation grant. The grant of $50 million by the foundation showed the university administration what was possible with access to large grants, but also what could be achieved through the creation and support of a rigorous development office. New buildings and new faculty could lure in more students, which meant more revenue for the university, to continue this cycle of new buildings and more faculty to attract more students, etc. Yet as Froelich indicated, it is the presence of corporate and individual sources of external funding that are necessary to raise the large sums demanded in higher education capital campaigns. Take for example, the university's $25 million Campaign for a Rising Star as part of the F. W. Olin Foundation grant. The university began to invest heavily into its development office as well as accept a business leader of a Fortune 500 company as the chairman of its board of trustees. Here, in 1997, as Froelich predicted, the university was already

starting to resemble a for-profit corporation. With the F. W. Olin Corporation effectively out of the picture as a potential revenue source, the university continued its close relationship with the Harris Corporation while securing new sources of revenue with other corporate partners such as BISK Education. As mentioned earlier, the university went so as far as to adopt a much more corporate table of organization in 2011, unlike a traditional organizational chart used in higher education institutions.

Froelich (1999) indicated that the process is even more complex when it comes to independent foundational grants provided by organizations like the Ford or Carnegie foundations. Froelich noted that the grants are often particularly large, exceeding $1 million, usually provide a multiple year funding stream, and offer the recipient the prestige of being awarded a highly publicized grant. According to Froelich these grants often require the recipient to provide matching funds or additional sponsors, but they rarely allow an organization to follow its own agenda with the funds; additionally, in the worst cases, the grants provide only seed money for new programs or research and lack any form of long-term commitment.

While this was not entirely true with the grant from the F. W. Olin Foundation, it does follow Froelich's example in that the grant was particularly large at $50 million dollars, was multi-year (five years in the case of the original grant), and required the recipient to provide matching funds. However, Froelich's conclusion that a university would not be allowed to follow its own agenda with the funds provided is not reflected in Florida Institute of Technology's case. The university, apparently, was allowed to use the funding and their matching funds not only for new faculty hires and support of research but also for money that directly supported the university's endowment, in other words, putting money aside for the rainy day. Perhaps it was a

unique set of circumstances that allowed Florida Institute of Technology to not only receive funding for the construction of new buildings, the traditional remit of the F. W. Olin Foundation, but also to use a matching grant for its own institutional purposes. In a sense, this commitment to allow grant funds to be used for the university's endowment may be a form of long-term support not usually found in Froelich's research. Nevertheless, the relationship between the F. W. Olin Foundation and Florida Institute of Technology may simply be nothing more than a unique case, the outlier to Froelich's otherwise sound observations.

Summary

This chapter looked at the conceptual framework in light of the completed research. My conclusions have been discussed in the context of resource dependence theory and its role in understanding the complex grantor-grantee relationship that existed between the F.W. Olin Foundation and Florida Institute of Technology.

CHAPTER SIX: SUMMARY, DISCUSSIONS AND FINDINGS

Introduction

This chapter will include a discussion about the large issues of corporatization, commodification and commercialization in higher education and then will examine Florida Institute of Technology as an example of the corporatization in higher education, an outcome that was not predicted when the research began. The question of "did it work?" will be answered in relation to the outcomes of the F. W. Olin Foundation grants and Florida Institute of Technology. I then will discuss the results of the study in reference to the overall case study as well as an overview of the limitations of the study. Finally, this section will conclude with recommendations for future research and a summary of the chapter.

Commercialization, Commodification, and Corporatization in Higher Education

In the 21st century, higher education is becoming more commercialized, commodified, and corporatized. While these issues have become central to the debate over the direction of higher education in the 21st century, they have longer histories that originate with the rise of the modern research university at the end of the 19th century. Fink (2008) notes that Thorstein Veblen was among the first scholars to criticize business influence on college campuses in his 1918 work, *Higher Learning in America*. According to Fink, Veblen feared "the growth of a focus on output, crude utilitarianism, and the inter-institutional scramble for prestige, competitive advantage and power" (Fink, 2008, p. 229-230). The great socialist author and politician Upton Sinclair brought the issues raised by Veblen to a wider audience when he

publicly decried these ongoing challenges to the independence of colleges and universities in the 1920s (Fink, 2008, p. 229-230). While the issues disappeared into the background during the 1930s and 1940s, beginning in the early 1950s, concerns about the growth of the corporate university were raised once more by scholars and critics of these changes to university administration and culture.

Today, the issues of commercialization, commodification, and corporatization, loom larger than ever. Steck (2003), unlike Veblen and Sinclair, traced the origins of these current fears about the rise of the corporate university to the growth of higher education after World War II. Steck (2003) stated that a rampant growth of corporatization was driven by wartime demands for more college-educated officers, scientists and engineers, and by the surge in student enrollments after the war, funded by the GI Bill. These surges in student enrollments meant that there was a need for specialized financial and bureaucratic managers on college campuses to handle the demands of larger student bodies on America's college and university campuses (Steck, 2003, p. 68). These new administrators, often drawn from outside the halls of academia, demanded a more corporate model for college and university governance. This demand was pushed even more strongly by the twin issues of the 1970s financial crises that imposed harsh fiscal realities on colleges and universities, and by a growing sense that American higher education needed to compete in a global marketplace (Steck, 2003, p. 68).

Colleges and universities found themselves in the 1970s and 1980s restricted by budgetary constraints, at the same time they felt the need to expand and compete in a much larger marketplace. Steck (2003) and Fink (2008) traced these budgetary constraints to the cuts in state and federal funding for higher education by the Reagan administration during the 1980s.

A decade later, the rise of information technology aided the transformation of higher education, allowing for universities to more rapidly transform into corporatized, commercialized, and/or commoditized enterprises. Martin and Peim (2011) went one step further than both Steck and Fink, indicating that the World Trade Organization added to the demands that colleges and universities corporatize, commercialize and commodify their operations by pressing for the global liberalization of all service industries, lumping higher education into this category of a simple "service industry" (p. 130). The definitions of the terms "corporatization," "commodification," and even "commercialization" are fluid depending on the context that an individual scholar employs in their research.

These three terms have become hot button topics in higher education research in the 21st century. As universities grew in size during the 1990s and 2000s, growth demanded more centralized administrative structures to handle large student enrollments and shrinking external sources of revenue. As colleges and universities hired even more administrators, they started to look more and more like the modern corporation as they struggled to grow, increase revenues and maintain their enrollments. Yet the academic debate over the true meaning of these three terms—corporatization, commercialization, and commodification—began in earnest and is still ongoing. For example, a debate among academic scholars has developed over whether there was any real evidence that commodification in higher education was actually occurring. Martin and Peim (2011) noted that the a decade earlier Frank Coffield had asked where the evidence was:

> Despite [the] growing body of empirical research about the adverse effects of market forces in education, … [some] believe that learning opportunities should be marketed and sold ... Learning however, is not a commodity like baked beans, which can be 'branded', 'marketed' and 'delivered' to 'customers'. It is a transaction which takes place between teacher and learner, where learners are guided through interaction with a more skilled partner to use the intellectual tools of their society. Moreover, whether learning can be

> marketed and what effects markets have on 'customers' are empirical questions which make the disregard for evidence all the more reprehensible' (quoted in Martin and Peim, 2011, p. 128).

For Martin and Peim (2011), the lack of empirical evidence by many scholars to back up their claims of increased corporatization, commercialization and commodification in American higher education was troubling. They claimed this lack of empirical evidence left the debate in the hands of polemical essayists rather than constructive arguments, supported by solid scholarship, discussing to what extent these three trends are actually impacting higher education

The issue of commercialization in higher education, in particular, came to the forefront when Derek Bok (2003), the former president of Harvard University, discussed the growth of athletics and the erosion of academic integrity in research as two of the major problems with American higher education. Geiger (2004), commenting on Bok's assertions, firmly believed that the growing commercialization of academic research was the larger of the two problems. Of course commercialization in higher education, Bok (2003) pointed out, was not something new, but the scale increased in the late 20th century, including the pursuit by college and university administrators of different avenues for financial growth to offset the loss of state and federal funding. Bok (2003) criticized leftist opponents of commercialization. Bok (2003) stated that these leftist critics were arguing that commercialization was simply another attempt to commodify education, or that it reduced the faculty to the status of employees, or that commercialization was another attempt in a long line of attempts to make colleges and universities serve the interests of corporate America (p. 6-8). Bok's arguments highlight the complexities of this issue—does commercialization improve or devalue the institution?

The term "corporatization," according to Clay (2008) has come under the most scrutiny and the definitions, while sharing similarities, often cover a spectrum of activities undertaken by colleges and universities. For example, Steck (2003) defined the "corporatized university" as:

> (A)n institution that is characterized by processes, decisional criteria, expectations, organizational culture, and operating practices that are taken from, and have their origins in, the modem business corporation . . . by the entry of the university into marketplace relationships and by the use of market strategies in university decision-making (p. 74).

He acknowledges that "institutions will vary, of course, one from the other in the extent that they display corporatizing elements" and other scholarship has examined the ways that universities reflect Steck's characteristics in their organization and institutional practices (Steck, 2003, p. 74). Andrews (2006) clearly identified what he believed was one of the major steps towards the corporatization of higher education in the 21st century: the domination of institutional governing boards by successful business leaders who wanted to apply free market business practices to higher education (p. 17). Lerner (2008) defined corporatization in more concrete rather than ideological concerns, focusing on "the erosion of tenure by attrition and the rise of contingent faculty; the rise in tuition; the dramatic decrease in federal and state aid to universities and state colleges; and the outsourcing of campus bookstores and custodial work" (p. 219). Lerner (2008) that the erosion of tenure means that with fewer tenured faculty, there is less power and influence to be exerted by faculty against administrative policies that favor corporatization, commercialization and commodification (p. 220). For Lerner (2008), these concerns were all signs of trends pursued earlier in the corporate sphere: temporary workers; increased prices as a sign of increased "quality;" the belief by politicians and the American public that higher education was not delivering desirable results; and efforts to outsource non-core functions in an effort to minimize costs.

Nelson (2010) supported Lerner (2008) but expanded the argument to the larger effects of these practices, saying that that one of the major signs of the corporatization of higher education "is a rise in a separate class of career administrators and that their sheer numbers has helped fuel the belief that faculty are not full partners in the educational enterprise, but rather resources to be controlled and managed" (p. 56). For Nelson (2010), this change struck at the nature of higher education collegiality, where administrators were drawn from the faculty before returning to their former positions, which had for so long been the assumed model of how to run an college or university. Now the "faculty as temporary administrator", according to Nelson (2010), was being replaced by career administrators who had very little concept of, or concern for, educational issues.

Neem et al. (2012) took Nelson's (2010) criticisms and made them concrete when they looked at the specific case of the University of Virginia's board of trustees. Neem et al. (2012) characterized the board of trustees as acting "… like governing boards everywhere, composed almost entirely of business people—real estate developers, hedge fund managers and corporate lawyers—(are) intent on running the university as though it were a for-profit corporation" (p. 15). While many scholars would agree with Neem et al. in their negative depiction of university governance in the 21st century, there are scholars like Sidorkin (2012) who countered Nelson's claim by stating that Nelson's own definition could be spun more positively: "(the) university administration has finally started to become a real profession, requiring a set of specialized skills and knowledge, distinct from those of faculty members" (p. 491). Steck's (2003) earlier work also supported Sidorkin's (2012) conclusion that corporatization might not be an entirely negative process and might carry positive benefits for higher education. Steck (2003),

specifically noted that for many academic administrators, and some faculty, corporatization is viewed as:

> A perfectly legitimate, necessary, desirable and positive good thing. The corporate sector is a seen as a credible partner, as an appropriate source of revenue, as a proper market to sell university goods, and as good people that one can do business with (p. 75).

While these scholars argued over whether corporatization might actually be something beneficial to American higher education, other scholars continued their ideological attacks on corporatization, commercialization and commodfication.

Sidorkin (2012) helped to lay the groundwork for understanding these continuing attacks by academic scholars on corporatization and commercialization. Sidorkin (2012) examined and reviewed three primary texts: Frank Donoghue's *The Last Professors: The Corporate University and the Fate of the Humanities,* Cary Nelson's *No University is an Island: Saving Academic Freedom,* and Jennifer Washburn's *University Inc.: The Corporate Corruption of Higher Education.* Sidorkin (2012), summarized Nelson's examination of the issues of academic freedom, shared governance and tenure, placing them in a historical perspective and as part of the general 21st struggle for academic freedom and tenure rights (p. 488). Donoghue, according to Sidorkin (2012), looked at the decline of the humanities in higher education, placing the blame for a decline in the study of the classics directly on the growth of corporate culture in higher education, which values "practical" fields of study in the sciences, engineering and business over the liberal arts and social sciences (p. 488). Washburn, on the other hand, examined the growth of corporate sponsored research and the problems that occur when colleges and universities become entwined in commercial activities rather than their primary focus on providing an

education for students and/or conducting research for the sake of scientific discovery (Sidorkin, 2012, p. 488).

Sidorkin (2012) noted that all three texts assess how and way higher education is changing, yet with varying approaches to the issues of corporatization, commercialization and commodification. According to Sidorkin (2012), what unifies these three scholars are their conclusions that indicate that higher education is moving towards the "massification of higher education" (p. 497). In other words, the role of the modern American college and university is to educate the general public, the masses, not just the children of the elite. For Sidorkin (2012) the real issue behind the three trends of corporatization, commercialization and commodification is this opening of higher education to all Americans (p. 497). Sidorkin (2012) believed that the only way to provide this education to the masses was to bring down the cost of higher education and yet somehow not reduce the quality of that very same education.

This comes to the heart of the debate over corporatization, commercialization and commodification: can you serve more students without reducing the quality of their educational experience? Sidorkin (2012) reasoned that in an era in which state and federal funding to higher education is cut, but ever more students are attending college and university, the only way to meet this demand was for higher education to adopt and provide a more corporate, commercialized and/or commodified experience. Rapid student enrollments could provide more tuition dollars to offset decreased external funding, and these new students became "commodities" for each institution to pursue. These new students, wanting a college education but unable to attend traditional colleges and universities, led to the emergence of for-profit universities. In some cases, commercial education ventures associated with more traditional

schools are established to try to cater to these new and often non-traditional students (Sidorkin, 2012, p. 498). These students, especially non-traditional students, are seen as new sources of revenue by all of higher education. Yet they come with sets of demands and expectations about what they want from higher education that are often different from the traditional 18-22 year old college student.

Nelson (2010) feared that in the process of trying to compete with for-profit universities, that there was a general race to the bottom of educational achievement across the board in American higher education. For Nelson (2010) and others looking at this growth of competition, the need to cater to the masses of students often meant replacing classroom instruction with online programs or courses provided through other forms of new instruction. Neem et al. (2012) offered up an example of what they believed was this race to the bottom which can be seen in the structure of a private, non-profit university, the Western Governors University (WGU), set up in 1997. Neem et al. (2012) noted that the university is unique in that it has no traditional faculty, relying on self-teaching through online courses, along with course mentors to assist students through the program (p. 15). WGU's faculty do not design their own courses, instead they rely on for-profit commercial vendors like Pearson and McGraw-Hill for the course content used by the university (Neem et al., p. 15). Neem et al. (2012) noted that this fit into the expanding process of commodification by reducing learning to the lowest common denominator: standardized products that computers and graders can assess quickly and easily (p. 16). Here, according to Neem et al. (2012) was a model of the accredited 21st century university that had adopted the all the hallmarks of corporatization, commercialization and commodification.

Western Governors University may not be a unique case in the 21st century. Colleges and universities have been forced by competition to adopt some of the methods used by their for-profit competition. Yet, increasingly, even once elite colleges are finding that they are forced to employ the methods of for-profit schools to attract and keep students until graduation. Twitchell (2004), a professor at the University of Florida, was more than a little ambivalent about the growth of commodification of the university experience. He quickly echoed other scholars by noting that "undergrad education has been dumbed down to provide consumer satisfaction" (Twitchell, 2004, p. 48). He described the University of Florida campus, comparing the student union to a department store that provided many of the same functions as the local mall and noting that the football stadium, with its extremely expensive sky-boxes, generated pure profit for the university (Twitchell, 2004, p. 49). Twitchell summed up his feelings about the University of Florida being transformed by the larger processes of commodification, commercialization, and corporatizations:

> What used to be the knowledge business has become the business of selling an experience, an affiliation, a commodity that can be manufactured, packaged, bought and sold. Don't misunderstand. The intellectual work of the universities is still ongoing and has never been stronger. Great creative acts still occur and discoveries are made. But the *experience* of higher education, all the accessories, the amenities, the aura, has been commercialized, outsources, franchised and *branded*. The professional manager has replaced the professor as the central figure in delivering the goods (Twitchell, 2004, p. 50).

Twitchell (2004), however, while agreeing in principle with many of the authors listed above, went a bit further, arguing that even the elite universities and colleges in America are "no longer in the traditional education business; they are in the sponsored research and edutainment business" (p. 50). Twitchell (2004) stated that "edutainment" was becoming a huge cost on campus, as students were catered to with new dormitories, food services and all the hallmarks of

21st century America society. Thus colleges and universities had become both places to be educated, but also to be entertained. Students were treated as customers, but one in which the customer was always right. His ambivalence becomes apparent as he attempts to note that commercialization does provide some benefits: "wider access, the dismantling of discriminatory practices, increased breadth and sophistication in many fields of research, and an intense, often refreshing concern about customer relations" (Twitchell, 2004, p. 58). Twitchell's conclusion thus reflects the larger problem with academic criticisms of corporatization, commercialization, and commodification: they do bring benefits to administrators, students and even faculty, but do the costs outweigh the benefits. For scholars like Twitchell (2004), the answer is not so clearcut, and these three trends may bring both benefits and costs to higher education.

If students are being treated like customers, as Twitchell (2004) argued, than their concerns about the money they are spending on tuition are valid ones. The student-as-customer is therefore less concerned about the quality of the education they are getting, but more on whether they will find a job when they leave the university to pay back their student loans and justify their time out of the workplace. Boyles (2011) relayed what he thought was the central problem with higher education in the 21st century: the introduction of a reductionist and utilitarian understanding of higher-education best summed up by a question raised by one of his graduate students—"Am I going to get my money's worth?"—for a graduate philosophy course he was teaching (p. 219-220). Both Bok (2003) and Martin and Peim (2011) noted that this sentiment came from an increased emphasis on employability of graduates over the perceived value of the education they received. The students, influenced by both media and politicians, came to believe that a college education's only purpose was to provide them with the means to secure a good job.

Fink (2008) went further than Bok (2003) saying that this shift in public perceptions about the value of higher education was not so much about commercial ventures on college campuses, but a growing public belief that students must be job ready upon graduation and that in the 21st century, American colleges and universities were failing all too many students on this measure (Fink, 2008, p. 230).

For Fink, this demand to prepare students for practical careers has led to a move away from the true role of the university, one based in its historical roots: the preparation of students for their roles as national citizens (Fink, 2008, p. 231). By moving away from what Fink (2008) described as the training of national citizens, Fink echoed earlier comments by Steck (2003) on the changing role of higher education. Steck said that university faculty and outsider observers have watched:

> In dismay as the humanities (and the general liberal arts) are downgraded; as presidents hustle their campuses and pressure their faculty to increase external funding; as campus offices of technology licensing sprout on campuses; as research is seen as a source of revenue, not knowledge; and as universities develop online, for-profit services (Steck, 2003, p. 70).

Neem et al. (2012) noted that this move away from the humanities and social sciences in the last decade has led to increased interest by administrators into the science, technology, engineering and mathematics (STEM) fields of study. These STEM fields are perceived by the public, politicians, and university administrators as being the preferred future career path for many of their graduates. The students, according to Fink (2008) and Neem et al. (2012), see their education as simply transaction, in which they receive a product for payment (i.e. tuition). This in turn leads students to believe their education should only have a practical output, and a specific course is valuable only if it improves their chances at finding a high paying job upon

graduation. Neem et al. (2012) note that this shift towards STEM is also driven by federal research grants encouraging researchers to build programs to take advantage of these grants. Students understand that a STEM major may result in a starting salary far higher than those for their fellow students who choose to major in the humanities and social sciences. Neem et al. go on to state that

> Universities compete for faculty in STEM with the assumption that it is these faculty who are able to win grants and contracts, publish in the narrow range of high-status, world-class journals and contribute to the creation of intellectual property and startups. They also compete for faculty in professional fields such as medicine and law, where graduates are likely to become wealthy and perhaps become university donors (Neem et. al, 2012, p. 18).

Boyles summed up this increased reliance on federal government funding for STEM education and research by stating that "higher education lives under a grant culture focused on securing more and more grants" (Boyles, 2011, p. 224). Andrews (2006) noted that this in turn has resulted in the creation of a faculty reward system which is skewed in the favor of externally funded research, and de-emphasizes the value of unfunded research, teaching and service (p. 18). Thus STEM fields, which are well-funded by the federal government and corporations, are seen as valuable, and the humanities and social sciences, which are rarely funded, are seen as less valuable by students, parents, politicians and university administrators.

Perhaps the central issue in the debate about the effects of corporatization, commercialization and commodification on higher education institutions is the question of value, especially the value of a modern education. Thomas and Hunsaker (2014) discuss what they call the "value chain" of higher education, saying that the value does not come from content delivery, but from student recruitment, student support, content delivery and knowledge creation (p. 66).

In many cases administrators have a different set of values and a competing idea about what constitutes "value" in higher education. Many administrators continue to believe that content can and must be commoditized, forgetting that content is more than delivery, but also creation and dissemination (p. 67). Echoing other scholars (Steck, 2003; Fink 2008; Neem et al. 2012), Thomas and Hunsaker (2014) stated the colleges and universities offer value not only through their classroom experience, but through their entire chain of offerings (p. 67). They point out, that this chain of value cannot be easily packaged nor replicated through electronic means, and it is the entire chain that savvy students are purchasing, not just the immediate content delivery (Thomas & Hunsaker, 2014, p. 67).

Value can come from corporatizing aspects of the university's administrative functions, as American corporations have long shown how to trim expenses and still maximize their ouput. Commercialization, as long as it does not impact student learning or research, can provide additional avenues of revenue for universities in an era of reduced government support and funding. Even producing some degree of commodification can help higher education more easily demonstrate that they are providing a valuable "product" to both their students and the taxpayer. Yet administrators need to allow faculty some degree of input into any corporatization, commercialization and/or commodification to prevent the excesses produced by these processes. The value chain of higher education, as offered by Thomas and Hunsaker (2014) provides a framework to evaluate how further implementation of corporatization, commercialization and commodification may impact the core mission of higher education: producing an educated and productive citizenry for the 21st century.

Florida Institute of Technology: An Example of the Corporatization of Higher Education

The American Federation of Teachers (2006) argued that college and university administrators are becoming corporatized as they

> See the education mission as just one aspect of a multi-faceted 'business' in which the institution is engaged, which may include job training, entertainment, sports, housing, health care, and private and corporate research and development. Under the guise of efficiency and confidentiality, top administrators are being recruited by professional search firms with a diminished faculty role in their selection. The voice of faculty and staff is relegated to an advisory role rather than that of a full partner in the institution's success (p. 5).

In this statement by the AFT lies an example of how Florida Institute of Technology was changed by the acceptance of the F. W. Olin Foundation grants. The process of becoming a modern corporatized university, I believe, was not anticipated by either Dr. Weaver or Jack Hartley when they accepted the Olin foundation money in 1997. Yet the results more than 15 years later are hard not to see about the university.

While this subject was not part of the original literature review when the research began, the F. W. Olin Foundation's involvement with Florida Institute of Technology change the university's governance and structure, reflecting the corporatization of higher education. Florida Institute of Technology is a tier 1, research-intensive university that prides itself on being one of the top engineering and scientific universities in the United States, and, more recently, in the world. As a private university, Florida Institute of Technology should be able to resist many of the trends that have been occurring in public education, including the demands that a college or university "turn a profit." At academic institutions, especially public-funded colleges and universities, this profit-oriented verbiage still causes umbrage with faculty, staff, and some of the public. It has been watered down to a more publicly palatable demand that the college or

university at least provide "value for tuition dollars" spent by the state and the student as well as showing some proof or accountability that they have done so. This has meant that areas of study perceived by government officials and the public as providing less overall perceived return for dollars spent (such as the Humanities or the Liberal Arts) receive less funding than areas of study perceived to be "more valuable" such as the STEM subject areas. When it comes to funding and even something as basic as respect by college and university administration, the liberal arts and soft sciences lose to the push to be more STEM inclusive.

Florida Institute of Technology is, at its heart, a STEM institution. The university was founded in 1958 as the Brevard Engineering College to provide NASA engineers and scientists stationed at Cape Canaveral (later to become Kennedy Space Center) with continuing education opportunities. From its very establishment, the university has had close ties with local business, providing its employees with educational opportunities, and later, to provide businesses with a pool of trained STEM majors to work in their corporations. However, while major local corporations were involved in the university from the start, the university still remained an academic institution with a focus on research and scholarship as well as teaching and community engagement. Starting in the late 1990s, once the F. W. Olin Foundation grant was secured, the university moved along a pathway that has plagued much of higher education in the late 20th and 21st centuries: become ever more beholden to the corporations and foundations that provide them with the financial means to not only conduct research but also to keep their doors open and attract better faculty and more students to the college or university campus.

For Florida Institute of Technology, the first significant step in this road towards corporatization came with the appointment of Jack Hartley as chairman of the university's board

of trustees to secure the F. W. Olin Foundation grant. In this case, a private foundation decided to dictate the governance of a university to ensure that its injection of cash was handled "responsibly" by a corporate official of a Fortune 500 firm. While the result turned out well, it began to undermine the independence of the institution from outside corporate influences. The massive cash influence from the F. W. Olin Foundation convinced the university that outside money was available and could turn the university into a world class institution as envisioned by both Dr. Weaver and Dr. Catanese.

In 2001, the university board of trustees decided to hire a new president for the retiring Dr. Lynn Weaver. One of the conditions of this new president was that he/she be willing to undertaken extensive fund-raising and have a track record of successfully doing so for an academic institution. Dr. Catanese, the current university president, admitted that he was primarily chosen to be the classic external president, one focused on fund raising for the university. He remarked that:

> I am a great leader, but my real success has been in university fundraising. (So) the first thing we did here was to start a $50 million capital campaign, and now (2013) we are in a $100 million capital campaign. So no doubt about it in my mind, I mean of the many qualified candidates, what they saw in me was the fundraising capabilities and interest (TR 2, p. 9-10).

The university would raise nearly $60 million when the first capital campaign ended in 2009 and there is no doubt among the university administration that the university community will raise the $100 million it is currently pursuing.

While the role of the F. W. Olin Foundation's money in transforming the university is discussed earlier, the unspoken role of the Harris Corporation since then is a potential area for future research, but one fraught with more potential dangers for any researcher connected to

Florida Institute of Technology because the corporation is so intimately tied to the university at this current point in both institutions' histories. The Harris Corporation provided funding for the creation of the Harris Center for Science and Engineering in 2007, as well as the Harris Institute of Information Assurance within the center. These endeavors are seen as continuing the university's long partnership with a local corporate sponsor, but they do further shift the emphasis away from teaching and more towards commercially profitable research.

The university also partnered with BISK Education to create new online undergraduate and graduate degree programs, especially at the master's degree level for business programs. The establishment in 2006 of a relationship between BISK Education, based in Tampa, Florida, a for-profit firm and the not-for-profit private university may also be open for future discussion, though the terms of the 20-year deal are not public knowledge. Criticism of the relationship resulted in the newly hired Dean of the College of Business being dismissed over his criticism of the administration's decision in 2007. What is publicly known is that Nathan Bisk, president and CEO of BISK Education, sits on the university board of trustees, as well as having the university's College of Business named after him. A private company therefore seems to have a say in the direction of how the university's online degree granting presence is publicly portrayed and run, all in an effort to seek a new revenue stream for the university's finances. As the American Federation of Teachers (2006) predicted, one of the growing ways for corporatization to spread was through "outsourcing jobs essential to instruction" and the "buying and selling of courseware for commercial exploitation" (p. 5) Here, the university's relationship with BISK Education seemingly fits that specific criticism raised by the AFT in 2006.

As the corporatization of education has occurred over the last twenty years, there has been a jump in the numbers of university administrators, many with new titles and support staff. The idea of the research and teaching oriented faculty member who shifts briefly to an administrative role is becoming an anachronism. Mills (2012) notes that while students and faculty increased proportionally over the last decade, administrators and support staff have increased astronomically, with the later increasing by over 240%. That has, in part, led to increasing policy decisions being made without any faculty input into decisions that effect life inside and outside the classroom. Part of this is seen in the rise administrators who now would equally feel at home in a corporate world and an academic institution. These administrators are interchangeable with their for-profit corporate counterparts, in a world where university presidents are now being called Chief Executive Officers, or those in other administrative positions adopt a plethora of corporate titles such as Chief Operating Officer, Chief Financial Officer, or the explosion of lower ranked vice presidents, such as Senior Vice Presidents for Development. For Florida Institute of Technology, a study of its current organizational chart shows how quickly those terms have spread throughout the university administrative hierarchy.

Bok (2003), the former president of Harvard University, noted that none of this was new, only the scale of modern corporatization in higher education. Part of this was the decline of the idea of shared governance, where faculty oversee the long term institutional direction while short term administrators come and go but make important decisions. According to the American Federation of Teachers (2006), shared governance came under attack as the public came to see colleges and universities as avenues for political and commercial gain. They went on to argue that today's college president is more interested in political and economic concerns while having

little interest in academic missions of the institution they lead (p. 4). Here, it can be argued, the demand for new revenue streams leads to the pursuit of funding from almost any source. When the donation is secured, it is often attached with strings for a new institute or program. The university begins "expanding" its core mission to construct these new buildings or fund research institutes that may ultimately necessitate cost cutting elsewhere to sustain these new endeavors. To fulfill these expanded opportunities often requires more administrators and staff, while faculty are simply shifted about. Their replacements on the academic side of the equation are adjuncts teaching in the classroom or the entire teaching environment is shifted to online courses.

As noted in this section, the growing corporatization of the university that arose from its acceptance of the grants from the F. W. Olin Foundation was unexpected. It is a potential avenue for future research, but it is also potentially problematic for any researcher who also happens to be an employee of the university.

Did it Work?

Perhaps one of the best questions to ask is did the F. W. Olin Foundation grants work? The answer is a qualified yes. The two grants, and the money that Florida Institute of Technology did manage to raise as part of the matching portion of the grant, allowed the school to not only survive, but also to expand in the 21st century. The changes were more than just physical. There were changes in institutional culture, especially with the arrival of Dr. Anthony Catanese as the new university president in 2002. The university became more focused on acquiring outside funding, and the university's development office grew in importance as Florida Institute of Technology almost immediately began a new fundraising campaign. Relations grew

closer with local corporations, especially with the Harris Corporation, which was encouraged to donate significant sums to the university, not only in equipment, scholarships, but also in the construction of another new building on campus.

The following two images show the transformation of the campus of Florida Institute of Technology that took place with the two F. W. Olin Foundation grants. The tall white building towards the upper center of the first picture is the Crawford Science Tower, and is a reference point in the second, with the three F. W. Olin buildings to the right of the second picture.

Figure 1: Florida Institute of Technology Campus, 1980s

Photograph used with permission by Dr. Gordon Patterson, Florida Institute of Technology, 2014.

Figure 2: Florida Institute of Technology Campus, 2014

Reverdiau, G. (Photographer), & Florida Institute of Technology**.** (2014). *Overhead view of Florida Institute of Technology*. Retrieved from http://timeline.fit.edu/

The university, in many ways, went from a sleepy small Southern private engineering and science college to a major research university. The administration publicly stated that they wanted Florida Institute of Technology to be one of the top ten research universities in the world. The F. W. Olin Foundation grants also allowed the university to pursue new faculty, promising them strong financial support for their research, above market salaries, but with the understanding that these faculty would bring along their own grants or pursue new funding opportunities. The lure of working in brand new, state-of-the-art research laboratories and

facilities had to be an attractive incentive to choose Florida Institute of Technology over other employment opportunities.

These new scholars and their cutting edge research and high profile status would attract more tuition paying students interested in the research opportunities provided. The university embarked on the promise that every student would be involved in original research during their time at the university. More students meant more dollars, but to continue to attract students required the university to spend more money that it received from tuition funds. This meant that the university would pursue larger sources of external funding to continue the reputation that the university had developed with aid of the F. W. Olin Foundation's funding. But as explored earlier in the chapter, this led to the university becoming more corporatized and its research more commercialized, though the degree of commodification is arguable.

The administration certainly grew in size, as more money meant more need for financial and business experts to oversee revenues. They also became more corporatized, with a top down administrative structure put in place to go along with the increasing use of corporate titles. The faculty, non-tenured but with multiple year contracts, did not gain any more say in the governance of the university. The university administration did attempt to measure faculty output through a variety of means, and as critics of corporatization have noted, there is an increased emphasis on external research support and grants as a measure of "faculty productivity." Students have also benefited from the change, at least initially, as they had access to world-class science and engineering facilities in brand new buildings. They also had new student services facilities constructed to attract make their experience at the university easier. In many ways, the

university began to develop the institutional framework and infrastructure seen at other universities, though the long-term costs are not fully understood.

As discussed by Andrews (2006), providing a checklist of potential indicators of a university's degree of corporatization, Florida Institute of Technology has become more corporatized. Since the university does not have a tenure system, tenured faculty have not been replaced by non-tenured faculty. Yet the university has seen a massive increase in low-paid adjunct faculty, especially for on-line instruction and in the service departments. The Nathan M. Bisk College of Business has pursued more for-profit activities, including short courses, workshops, certificate programs and other non-degree programs for local business enterprises. They are the primary focus on the university's online degree programs (Andrews, 2006, p. 19).

University administrators have not only grown in numbers and their pay packets have also increased to corporate levels (Andrews, 2006, p. 19). Finally, Andrews (2006) noted that one of the more troubling signs was an increased emphasis on intercollegiate athletics as a selling point for admissions and fund raising. Florida Institute of Technology, a NCAA Division II school, finally acquired a football team in 2010, playing their first games in 2013. The introduction of the football program has not only brought new students to the university, but an increasing emphasis for adminstrators, faculty and students on university athletics (Andrews, 2006, p. 19). The university's culture has certainly been changed since the awarding of the F. W. Olin Foundation grants in 1997.

Discussion of Results

One of the issues with undertaking a case study as qualitative research is the very fact that it is an examination of a single event or institution (in this case a pair of institutions) during a singular event or moment in history. Stake (1995) advised that there is a limitation that any particular case study may be so unique that the research outcomes may not be applicable to wider discussion of its implication on the field of study. However, if the basic purpose of this research was to add to the body of existing knowledge on the relationship between higher education and foundations, it is hard to argue that the example provided by Florida Institute of Technology and the F. W. Olin Foundation does not add a unique example to the wider body of extant literature. While it could be considered an outlier for several reasons, including the sheer size of the grant and the subsequent dissolution of the foundation, such an example has lessons that can be added to the larger picture of the often complex and occasionally difficult relationships between higher education institutions and foundations.

In this case, the two grants given by the F. W. Olin Foundation to Florida Institute of Technology were part of a larger long-term strategy pursued by a foundation seeking to fundamentally alter the means by which engineering was taught at American universities and colleges. Yet in this particular case, the foundation had already decided to shut its doors and yet it continued to fund its grantee for years beyond the formal decision to dissolve and close the foundation. Florida Institute of Technology was the last university to be funded by the F. W. Olin Foundation. The amount pledged as a grant to the university, approximately $64 million, was more than it had given out to any other institution and approximately 1/5th of the total amount of funds given out to American colleges and universities over its more than 40 years of

existence. This singular and unique situation suggests many ideas about the nature of the grantor-grantee relationship in higher education.

Florida Institute of Technology was a small engineering college, reliant of tuition dollars and with a virtually non-existent endowment. In some ways, despite being a private engineering college, the university was like many small liberal arts colleges in the United States. In 1997, the university was perhaps faltering, with little new sources of revenue apparent and even its chairman of the university's board of trustees believing that it would not survive more than a few years. In hindsight, it was amazing that the school had survived from 1958-1997, especially after a series of disastrous investments into expansion that had taken place in the 1980s. The university, in an attempt to escape its financial difficulties, then began to sell off potential assets, both moneymaking and money losing in an attempt to find an even financial keel.

As Jack Hartley mentioned, although the F. W. Olin Foundation's board thought that the university's very survival seemed a miracle, Florida Institute of Technology had survived. The university, according to Hartley, "had a school, had building, had students and we had paid our way for quite a while, but it was living year to year and with no endowment" (TR 3, p. 8). Nevertheless, the university was hoping that a large enough grant would transform the university into something that not only would survive but also thrive. Hartley, perhaps more so than even Dr. Weaver, the university president, was instrumental in securing the grant of $50 million dollars and convincing at least two of the four members of the F. W. Olin Foundation board to give the university a shot at an even a larger pool of money.

What has become apparent from the research is that if a university is to succeed with a large grant, it must not only cultivate connections with board members of the foundation but also

develop social and professional relationships outside of the confines of the institution with those same individuals. In the case of Florida Institute of Technology, both Lynn Weaver and Jack Hartley developed a working relationship with Lawrence Milas and William Norden but achieved a closer and more trusting relationship with William Schmidt and William Horn. They found a split in the board and worked that split to their advantage. But they also recognized that Milas was the true power on the F. W. Olin Foundation board and they did little to alienate a man who already had a plan that did not involve Florida Institute of Technology being the beneficiary of the foundation's final gift in motion.

Moreover, the tenacity of President Lynn Weaver cannot be underestimated. He refused to take no as an answer from the F. W. Olin Foundation, and he continued to pursue any relationship with the foundation even after receiving a small consolation gift in the early 1990s. Instead of seeing that as a gift, a sort of reward for even applying, he instead saw that money as the deposit down on a much larger sum. Weaver had also developed a close working relationship with Hartley and the two of them made a productive team. Weaver, whether he agreed with Lawrence Milas' belief that engineering education needed to be fundamentally transformed, nevertheless accepted that a change would have to take place if Florida Institute of Technology was to receive any money from the foundation. Hartley, the CEO of a Fortune 500 defense technology firm, has the business acumen and skill necessary to convince lawyers and corporate officials that made up the members of the F. W. Olin Foundation board that he was "one of them" and could be trusted overseeing their money. In fact, Hartley's insistence that with a sufficient amount of money the university could not only be saved from its downward spiral, but

actually grow and become something recognized nationwide convinced the F. W. Olin Foundation board that Florida Institute of Technology was a worthy recipient.

Weaver and Hartley's personal connections with both Horn and Schmidt helped the university avoid missteps when drafting their proposals for funds. Hartley pointed out that both gentlemen provided advice, including what to emphasize and what to downplay in their applications. What was amazing to learn from the research was how close the university had come to gaining not only $100 million, but that it was in the running until 1997 to become the Olin College of Engineering, instead of the newly constructed school in Massachusetts. Both Weaver and Hartley tried to convince the F. W. Olin Foundation board to invest in an existing school rather than starting from scratch. However their efforts ran counter to Milas' desire to invest in his alma mater, Babson College, by building the new college adjacent to Babson. Weaver and Hartley also had to contend with Milas' lingering doubts that investing the money in Florida Institute of Technology would not bring about the fundamental change he wanted to see undertaken.

Ultimately, when the F. W. Olin College of Engineering opened its doors to students, it was tuition-free and offered a radical new ideology for the education of engineering students in the 21st century. Yet eventually the school had to introduce tuition fees to all students and the current course of instruction quite similar to that offered by Florida Institute of Technology. While the F. W. Olin College of Engineering's buildings carry the name of F. W. Olin and the library is named after Lawrence Milas, the dream of a revolutionary new engineering college seems to have faded as the financial realities of running a private college in the 21st century have set in.

Limitations of the Study

There were several inherent limitations to this study that affected the final results and conclusions. The most obvious was the limitation of not being able to speak with any of the F. W. Olin Foundation board members or locate their archives. The process of tracking down the remaining members of the F. W. Olin Foundation started off well enough. Lawrence Milas retired to Longboat Key, Florida, and his home address was readily available online through links to the remnants of the F. W. Olin Foundation. Two sets of documents were sent to his home, the second registered mail with a return receipt requested. I received no response to the first mailing of documents and from the second I received only the signed postal receipt, but no envelope with questions. A final attempt in the spring of 2014 to contact Mr. Milas resulted in a threat to have the police contacted if I bothered him again.

I was also able to track down William Norden who is the chairman of the F. W. Olin College of Engineering's board of trustees, but I received no response to my inquiries for an interview or to a set of question sent care of the university. I sent a copy of the questions and a request for an interview to his New York law firm but again received no response to my inquiry. I sent another letter and a series of emails to the F. W. Olin College of Engineering President's Office to ask for their assistance but received no response. A series of phone calls resulted in left messages left with administrative staff but they were never returned.

I contacted the library at the F. W. Olin College of Engineering in Needham, Massachusetts in early 2012 to inquire about the foundation's papers. I was told at the time that the library had an extensive collection of papers concerning the foundation and I made an

appointment to see the files in March 2012. I travelled to Boston using my own funds and then to Needham to examine the archives held in the university library. Much to my dismay, the papers concerned the foundation of the college, consisting mostly press releases and assorted documents from the first few years of the university's opening. There were no papers concerning the history of the F. W. Olin Foundation besides its involvement with the college. After a few hours at the university library, I sat down and spoke with a university librarian who said I should contact the president's administrative secretary. I was given an email address and a phone number, but, despite a half dozen attempts to get a response, I was again left with no useful information.

While in Needham, I also arranged to stop by the historical society where the author of the latest history of F. W. Olin College of Engineering was employed. I left messages and emails with Gloria Greis as I had hoped that she would provide information about her interviews with Milas and perhaps even allow access to any historical documents she had. However I received no response from her to my inquiries. However her book, *From the Ground Up: The Founding and Early History of the Franklin W. Olin College of Engineering* (2009) provided much of the available information I could get on the foundation and some insight into what the principals of the foundation were thinking. Admittedly, the book was heavy on information from Lawrence Milas and did not provide me with the information to the specific questions I needed answers to. But it was one of the primary sources of information on the F. W. Olin Foundation that was available.

I had no luck in contacting either William Schmidt or William Horn, the two board members most sympathetic to Florida Institute of Technology. Both men had jointly resigned from the Olin College board of trustees in 2005. I spent several days over a couple of months

trying to track down the two men, and, with the assistance of Dr. Owens, I was finally able to contact William Horn through email. Horn, however, informed me after months of waiting for a response that he had nothing to tell me, and that anything he wanted to say was to be found in the public record. However, he did confirm that William Schmidt had passed away. I had hoped that these two gentlemen would be able to provide collaborating details on the F. W. Olin Foundation and their decisions behind ultimately supporting Lawrence Milas' proposal to establish a new engineering university next to his alma mater Babson College. However, this proved to be one of several dead ends in my research.

I also encountered problems with Florida Institute of Technology, especially in accessing archival records. I had been warned that the president's executive assistant was particularly protective of current and former administrators. I spoke with Ms. Louché several times prior to interviews with Dr. Catanese, Dr. Weaver, and Jack Hartley. Even with Dr. Weaver's assistance and intervention, I was promised access to the first F. W. Olin Foundation grant proposal and any other administrative papers that remained. Ms. Louché assured me that the many of the papers had been moved off campus to a storage site and that she would look for the materials, but she never followed through on my request. I sent a follow-up request and she assured me she would "soon" go to the offsite storage facility to look for the proposal and any papers that remained, since I was now informed that many were destroyed prior to being placed in long-term storage. Dr. Weaver loaned me his personal copy of the second grant proposal (2002 Proposal) and that proved to be a valuable resource in my research.

While Dr. Catanese was helpful with questions concerning the implementation of the second grant, his time was limited for the initial interview, and a second interview had to be

rescheduled. Both Dr. Weaver and Jack Hartley are men in their 70s or early 80s, and while both remain relatively sharp, their interviews replete with anecdotes and some very clear recollections, others were fuzzy and both referred me to look at original proposals and documents. Nevertheless, I was able to cross-reference some of their facts and figures with the second grant proposal as well as with available public records, but some inconsistencies remain, especially on how much of the promised $64 million dollars the university actually received from the foundation. Both Dr. Catanese and Ms. Louché assured me on a number of occasions that the amount was never the full $64 million, but it ranged from a low of approximately $48 million stated by Dr. Catanese to closer to $60 million during an informal conversation with Ms. Louché. Wilson (2008) states that the total sum was approximately $60 million.

Remarkably, the most helpful interview of those beyond the senior administrative staff was John Milbourne whom I was directed to by Margaret Moore, the senior administrative assistant in the School of Arts and Communication at Florida Institute of Technology. She informed me that Milbourne had overseen both of the construction projects on a day-to-day basis. His interview was both lucid and extremely informative. Some of the other university administrative and staff employees involved with the F. W. Olin Foundation grant had since retired or passed on.

Finally, as mentioned in Chapter 3, I needed to be aware of my own researcher bias in presenting these results. As the only researcher in the project, I spent a great deal of time on the subject and was generally better informed than many of the candidates on the overall history of the F. W. Olin Foundation and its decision to fund the creation of an entirely new university. I admit that at a few points in the interviews I provided information that filled in gaps possessed

by those being interviewed, but I do not believe that I in any way influenced what they said in a way it would have altered what their original intent was. I have discussed some of this inherent bias with my two different dissertation chairs, and I am confident that I have not allowed any of my personal biases to affect my research or the conclusions drawn from the interviews.

Recommendations for Future Research

This is a single-case study of one university receiving funding from the F. W. Olin Foundation. While the amount of money granted to Florida Institute of Technology was only exceeded by the amount granted for the establishment of the F. W. Olin College of Engineering, the foundation granted significant sums to numerous universities and colleges throughout the United States in its long history. It would be helpful to access any research materials connected with the grants received at these universities and colleges and undertake a comparative study on the conditionalities imposed on those institutions by the F. W. Olin Foundation. Such research would be helpful in deciding whether Florida Institute of Technology was a unique case or if these were common conditionalities for other grants offered by the foundation.

It would also be helpful to be able to access Florida Institute of Technology's remaining papers on the subject of the grant. However, unless there is change in the administration or papers are publicly released, I do not think access to the archival records will be easy to undertake. It might be helpful to speak with President Catanese to see if he can open some doors, but there is also the chance that this will be problematic given my job at the university. However, without access to those records, it will be nearly impossible to do anything more than chip

around the edges of the main story provided in Chapter 4 and perhaps fill in some of the details or provide a different approach.

It might prove interesting to contact Winter Construction to see if they have any correspondence with the F. W. Olin Foundation and Florida Institute of Technology. However, in light of the fact that a lawsuit had been filed between the university and Winter Construction, I doubt they would be very forthcoming with an investigation into their relationship with the foundation and the university. Since the university acted as primary contractor for the construction of the F. W. Olin Physical Sciences building, there is likely no contractor to contact for records.

There are also other individuals at Florida Institute of Technology who were involved in one or both of the grants, but I had not received any positive response from them up to this point in time. However, once the dissertation is published, it might be a tool that could be used to provide access to these individuals and their recollections of the events under discussion.

In the fields of higher education, more research could be done on the impact of corporatization, commercialization and commodification at Florida Institute of Technology. As the university has grown in size and wealth, it would be promising to expand the research explored herein to ask whether it has become a case-study of those three trends in higher education. It would also be enlightening to examine how corporatization has impacted faculty culture at the university, and whether it has had any measurable impact on collegial relationships.

The relationship between faculty and administration also offers up areas of future research, including what the impact of more commercial ventures have had on university culture.

How have the changes effected faculty recruitment and retention? How exactly has the new emphasis on acquiring external funding affected teaching and service by faculty?

In the field of presidents and higher education administration, how has a stronger, external fundraising president affected the university's traditional culture? How does this emphasis on fundraising challenge the traditional duties of the university president? In the specific case of Florida Institute of Technology, did the arrival of a president specifically selected to continue the fundraising efforts of Dr. Weaver mean that the president became less concerned with the day-to-day administrative role of a university president, instead focusing primarily on fundraising and politics? If that question is true, how exactly is the university governed by the Provost/Chief Operating Officer and do faculty have any true input to university decision-making? Preliminary evidence indicates that the administration has simply become more hierarchical, top-down, corporate in its decision making rather than the traditional collegial relationship between faculty and administrators.

Finally, the university should offer a case study into how important institutional development and fundraising can transform a university. Florida Institute of Technology failed to raise the required matching funds for the first F. W. Olin Foundation grant, yet within five years, managed not only to raise the sums that had failed to earlier, but more than doubled the $25 million required by the F. W. Olin Foundation grant. What changes took place in the development office and among university fundraisers to achieve such a dramatic turnaround? How much of a role did the board of trustees and the new president have in raising these sums, and how much of the money was due to a new and invigorated development office? It would be fascinating to compare and contrast the experiences of the fundraising efforts between 1990-

1995, 1997-2002, and the more successful effort between 2004-2009. What lessons did the university administration learn from these three experiences that it could apply to its current fundraising effort to raise more than $100 million dollars, a sum larger than the two F. W. Olin Foundation grants and the university's matching funds added together?

Summary

This chapter looked briefly at the issues of corporatization, commercialization and commodification and how they apply to higher education. The chapter then looked specifically at the Florida Institute of Technology as an example of corporatization in higher education. The question of whether the F. W. Olin Foundation grants worked was answered. My results and conclusions have been discussed in the context of the literature review on foundations and higher education. Finally, the limitations of the study have been stated and recommendations for future research were presented.

APPENDIX A INSTITUTIONAL REVIEW BOARD APPROVAL LETTER

University of Central Florida Institutional Review Board
Office of Research & Commercialization
12201 Research Parkway, Suite 501
Orlando, Florida 32826-3246
Telephone: 407-823-2901 or 407-882-2276
www.research.ucf.edu/compliance/irb.html

Approval of Exempt Human Research

From: **UCF Institutional Review Board #1**
FWA00000351, IRB00001138

To: **Matthew J. Ruane**

Date: **November 06, 2012**

Dear Researcher:

On 11/6/2012, the IRB approved the following activity as human participant research that is exempt from regulation:

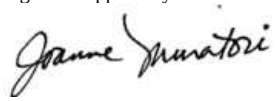
Type of Review:	Exempt Determination
Project Title:	Transforming a University? A Qualitative Analysis of the Grantee-Grantor Relationship between the Florida Institute of Technology and the F. W. Olin Foundation
Investigator:	Matthew J. Ruane
IRB Number:	SBE-12-08816
Funding Agency:	
Grant Title:	
Research ID:	N/A

This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made and there are questions about whether these changes affect the exempt status of the human research, please contact the IRB. When you have completed your research, please submit a Study Closure request in iRIS so that IRB records will be accurate.

In the conduct of this research, you are responsible to follow the requirements of the Investigator Manual.

On behalf of Sophia Dziegielewski, Ph.D., L.C.S.W., UCF IRB Chair, this letter is signed by:

Signature applied by Joanne Muratori on 11/06/2012 03:16:59 PM EST



IRB Coordinator

APPENDIX B EXPLANATION OF RESEARCH FOR IRB

EXPLANATION OF RESEARCH

Title of Project:	Transforming a University? A Qualitative Analysis of the Grantee-Grantor Relationship between Florida Institute of Technology and the F. W. Olin Foundation
Principal Investigator:	Matthew J. Ruane
Faculty Supervisor:	Dr. Tammy Boyd

You are being invited to take part in an interview as part of a research study. Your participation is completely optional.

As part of my dissertation to complete my Doctorate in Higher Education, I am conducting a series of interviews with administrators, staff and other members of the Florida Institute of Technology and the F. W. Olin Foundation. My research objective is to better understand the complex institutional dynamics and interactions that surrounded the awarding of a "transformational" grant by the F. W. Olin Foundation to the Florida Institute of Technology. These interviews will help academic scholars, university administrators and foundation grant officers to better understand the often-complex relationships that develop between the foundations offering grants and higher education institutions receiving these grants.

By participating, you will be contributing to a growing body of literature and research. If you agree to participate in this interview you must meet the following criteria:

1. Be an employee of either institution. You must have been employed by either: a) the F. W. Olin Foundation or b) Florida Institute of Technology, between the years 1990-2005.
2. Be involved in any stage of the grant process. As an employee of either the F. W. Olin Foundation or Florida Institute of Technology, you must have been involved in at least some portion of the grant process. This could range from the initial decision making to apply for the grant, to approval of the grant, awarding of the grant, oversight of the grant, and implementation of the terms of the grant.
3. Sign of a wavier of confidentiality. Due to the limited number of personnel involved in the grant decision and implementation process, it will be difficult to make the information you provide in your responses completely anonymous. However, if confidentiality is required for your participation, the researcher will do their best to employ pseudonyms or other tools to keep your identity as anonymous as possible.

Purpose: The purpose of this qualitative, case-study research study is to fill a definitive gap in the literature in regards to the relationship between foundations and higher education institutions. This research study will contribute research and knowledge to both the fields of foundational philanthropy and higher education administration.

Participation: A number of current and former administrative staff and officials at both the Florida Institute of Technology and the F. W. Olin Foundation will be contacted by email, regular US mail, or by phone. Those who agree to participate in the interview process will be given (either in hard-copy or by email) a copy of this consent form and be asked to schedule a face-to-face meeting for one interview, lasting from 30-90 minutes. If a physical meeting is not possible, they will be asked to provide written answers to the interview questions selected for their institution.

At the time of this first meeting, the participants will be asked to verbally confirm their agreement to be interviewed. The face-to-face interview will be recorded digitally with permission from each participant and will be transcribed as soon as the interview is finished. The format for the interview will consist of a series of open-ended questions meant to elicit thoughtful and detailed responses about their role in the grant process involving the two institutions. These questions will also ask them for their informed opinions about how the grant impacted not only their respective institutions but also their own careers and employment.

Following the first interview and careful transcription by the researcher, participants may be asked for a follow-up interview, either face-to-face (or by phone or email) to clarify any inconsistencies or lack of clarity in their responses. This second interview should last no more than 30-45 minutes. Again after careful transcription and review by the researcher, any subsequent interviews will be scheduled to meet for no more than 30 minutes to clarify any final questions about their responses. Each meeting will provide the researcher with the opportunity to further clarify the themes and preliminary findings with those being interviewed.

Participant confidentiality will not be assumed and will be difficult to account for, due to the limited number of easily identified individual involved with the grant process, from application to approval and the steps in-between leading to implementation. However, the researcher will, to the best of their ability, provide confidentiality to those who request such confidentiality as part of their agreement to be interviewed. Digital audio recordings and interview transcripts will be kept in a private and securing location, available only for the researcher, transcriptionist, and dissertation committee members. Participants will be allowed to review their verbatim transcripts for inaccuracies and to ensure researcher interpretation. Once the research is complete, the digital audio recordings and interview transcripts will be destroyed.

Researcher Contact Information: If you are interested to participate or if you have questions, concerns or complaints, please contact me, Matthew Ruane, by email at mattruane@knights.ucf.edu or by phone at (321)-794-2255. Upon your agreement to participate, I will contact you to discuss logistics, confirm eligibility, and to schedule an interview appointment.

You can also reach my doctoral program advisor, Dr. Tammy Boyd, by email at tmboyd@hotmail.com or by phone at (407) 257-9508.

IRB contact about your rights in the study or to report a complaint: Research at the University of Central Florida involving human participants is carried out under the oversight of the Institutional Review Board (UCF IRB). This research has been reviewed and approved by the

IRB. For information about the rights of people who take part in research, please contact: Institutional Review Board, University of Central Florida, Office of Research & Commercialization, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246 or by telephone at (407) 823-2901

APPENDIX C INTERVIEW QUESTIONS

Interview Questions

This is a list of preliminary interview questions. All questions, of course, will have a series of follow-up questions, beyond those listed below. These follow up questions will be informed by the answers provided during the interviewing process.

1) Why do you think the F. W. Olin Foundation was a good fit for Florida Tech?
2) What kind of relationship did you expect to have with the F. W. Olin Foundation once the grant was secured?
3) What was your specific role in securing any of the two grants (the first for $50 million or the second follow up for $14 million) from the F. W. Olin Foundation for Florida Institute of Technology?
4) Was the F. W. Olin Foundation clear in laying out the terms of the grant? Do you believe that the administration at Florida Institute of Technology understood those terms?
5) What was the most difficult aspect or aspects of securing/approving the grant?
6) Did the grant process, from application to final dispersal and use of funds, go as you expected? Explain.
7) Were there any terms or conditions to the grant offered by the F. W. Olin Foundation that you personally found either unacceptable or at least difficult to accept?
8) Were there unforeseen challenges or consequences in implementing the grant? If so, what were they? If not, why not?
9) How did acceptance of the grant affect your career or your immediate job at Florida Institute of Technology?

10) What was the F. W. Olin Foundation hoping to accomplish with the grant to Florida Institute of Technology?
11) What convinced you to extend the grant of $50 million to Florida Institute of Technology after initial rejecting their request?
12) Why did the F. W. Olin Foundation agree to fund an additional $14 million after the initial grant request was approved?
13) Your grant to the Florida Institute of Technology was originally $50 million. From the literature and foundation records, this was approximately $1/6^{th}$ of the total amount of money the foundation had given to higher-education institutions since 1938. Why was the grant to Florida Tech such a large one? What impact did a grant of that size have on the foundation?
14) How did issuing the grant affect your career or your immediate job at the F.W. Olin Foundation?

APPENDIX D INTERVIEW PROTOCOL

Interview Protocol

Do you have any questions before we begin?

1) **Why do you think the F. W. Olin Foundation was a good fit for Florida Tech?**
   This question is meant to open the interview and get the individual thinking about the overall relationship between the two institutions.

2) **What kind of relationship did you expect to have with the F. W. Olin Foundation once the grant was secured?**
   a. Why did you think this would be the relationship you would have?
   b. Was their any evidence to support your supposition/belief?

3) **What was your specific role in securing any of the two grants (the first for $50 million or the second follow up for $14 million) from the F. W. Olin Foundation for the Florida Institute of Technology?**
   a. What exactly was your role in your respective institution at the time?
   b. Who did you report to, if anyone?
   c. How much oversight did you have in your communication with the other institution? What did this oversight consist of?

4) **Was the F. W. Olin Foundation clear in laying out the terms of the grant? Do you believe that the administration at the Florida Institute of Technology understood those terms?**
   a. This question should be followed up with a request to explain either a simple Yes or No answer if the answer to the second part of the question is contrary to the first.

5) **What was the most difficult aspect or aspects of securing/approving the grant?**
   a. Each answer should be followed up with a series of probing questions to try and determine why they felt that way.
   b. Any previous answers provided by others who were interviewed early may inform additional follow up questions.

6) **Did the grant process, from application to final dispersal and use of funds, go as you expected? Explain.**

7) **Were there any terms or conditions to the grant offered by the F. W. Olin Foundation that you personally found either unacceptable or at least difficult to accept?**
   a. Why were these terms or conditions unacceptable or difficult to accept?
   b. Did you try to modify the terms or conditions in any way?

c. How did you deal with these potential difficulties?
d. Why do you think you were successful in overcoming these potential difficulties?

8) **Were there unforeseen challenges or consequences in implementing the grant? If so, what were they? If not, why not?**

9) **How did acceptance of the grant affect your career or your immediate job at the Florida Institute of Technology?**
   a. In hindsight, (if the change was seen as positive), how exactly did it improve your career or immediate job?
   b. In hindsight, (if the change was seen as negative), how exactly did it harm your career or immediate job?

10) **What was the F. W. Olin Foundation hoping to accomplish with the grant to the Florida Institute of Technology?**
   a. For Florida Tech officials: Modify this question to read: What do you think the F. W. Olin Foundation was hoping to accomplish with the grant to the Florida Institute of Technology.
   b. Did the Olin Foundation officials inform you at any time, or in any way, of how well they believed they were succeeding in implementing the grant's provisions/terms?
   c. For Olin Foundation officials if a positive response is received: What specifically do you think allowed you to achieve this desired outcome?
   d. For Olin Foundation officials if a negative response is received: Why do think you were not able to achieve your desired outcome with this grant?
   e. Did Florida Tech officials inform you at any time, or in any way, of how well they believed they were succeeding in implementing the grant's provisions/terms?

11) **What convinced you to extend the grant of $50 million dollars to the Florida Institute of Technology after initial rejecting their request?**

12) **Why did the F. W. Olin Foundation agree to fund an additional $14 million dollars after the initial grant request was approved?**
   a. When did the Florida Tech officials ask for additional sums of money?
   b. Did they ask for any special terms or conditions to these additional funds?
   c. How was the grant for these additional funds handled?
   d. Did you have different expectations based on your experiences with the original grant?

13) **Your grant to the Florida Institute of Technology was originally $50 million dollars. From the literature and foundation records, this was approximately 1/6th of the total amount of money the foundation had given to higher education institutions since**

1938. Why was the grant to Florida Tech such a large one? What impact did a grant of that size have on the foundation?

a. With the idea that the Olin Foundation was closing down by 1998, how did this request affect your decision-making?

b. Was there any opposition by your fellow board members to this final grant to an outside institution?

i. If so, in what form did it take?

ii. If not, why do you think there was no such dissent?

14) **How did issuing the grant affect your career or your immediate job at the F.W. Olin Foundation?**

a. In hindsight, (if the change was seen as positive), how exactly did it improve your career or immediate job?

b. In hindsight, (if the change was seen as negative), how exactly did it harm your career or immediate job?

Do you have any final questions or comments to offer?

Thank you for taking your valuable time to talk with me and share your insight and experiences. If I have any follow up questions or need any additional clarification to your answers, I will contact you within the next 14 days.

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Dr. Lynn Weaver, May 2013 (referenced as TR 1)
Dr. Anthony Catanese, May 2013 (referenced as TR 2)
Mr. Jack Hartley, May 2013 (referenced as TR 3)
Mr. John Milbourne, June 2013 (referenced as TR 4)