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The Economics of Perception: Potential Effect Regarding Institutional Uses of Recovered Facilities and Administrative Costs Upon a Faculty Member's Decision to Engage in Sponsored Research Activity

Anne Elizabeth Hatfield

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**THE ECONOMICS OF PERCEPTION: POTENTIAL EFFECT REGARDING
INSTITUTIONAL USES OF RECOVERED FACILITIES AND ADMINISTRATIVE
COSTS UPON A FACULTY MEMBER'S DECISION TO ENGAGE IN SPONSORED
RESEARCH ACTIVITY**

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Dissertation submitted to the Faculty of the
Marshall University Graduate College
in partial fulfillment of the
requirements for the degree of
Doctor of Education
in
Educational Leadership

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Huntington, West Virginia, 2012

Keywords: indirect costs, facilities and administrative costs, sponsored research, sponsored research administration, higher education finance, research faculty members, researcher/research administrator relations, sponsored programs.

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ABSTRACT

There is one aspect of sponsored research associated with higher education's research enterprise that often places the institution's research administrators and the institution's faculty members in conflict with each other: the recovery of Facilities and Administrative (F&A) costs associated with sponsored research projects (Sedwick, 2009; Wimsatt, Trice & Langley, 2009). Typically, the source of this conflict is the institution's assorted uses of recovered F&A costs as unrestricted revenue by the college or university (Cole, 2007; Mitteness & Becker, 1997; Sedwick, 2009; Wimsatt, et al., 2009). Sedwick extended the notion that "perhaps no other category of funding for the research enterprise is more misunderstood, maligned, and generally resented than indirect costs" (Sedwick, 2009, p. 22).

The purpose of this study was to research the potential effect a faculty member's perception of the institution's various uses and business practices associated with the recovered F&A costs generated by a sponsored project had upon her or his decision to engage in sponsored research. Currently, there is insufficient study of the faculty member's reaction based upon her or his perception of the institution's use of recovered F&A costs and how it affects the inclination of the faculty member to engage in sponsored research activity. The latent effect of faculty members choosing to not be involved in sponsored research activity based upon their negative reaction to the institution's various uses of recovered F&A costs could, potentially, result in a decline of total sponsored research awards from sponsors. A decline in sponsored research awards to academic institutions would not only affect faculty members, but it could result in the deterioration of the overall research and development capabilities in colleges and universities and eventually of the United States (Council on Government Relations, 2008; Welker & Cox, 2006).

The initial population for this study ($N = 3,741$) was comprised of all faculty members at West Virginia institutions of higher education that had a current negotiated F&A rate agreement approved by a federal cognizant agency. The population for this study had to be adjusted due to the follow factors: the e-mail address was incorrect in the online faculty directory, the faculty member did not respond or an e-mail address was not available for the faculty member in the institution's online directory. An invitation to participate in the study, as well as an electronic link to the survey, were sent to the entire adjusted population ($N = 3,292$). As a result, the sample ($N = 3,292$) for this study was equivalent to the adjusted population.

Overall, the faculty member's perception of the institution's various uses and aspects of recovered F&A costs had a neutral effect upon the faculty member's decision to engage in sponsored research activity. The examination of the perception primarily yielded negative comments or neutral comments; positive perceptions were the least frequent for all five research questions. In summary, the implication is that negative perceptions do exist, but their effect on a faculty member's decision to engage in sponsored research activity is more than likely a secondary or tertiary effect.

DEDICATION

When I told my grandmother I was accepted into the doctoral program, she immediately started planning for the day I would graduate. I am certain Babe started that day by making one of her famous lists in preparation for the big day. One afternoon, my grandmother let me know that she already had a special plan for her bound copy of my dissertation. She was going to place it on her coffee table next to the white candy dish, the highest place of honor in her home. Sadly my grandmother passed away in November 2007, but her unconditional love and complete confidence that I could accomplish anything will be with me always. In loving memory of an amazing woman, this dissertation is dedicated to my grandmother, Mary Elizabeth Morrison Stonestreet.

My family is my world. Without the love and support of my husband, my brother and my parents, I would not have received my doctoral degree. Ron, you have provided unfailing support, in addition to the countless sacrifices you made in order for my dream to become a reality. Fred, you helped me start this doctoral journey and always made me laugh when I needed it the most. Mom and Dad, your love, your guidance, and your patience with me as I plodded through many difficult life lessons gave me the ability, as well as the confidence, to complete this terminal degree.

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I know but one freedom, and that is the freedom of the mind.

--Antoine de Saint-Exupery

A successful journey is not possible without a compass and I forever will be indebted to my committee members who guided me through my doctoral journey. Dr. Cunningham, as my committee chair, you have been my true north since the beginning and helped me find my way when I was lost and provided unwavering encouragement when I needed it the most. I no longer believe that the light at the end of the tunnel is an oncoming train.

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CHAPTER ONE: INTRODUCTION

Colleges and universities in the United States have made significant contributions to society through decades of sponsored research activity. The diverse sponsored research projects conducted by institutions of higher education have led to scientific discoveries as well as social reform. The federally funded research conducted by institutions of higher education in the United States “helped win World War II, cure polio and put a man on the moon” (Hansen & Moreland, 2004, p. 46). This tradition of altruistic scholarly innovation by academia has developed into a research enterprise where success is defined by the growth of monetary resources as well as the intellectual contributions resulting from research efforts.

In 2007, 62% of the total research and development activities funded by federal sources were conducted by colleges and universities in the United States (“By the numbers”, 2008). In a survey of senior university researchers, 70% of those who responded believed sponsored research is as important to a university’s mission as its academic accomplishments (Welker & Cox, 2006). Currently, the academic research enterprise is created by the actions of faculty members, administrators, professional staff members, and support staff members. All of these groups contribute to the creation as well as sustaining the pursuit of sponsored research projects on behalf of the institution.

The academic research enterprise begins with and relies upon faculty members as they develop the proposals that result in external revenue needed to support research. The other component of thriving research endeavors at a college or a university is the institutional support of the academic research community by providing funding, central administrative personnel and other essential institutional resources to faculty members.

As a result of the current economic environment, colleges and universities in the United States are experiencing significant financial pressure to obtain external research funding due to the overall decline in government allocation for higher education (Wimsatt, Trice & Langley, 2009). In addition, the increasing cost of engaging in sponsored research activities creates a financial strain that is “a legitimate threat to the nation’s basic research capability” (Council on Government Relations, 2008, p. 17).

The decisions made by the institution on how recovered Facilities and Administrative (F&A) costs from sponsored research awards will be used are often part of the solution for some of the aforementioned fiscal challenges facing colleges and universities, yet these indirect costs are, perhaps, the most divisive area of costs within an academic research institution in the United States (Newfield & Barnett, 2010; Norris, 2002). What is not presently known is the effect the dissonance between faculty members and research administrators, associated with the various uses of recovered F&A costs has upon the success of the academic research enterprise.

Background

Sponsored research activity at a college or a university usually begins with the submission of a research proposal in response to a sponsor’s request for proposals or applications. These research proposals are most often written by faculty members who conduct research, in addition to their other roles and responsibilities, and assume the role of principal investigator (PI) if the project is funded by an external sponsor. The PI is characteristically responsible for the overall management of all administrative and technical aspects of the proposed research.

Federal sponsors award funding for research to colleges and universities based upon the results of a competitive review process (Council on Government Relations, 2008). If the faculty member's proposal is favorably reviewed by the sponsor, the academic institution is selected to accept the award on behalf of the PI. A notice of award is then sent from the sponsoring agency to the authorized institutional representative, often a research administrator, who then reviews the terms and conditions of the award. Typically, once the sponsor receives a fully executed agreement from the higher education institution, which serves as binding legal acceptance of the terms and conditions of the award, the sponsor then releases the awarded grant funds to the institution. Once the awarded grant funds are received by the college or the university, an account is created for the PI to access the available grant funds and then the actual sponsored research activity can begin.

When a sponsor provides funds to support research, the college or the university is provided with two general categories of budget line items to support a specific research project—direct costs and indirect costs. In addition, indirect costs are also known as facilities and administrative (F&A) costs. Typically, there are several budget line items for the direct costs specific to the proposed research and one line item for the indirect costs associated with conducting research. The definition of direct costs is articulated by the Office of Management and Budget (OMB) Circular A-21 as being restricted to costs such as salaries, equipment, materials, and supplies related to the proposed research project (Office of Management and Budget, 2004). OMB Circular A-21 defines F&A costs as “costs that are incurred for common or joint objectives and, therefore cannot be identified readily and specifically with a particular sponsored project” (Office of Management and Budget, 2004, p.11). Therefore, it may be difficult to determine the F&A costs associated with a specific

sponsored project with the same degree of accuracy as the direct costs connected to the same specific sponsored project.

Issues with Recovered F&A Costs

Based upon the benefits returned to institutions that are involved in sponsored research, it would seem the academic research enterprise yields only positive results that are mutually beneficial to PIs as well as to the college or the university at which they conduct their research. However, there is one aspect of sponsored research associated with higher education's research enterprise that often places the institution's research administrators and the institution's faculty members in conflict with each other—the recovery of F&A costs associated with sponsored research projects (Sedwick, 2009; Wimsatt, et al., 2009). The specific source of this conflict is the institution's assorted uses of recovered F&A costs as unrestricted revenue by the college or university (Cole, 2007; Mitteness & Becker, 1997; Sedwick, 2009; Wimsatt, et al., 2009). Sedwick extended the notion that “perhaps no other category of funding for the research enterprise is more misunderstood, maligned, and generally resented than indirect costs” (Sedwick, 2009, p. 22).

Several studies as well as reports have been issued on the subjects of F&A rates and of F&A costs associated with academic sponsored research. These studies and reports, however, were primarily limited to the opinions of the federal agencies or studied from the institutional perspective (Association of American Universities, Council on Governmental Relations, National Associations of State Universities and Land-Grant Colleges, 2007; Cole, 2007; Council on Government Relations, 2008; Decker, Wimsatt, Trice & Konstan, 2007; Sedwick, 2009; Sundberg, 1991; Welker & Cox, 2006). Although some literature exists that examines the challenges associated with the equitable institutional use of recovered F&A

costs, there are no conclusive studies regarding the effect the faculty member's perception of the use of recovered F&A costs on their decision to engage in sponsored research (Decker, et al., 2007; Sedwick, 2009; Sundberg, 1991; Watt & Higerd, 2007).

Faculty Member Perspective

Faculty members who are successful in securing external research funds use the financial resources to support or supplement their academic salaries, fulfill requirements for tenure, and to create opportunities to receive external acknowledgment of their research contributions to academia (Ortale, 2001). The majority of science, technology, engineering and mathematics (STEM) faculty members are expected to engage in some type of sponsored research activity as a condition of their employment, with the percentage of effort to be devoted to research determined by the faculty member's department (Cockriel, 2001).

The examination of the existing literature indicated that faculty members' reaction to their institution's overall use of recovered of F&A costs generated by the funded sponsored research efforts are predominantly negative in nature (Cockriel, 2001; Cole, 2007; Decker, et al., 2007; Dooley, 1995; Hoffman, 2009; Mitteness & Becker, 1997; Ortale, 2001; Sundberg, 1991). From the review of the available literature, the overall reaction from faculty members regarding the use of recovered F&A costs can be categorized into the following areas: the overall use of recovered F&A costs; the institution's justification for its use of recovered F&A costs; the support services offered by the sponsored programs office; the faculty member's dissatisfaction with the minimal or nonexistent return of recovered F&A funds to the faculty member; and the lack of direct financial support for administrative or clerical support dedicated to their sponsored projects (Decker, 2007; Mitteness & Becker, 1997; Ortale, 2001).

Developing a research proposal to be considered for funding, typically for a highly competitive funding opportunity, requires a significant amount of effort and resources from the faculty member, her department, and her academic college. Due to this level of effort and resources, the expectation of a faculty member anticipating an equitable return on her personal investment of creating and sustaining sponsored research activities at her academic institution is not unreasonable. Acrimony directed toward the institution's use of recovered F&A costs was demonstrated in a recent survey of research faculty, 68% of whom believed that a significant portion of recovered F&A revenue should be returned to the faculty member, the faculty member's department, and the faculty member's college responsible for the awarded grant as these academic entities generated all of the information that created the research proposal (Sedwick, 2009).

To adequately support the research enterprise, some faculty members have voiced the opinion that the majority of recovered F&A costs should be their financial return on their investment of time and resources in addition to the funding allocated for direct costs in support of research endeavors at their universities (Cole, 2007; Mitteness & Becker, 1997). One faculty member at the University of California stated the following: "Yes, the University needs to remember that even the goose that lays the golden egg needs to be fed once in a while" (Mitteness & Becker, 1997, p. 17). Without acknowledging the financial, as well as the scholarly, contributions of faculty members and their respective academic units, the geese who lay the metaphoric golden eggs of funded sponsored research activity may simply starve and cease to exist.

Institutional Perspective

Typically, the perspective of the institution's central administration, specifically sponsored programs administration, is that recovery of F&A costs is a partial reimbursement of costs the university had already expended in support of research (Research Support Policy Committee, 2004). The faculty member would not have the laboratories, project start-up funds, access to funds for cost share contributions, research staff, libraries, electricity in his office, and other necessary resources to conduct research without the institution's providing financial support derived from recovered F&A cost revenue. Greenberg stressed the importance of recovered F&A costs revenue with the following statement: "The computation of these costs has developed into an arcane accounting specialty, but the outcome is a large helping of federal funds atop the money specifically destined for the laboratory" (2007, p.14).

The importance of the administrative infrastructure responsible for the academic research enterprise is evident in that "the reputation of all research-intensive institutions is closely linked to the level of sponsored research funding awards" (Watt & Higerd, 2007, p.56). The financial benefit to academic institutions that engage in sponsored research endeavors is realized not only in receiving external revenue to support the direct costs of research, but also is achieved in the ability to effectively recover funding for the corresponding F&A costs associated with research in an academic setting.

Rationale

Sponsored research activity conducted by an institution of higher education generates "a kind of income little know to the outside world but extremely appealing in the stringent environment of university finance: reimbursement for indirect costs" (Greenberg, 2007, p.1).

Faculty members and administrators share a common interest and perceived benefit of becoming involved in sponsored research, but often have contradictory perspectives on how the recovered F&A costs linked to sponsored research activities should be used to support the research enterprise. The ability to recover F&A costs associated with sponsored research activities is an important component of the academic research infrastructure.

The review of current literature indicated the prevailing perception of faculty members, as it relates to the institution's various uses of recovered F&A costs, was typically negative (Cockriel, 2001; Cole, 2007; Decker, et al., 2007; Dooley, 1995; Hoffman, 2009; Mitteness & Becker, 1997; Ortale, 2001; Sundberg, 1991). In addition, the possible effect of negative perceptions regarding institutional use of recovered F&A costs from funded sponsored research projects has not been addressed in any of the available studies. At present, there are no nationwide or statewide studies specifically focused on the potential effect of the institution's use of recovered F&A costs on the faculty member's decision to engage in sponsored research activity. The only nationwide study that included the topic of F&A costs in a general discussion was the Federal Demonstration Project, Phase IV (Wimsatt, et al., 2009). This study is necessary to extend the available literature associated with institutions' use of recovered F&A costs by specifically investigating the effect of perception upon a faculty member's decision to become engaged in sponsored research activity at her or his institution.

Problem Statement

The majority of the available studies pertaining to general issues associated with recovered F&A costs and to faculty member perceptions are presently limited to a single institution or a state university system in other states (Briar-Lawson, Korr, White, Vroom,

Zabora, Middleton, Shank, Schartz, 2008; California State University–Chico, 2010; Carr, et al., 2009; Cole, 2007; Monahan & Fortune, 1995).

At present, there are no national, regional, or statewide studies that examine the use of recovered F&A costs and the subsequent reaction from faculty members on how these funds are used by their institutions. Based on the available studies of other institutions and state university systems, a statewide study of faculty members employed by West Virginia institutions of higher education that engage in sponsored research could further develop what is known about faculty members' perceptions of the use of recovered F&A costs use their institutions and the effect these perceptions may have upon their decisions to engage in sponsored research activity (Briar-Lawson, Korr, White, Vroom, Zabora, Middleton, Shank, Schartz, 2008; California State University–Chico, 2010; Carr, et al., 2009; Cole, 2007; Monahan & Fortune, 1995).

Research Questions

1. What effect, if any, does the faculty member's perception of the institution's overall use of recovered Facilities and Administrative costs have on her or his decision to engage in sponsored research activities?
2. What effect, if any, does the faculty member's perception regarding the institution's justification for the use of recovered Facilities and Administrative costs have upon her or his decision to engage in sponsored research activities?
3. What effect, if any, does the faculty member's perception of the support services provided by the sponsored programs office have upon her or his decision to engage in sponsored research activities?

4. What effect, if any, does the faculty member's perception regarding the percentage of recovered Facilities and Administrative costs returned to the faculty member have on her or his decision to engage in sponsored research activities?
5. What effect, if any, does the faculty member's perception regarding the amount of recovered Facilities and Administrative costs used to provide administrative and clerical support for the faculty member's sponsored research activities have upon her or his decision to engage in sponsored research activities?

Definition of Terms

Functional Definitions

Sponsored research administration, as a profession, uses several terms that may be unfamiliar or have multiple meanings to the readers of this study. The following definitions will be used in this study:

- Direct costs are the expenditures in a grant, cooperative agreement, or contract budget that are clearly allocated for a specific purpose to conduct a sponsored research project.
- Facilities and Administrative (F&A) costs are the costs of supporting research that are incurred for the common purpose or joint research objectives and cannot be specifically associated with a particular sponsored research project. F&A costs are also referred to as overhead costs or indirect costs by entities involved in sponsored research endeavors.
- The Facilities and Administrative (F&A) rate agreement is a financial document that enables a college or university to recover a percentage of the F&A costs from the sponsor.

- A Principal Investigator (PI) is a faculty or staff member who is responsible for the coordination, preparation, management, and technical reporting of all proposal and submission materials, as well as the proper fiscal management and conduct of the project that is in compliance with all terms and conditions of a sponsored agreement.
- The academic research enterprise is a section of the overall academic community that is comprised of faculty members serving as PIs on a sponsored project, administrators, professional staff members, and support staff members that are involved with creating, as well as sustaining, the pursuit of sponsored research projects on behalf of the institution.
- Sponsored programs or sponsored research are any projects involving research, instruction, training, or other service activities that are supported by non-university, external funds that are awarded as a result of an application submitted to a potential sponsor by the college or university on behalf of a faculty member.
- A sponsored programs office is/are the central administrative unit(s) that often submit, accept, and manage sponsored projects on behalf of the institution. In addition, these types of offices also provide accounting, purchasing, and various research compliance services to support the research efforts of faculty and staff. The organizational structure of a sponsored programs office varies and is determined by the individual institution of higher education.

Operational Definitions

1. The faculty member's perception of the institution's overall use is defined as the faculty member's comprehension of the extent to which recovered F&A costs are equitably used among all groups that compose the academic research community. The effect of the faculty member's perception of her or his institution's overall use of recovered Facilities and Administrative (F&A) costs on her or his decision to engage in sponsored research activity will be measured by her/his response to survey question 9 through survey question 12.
2. The faculty member's perception of the institution's justification for the use of recovered F&A costs is defined as the faculty member's understanding of the institution's scope of fiscal responsibilities associated with recovered F&A costs generated by funded sponsored research projects. The effect of the faculty member's perception regarding the institution's justification for the use of recovered F&A costs on her or his decision to engage in sponsored research activity will be measured by her or his response to survey question 13 through survey question 16.
3. The faculty member's perception of the support services provided by institution's sponsored programs office is defined as the faculty member's knowledge of the complexity and the extent of the policies and procedures that direct the types of services provided by the sponsored programs office. The effect of the faculty member's perception regarding the support services provided by the institution's sponsored programs office on her or his decision to engage in sponsored research

activity will be measured by her or his response to survey question 17 through survey question 20.

4. The faculty member's perception of the amount of recovered F&A costs returned to the faculty member, her or his department, or her or his college or a combination of all three units is defined as the faculty member's understanding of the fiscal responsibilities and research expenditures related to the recovered F&A costs generated by funded sponsored research projects. The effect of the faculty member's perception regarding the percentage of recovered F&A costs returned to the faculty member, to her or his college, to her or his department, or a combination of all three units on her or his decision to engage in sponsored research activity will be measured by her or his response to survey question 21 through survey question 24.
5. The faculty member's perception of the adequacy of administrative or clerical support dedicated to her or his sponsored research activity paid from recovered F&A costs is defined as the faculty member's understanding of the fiscal responsibilities and the level of necessary support personnel for her or his institution, college, department, or a combination of all three units that is related to the preparation, as well as the administration, of funded sponsored research projects. The effect of the faculty member's perception regarding the adequacy of administrative or clerical support dedicated to sponsored research activity on her or his decision to engage in sponsored research activity will be defined by her or his response to survey question 25 through survey question 28.

Methods

The initial population for this study ($N = 3,741$) was comprised of all faculty members at West Virginia institutions of higher education that had a negotiated Facilities and Administrative (F&A) rate agreement approved by a federal cognizant agency.

The adjusted population was used the sample for this study ($N = 3,292$) and was defined as the number of e-mails sent to above-mentioned initial population minus the e-mails that were returned for three possible reasons: the e-mail address was incorrect in the online faculty directory, the faculty member did not respond, or an e-mail address was not available for the faculty member in the institution's online directory. At the conclusion of the survey, 513 surveys were returned resulting in a return rate of 15.58%.

The *Faculty Member Reaction to the Use of Recovered F&A Costs* survey was used once to collect data from the population. The data collected from the sample was divided into two groups, the PI group and the non-PI group, before the statistical analysis of the data. The PI group was comprised of 235 respondents, 271 respondents identified themselves as non-PIs, and 7 faculty members chose not to provide an answer.

Limitations and Assumptions

The findings are limited to the perceptions of the faculty members who work at colleges and universities in West Virginia that have a negotiated F&A rate agreement. Therefore, the findings cannot be generalized to represent the perceptions of all faculty members who engage in sponsored program activities or to those who apply for non-federal research funds at all institutions of higher education.

Faculty members that completed and returned the survey may have done so out of either a positive or negative bias toward the use of recovered F&A costs generated by their

funded sponsored projects. Another important limitation that should be acknowledged is that the survey questions assumed a certain level of knowledge on the part of the faculty members regarding how their F&A funds are used. In addition, there may have been other incentives offered to faculty members by their institution that counteracted any negative effect of the institutional use of recovered F&A costs upon their decisions to engage in sponsored research activity. In addition, some faculty members are administrators who merely have a faculty appointment and may have an expanded or different perspective of the use of recovered F&A costs than a full-time faculty member.

The policies, business practices, and organizational structures affiliated with sponsored research administration are determined by the individual institution; these variances may have affected the study. One example of this variance that could affect this study is the organizational structure, as well as the services provided by a sponsored programs office, every attempt was made by the researcher to carefully account for key underlying variables.

The researcher's professional experiences with faculty members provides an experiential background that was effectual in eliciting and understanding respondents' perceptions regarding the institutional use of recovered F&A costs. Due to the researcher's understanding of the academic research enterprise; however, there is the potential that the researcher had a degree of empathy for faculty members' negative perceptions associated with the institutional use of recovered F&A costs. Therefore, the researcher's professional experiences can be viewed as a limitation in that it is a potential source of bias.

CHAPTER TWO: LITERATURE REVIEW

Perceptions wrought by contrasting reactions often are catalysts for conflicts associated with a specific issue. The general reactions of faculty members regarding the institutional use of recovered Facilities and Administrative (F&A) costs from thriving sponsored research activity is perceived as follows: “Few areas of university budgeting are less transparent, more confusing, or create more ill will and mutual suspicion” (Newfield & Barnett, 2010, p. 3). The rationale for the study the faculty member’s reaction of how their institution makes use of recovered F&A costs and the effect their reaction may have upon their choice to actively seek federal grant funds was determined after a thorough review of the available literature.

The dissemination of the information gleaned from the literature review will be organized into three sections. The first section will provide information regarding the historical development of sponsored programs within an academic setting in the United States as well as the background information associated with the development of Office of Management and Budget (OMB) Circular A-21. The second section of this chapter will examine John Rawls’ theoretical view of social contract theory and then apply the concepts of distributive justice and the difference principle to the issue of institutional use of recovered F&A costs within the academic research community. The last section of this chapter will examine the issue of the use of recovered F&A cost from the perspective of the faculty member as well as the institutional perspective.

History of Sponsored Programs and F&A Costs in the United States

Sponsored programs activities conducted on the campuses of U.S. colleges and universities have significantly changed in purpose and in complexity over the last sixty years.

The fundamental change experienced by faculty members has been their transformation from the role of educator to the role of academic entrepreneur when they become faculty members on a sponsored research project. From altruistic origins, universities and colleges now compete with other academic institutions for prestige, students, and income “to determine who is successful” (Cole, 2007, p.16) in securing external research funds.

In 1945, Vannevar Bush released *Science, the Endless Frontier: A Report to the President* to encourage the federal government to “make a massive and sustaining investment in basic scientific research” (Zemsky, Wegner & Massey, p. 2, 2006). The release of this document provided the foundation for significant federal policy changes in which higher education became the primary recipient of federal funding for scientific research. Prior to World War II, federal support for research was virtually non-existent on the campuses of colleges and universities (California State University-Chico, 2010). The changes in federal policy established a dependence on U.S. colleges and universities to perform research (Knezo, 1997). The larger universities and colleges in the United States organized their institutions to compete for sponsored programs funds from the Department of Defense (DOD), the National Science Foundation (NSF), and the National Institutes of Health (NIH) when the federal government made academic scientific research funding a priority (Zemsky, 2006).

In 1947, the Office of Naval Research (ONR) negotiated the first set of accounting principles to determine F&A cost rates; this was referred to as the "Blue Book," or *Explanation of Principles for Determination of Costs Under Government Research and Development Contracts with Educational Institutions* (Research Support Policy Committee, 2002). The publication of the Blue Book acknowledged that colleges and universities were

significantly different both organizationally and programmatically from commercial firms and required different cost principles to cover unique accounting practices (Knezo, 1995). OMB Circular A-21's 1958 issuance by the Bureau of the Budget (now called OMB) represented a concerted effort at the federal level to establish government-wide cost principles by revising ONR's Blue Book (Dummer, 1995; Research Support Policy Committee, 2002). Prior to the issuance of OMB Circular A-21 in 1958, each federal sponsor developed and maintained agency-specific cost recovery policies applicable.

When OMB Circular A-21 was issued by the Bureau of the Budget, it was not well received by colleges and universities involved in federally funded sponsored programs activities, but it was perceived to be more equitable than the Blue Book (Dummer, 1995). Some federal sponsors chose to ignore the cost accounting standards outlined within OMB Circular A-21 as it pertained to F&A costs. For example, NIH standardized the F&A cost rate they would accept to 15% in 1958 and raised their standardized F&A cost rate to 20% five years later (Research Support Policy Committee, 2002).

Starting in 1958, the sponsored programs relationship between federal sponsors and academic institutions had a 10 year period of flourishing growth (Dummer, 1995). From the beginning of the rapid expansion of the federal-academic research partnership, limitations were placed on academia's ability to recover F&A costs. The F&A cost limitations placed upon colleges and universities by federal agencies were attributed to the contention that "they have a public interest mission to advance knowledge and that research and education is linked" (Goldman, 2000, p. 11). During this time, OMB Circular A-21 was revised to further define direct costs, F&A costs, and to set standards for accountability, documentation, and consistency (Knezo, 1997; Research Support Policy Committee, 2002).

During the 1960s, federally funded academic research provided generous support for construction, infrastructure, and allowing for reimbursement of F&A costs, such as maintenance and other overhead costs, to colleges and universities (Knezo, 1997). Also during this time period, several revisions were made to OMB Circular A-21 regarding the methods used to clearly define allowable F&A costs (Research Support Policy Committee, 2002). From 1963 to 1965, Congress became increasingly skeptical of the necessity of awarding F&A costs as a part of a federal research award and conducted five separate congressional hearings on the issue (Dummer, 1995). In 1966, all F&A cost restrictions were removed and the expectation was that colleges and universities that received federal research funds would be reimbursed 100% of their allowable F&A costs (Indirect Costs, 2002; California State University-Chico, 2010). The abundance of federal funding available to higher education institutions drastically changed at the end of the 1960s with the advent of significant reductions to the amount of available federal funding to support research. The *Revenue and Expenditure Act of 1968* placed an immediate \$6,000,000 reduction on academic research by placing a limitation on the total cash payments on all funded research grants in fiscal year 1969 (Dummer, 1995). Any active or planned research projects were either terminated or the full cost of the research project became the responsibility of the academic institution. These drastic actions were in part a reaction to federal sponsors' skepticism regarding the legitimacy of the F&A costs recovery requests from academic institutions (Dummer, 1995). Federal reimbursement of recoverable F&A costs continued to diminish due to the idea that "federal programs sometimes favor reaction over reality" (Dummer, 1995, p. 4).

OMB Circular A-21 was revised six times between 1961 and 1976 due to several factors that created the necessity for the radical revisions: increasing budget pressures from federal sponsors, demands from the academic research community for increased funding, revelation of serious cost-accounting errors, and the increased scrutiny of F&A costs claimed by colleges and universities involved in administering federally funded sponsored programs (California State University-Chico, 2010; Dummer, 1995).

In the late 1960s, OMB Circular A-21 modified the effort-reporting requirements for personnel associated with a specific sponsored project and raised the total federal award threshold of \$1,000,000 that allowed less active academic research institutions to calculate their F&A cost rate by a simplified method (Dummer, 1995; Research Support Policy Committee, 2002). These colleges and universities did not have to formally negotiate an F&A cost rate with a federal agency, but the simplified method of recovering allowable F&A costs using the “short form” decreased the amount of recoverable F&A costs. Revisions to effort-reporting requirements for any personnel receiving salary compensation from a sponsored project award were revised again in 1975. In 1975, OMB Circular A-21 was amended to include a requirement that “100% of an employee’s workload must be accounted for if any part of the employee’s salary was charged directly or indirectly to a sponsored agreement” (Dummer, 1995, p. 6). The purpose of this revision was to decrease the occurrence of sponsored research awards funding efforts not specifically linked to a sponsored research project

Starting in 1970, the process of determining the amount of recoverable F&A from sponsored research awards also experienced noteworthy amendments. From 1970 to 1985, “There was an annual shift of more than \$500,000,000 from research to indirect cost

payments to academic institutions” (Knezo, 1997, p. 3). This financial shift from direct costs to indirect costs is attributed to the change in F&A cost calculation by colleges and universities. Goldman hypothesized that “predetermined rates reduce costs of negotiating rate agreements and allow all parties to budget more precisely during the predetermined period (Goldman, 2000, p. 16). In addition, from OMB Circular A-21, Goldman extrapolated the benefits of negotiated fixed rates as being the allowance “for any differences between the estimated costs used to establish the fixed rate and the actual costs during the period are carried forward to a subsequent period as an adjustment” (Goldman, 2000, p.16). By increasing an institution’s ability to determine F&A costs with a higher degree of accuracy, the amount of F&A costs generated by funded sponsored research projects would also increase. The very term used to describe F&A costs was revised several times since 1958. The May 1996 revision of OMB Circular A-21 replaced the term *indirect costs* with the term *facilities and administrative costs* and became the official name for this item of cost (Office of Management and Budget, 2004). In the academic research community, the terms *indirect costs*, *overhead*, and *F&A costs* continue to be used interchangeably by all professionals involved with sponsored research (Office of Management and Budget, 2004).

The aforementioned drastic changes were reactionary responses by various federal agencies to the vague aspects of OMB Circular A-21 and perceived waste of federal funds to reimburse the F&A costs associated with sponsored programs conducted by colleges and universities. In addition, the changes in federal policy pertaining to sponsored research, as well as the numerous revisions to OMB Circular A-21, defined the cost accounting standards for sponsored research, but the increased accountability did not result in an increase in available indirect cost funding for sponsored research. The nebulous guidelines pertaining to

the allowable F&A costs that can be recovered from sponsored project awards were used by colleges and universities to maximize the amount of recoverable F&A costs. Subsequently, these conditions generated several events that appeared to substantiate the negative perceptions surrounding the use of recovered F&A costs from sponsored research projects generated by the academic research enterprise.

Recovered F&A Costs Controversy—Stanford University

A landmark event related to dissonance regarding the use of recovered F&A costs between university administrators and research faculty members began during the 1980s at Stanford University. In 1991, Stanford University's negotiated F&A cost rate agreement was one of the highest of any college or university in the nation (Pollack, 1991). At that time, the negotiated rate was 74% of Modified Total Direct Costs (MTDC) for on-campus sponsored programs activities (Pollack, 1991). With some of the recovered F&A costs, the Stanford University administration purchased items such as a yacht and flowers for university functions in honor of the president's office instead of supporting Stanford University's research enterprise with the recovered F&A cost revenue generated by the inflated F&A rate (Zemsky, 2006). The abovementioned items were justified as allowable costs "because the residence was used for receptions and other official functions, some of them related to research" (Pollack, 1991, p. 16).

After being alerted by numerous complaints from Stanford University research faculty members, it was discovered via a federal audit that President Donald of Stanford University had knowingly approved the inflated F&A rate agreement developed by the sponsored research accounting office. Congressman John Dingell presided over the first hearing on the improper calculation of F&A costs and recognized that faculty members

within the academic setting had valid complaints about F&A costs obstructing their ability to compete for federal research funding by being “saddled with these high overhead rates” (Johnson, 1991, p. 279). Federal auditors were charged by Congress with the task to determine if Stanford University over-charged the Federal government “by tens of millions of dollars for research done there in the last decade” (Pollack, 1991, p. 16). Initially, the congressional subcommittee focused the audit on Stanford University but later expanded the audit to 13 other colleges and universities that also received federal research funds during the same fiscal years in question.

The congressional audit revealed that inflated negotiated F&A rates led to the “improper overhead charges to the federal government of between \$1.9 and \$2.4 million for a one year period” (Knezo, 1997, p. 5). The total amount of questionable recovered F&A costs was approximately \$14,000,000 for all of the aforementioned audited colleges and universities (Knezo, 1997). After subsequent congressional hearings, many colleges and universities voluntarily reimbursed the federal sponsors for apparent abuses; Stanford University was ordered to repay \$3 million in fraudulent recovered F&A costs from sponsored programs activities. In addition, Stanford University revised its F&A rate agreement and subsequently accepted a significantly lower negotiated F&A rate (Knezo, 1997). The president of Stanford University stated the institution did nothing wrong as it pertained to the calculation of their F&A cost rate or the use of recovered F&A costs, but was merely being aggressive in recovering as much F&A costs per OMB Circular A-21 and other applicable federal laws (Pollack, 1991).

The vagueness regarding allowable administrative costs and the calculation of F&A cost rate agreements was quickly remedied after the Stanford University F&A cost

controversy. The most drastic revision occurred in late 1991 when the federal government placed a restriction on the amount of administrative costs that could be included when calculating the institution's F&A cost rate agreement. This restriction capped the salaries of the university's president, provosts, deans, department chairs, and sponsored programs administrators at 26% of their institutional base salary, when used to calculate the F&A costs rate agreement (California State University-Chico, 2010; Research Support Policy Committee, 2002). In addition, other administrative costs were now excluded from the F&A costs rate calculations such as alcoholic beverages, entertainment, alumni activities, housing and personal expenses of board officers, defense and prosecution of criminal and civil proceedings, patent infringement, and trustees' travel expenses (Office of Management and Budget, 2004).

An article from a California newspaper summarized the Stanford University F&A costs tumult in the following manner: "Five years from now, the public may only remember the Stanford University yacht, but the nation's top schools will feel the effect of the indirect cost controversy" (Dummer, p. 2, 1995). The issues between administrators and faculty members regarding the institution's use of the recovered F&A costs existed on all college and university campuses across the United States before the events at Stanford University, but this single event altered the academic research enterprise for all involved.

Current Status of Sponsored Research in the United States

The last 30 years have shown a significant increase in the number of universities and colleges participating in federally funded research projects (Ortale, 2001). Briar-Lawson, et al. summarized the current state of academic sponsored programs as follows: "Research universities have raised the bar for all academic units, expecting them to increase research

grants and contracts to support knowledge creation and scholarship” (Briar-Lawson, et al., 2008, p. 236). In 2008, \$51.9 billion was awarded to colleges and universities for research and development sponsored research “which represents an increase of 4.8 percent over the previous year (\$49.5 billion)” (West Virginia Higher Education Policy Commission, 2009, p.8). The primary rationale for an increase in sponsored research activity can be attributed to the significant financial pressure on colleges and universities to obtain external funding due to the decline in government allocations for higher education (Wimsatt, et al., 2009). In addition, without the recovery of all costs associated with conducting sponsored programs, the escalating increases in sponsored programs accounting and research compliance costs created by federal mandates become a significant financial burden to academic institutions (Bienenstock, 2002; Goldman, 2000; Li, 2003).

The federal reaction on the topic of colleges and universities having the ability to recover F&A costs also has created a negative effect upon the academic sponsored programs enterprise in the United States. Colleges and universities engaging in sponsored research activity sometimes are limited in certain circumstances on the amount of F&A costs they can recover by new federal statutes, as well as funding agency policies (Goldman, 2000; Office of Science and Technology Policy, 2000). In 1995, Congress declared they would eliminate the federal deficit and balance the budget by 2002 (Dummer, 1995). One proposed strategy to accomplish this ambitious goal was to reduce the “cuttable” (p. 1) expenditures related to academic research (Dummer, 1995). In 2000, federal sponsors invested approximately \$15 billion in science and engineering research at colleges and universities in the United States (Office of Science and Technology Policy, 2000). Of that \$15 billion, \$11.25 billion was allocated for direct costs associated with sponsored programs and only \$3.75 billion was

allocated for F&A costs (Office of Science and Technology Policy, 2000). In 2005, the federal government awarded \$29.1 billion in research funds; 63.7% of that total was awarded to colleges and universities (Association of American Universities, Council on Government Relations, National Associations of State Universities and Land-Grant Colleges, 2007). During this same year, NIH reimbursed colleges and universities for \$5.9 billion in F&A costs and the NSF reimbursed academic institutions for \$980 million in F&A costs. According to NSF, federally funded research awarded to academic institutions increased by 1.1% to \$30.4 billion in fiscal year 2007 (By the numbers, 2008). If inflation is included in the previous statistic, the federal funding levels to colleges and universities have actually decreased 1.6% from the amount awarded to these institutions in fiscal year 2006 (By the numbers, 2008).

OMB Circular A-21 continues to define the Cost Accounting Standards (CAS) required of all educational institutions that engage in sponsored programs activities. Colleges and universities currently are required to comply with the following CAS: demonstrate consistency in estimating and reporting costs; consistency in classifying what are considered direct costs; and treating like costs consistently in similar situations and areas (Council on Government Relations, 2008; Goldman, 2000; Office of Management and Budget, 1994). OMB Circular A-21 still does not provide any guidance or suggestions on how F&A costs reimbursed by funded research grants or contracts should be distributed within a college or a university (Office of Management and Budget, 2004; Research Support Policy Committee, 2004).

The American Recovery and Reinvestment Act of 2009 (ARRA), allocated scant financial resources to higher education institutions to support sponsored research activities.

The ARRA stimulus funds provided approximately \$10.25 million in one-time research funds to supplement the \$50 billion in research funds awarded to colleges and universities for research (Newfield & Barnett, 2010). ARRA stimulus funds were not allocated to support the corresponding increase in F&A cost due to the influx of additional research funds. The effect of this fiscal oversight will force colleges and universities to involuntarily provide more cost share by subsidizing more of the actual cost to conduct the sponsored programs generated by the infusion of ARRA funds (Newfield & Barnett, 2010). One possible solution would be to use the remaining stimulus funds as supplemental reimbursements for F&A costs and exclude these funds from the calculation of future F&A rate agreements (Newfield & Barnett, 2010). This solution has not been implemented by any federal sponsor of research endeavors, only suggested by numerous college and university sponsored research administrators involved with federally funded research.

Current Status of Sponsored Research in West Virginia

In 2008, West Virginia's colleges and universities had \$170,869,000 in sponsored research awards (West Virginia Higher Education Policy Commission, 2009). Many public, as well as private, colleges and universities in West Virginia have negotiated F&A rate agreements to recover the allowable F&A costs associated with sponsored research. Currently, the following private colleges and universities have a negotiated F&A rate agreement: Davis and Elkins College, Salem International University, and Wheeling Jesuit University (United States Department of Health and Human Services, 2011). These three institutions represent 25% of the total private colleges and universities in West Virginia. At present, the following public colleges and universities that have a negotiated rate agreement include Bluefield State College, Fairmont State University, Marshall University, Shepherd

University, West Liberty University, West Virginia School of Osteopathic Medicine, West Virginia State University and West Virginia University (United States Department of Health and Human Services, 2011). These institutions, counting regional campuses or graduate colleges as separate entities, represent 85% of the total public colleges and universities operating in West Virginia. The data for these institutions of higher education can be further examined in Table 1.

Table 1

F&A Rates for West Virginia Colleges and Universities – Fiscal Year 2010

Institution	Type	F&A Rate
Bluefield State College	Public	64.2%
Davis and Elkins College	Private	30.0%
Fairmont State University	Public	50.0%
Marshall University*	Public	42.0%
Salem International University	Private	65.0%
Shepherd University	Public	43.0%
West Liberty University	Public	40.5%
West Virginia School of Osteopathic Medicine	Public	42.5%
West Virginia State University	Public	52.0%
West Virginia University*	Public	47.0%
Wheeling Jesuit University	Private	34.5%

**These institutions have regional campuses.*

Functional Application of Rawls' Distributive Justice and Difference Principle

The success of the academic research enterprise at any college or university campus is dependent upon the collaboration between the institution and the faculty member to honor their respective obligations of time as well as effort to support the academic research enterprise. Faculty members provide the research expertise necessary for the technical success of the sponsored project, the necessary tasks essential for complying with the financial and administrative policies and the regulations associated with a funded sponsored research project. Each higher education institution is compelled by its mission as well as its fiscal demands to support the research endeavors of faculty members, submit sponsored research applications to the sponsor, accept and provide administrative oversight of awards made by the sponsor to the institution.

Unfortunately, according to Lowery and Hansen (as quoted in Carr, McNicholas & Miller, 2009), the integration of research and instruction as key functions of contemporary faculty members is “fraught with policy issues, historical biases, and personnel considerations” (Carr, et al., 2009, p. 70). For the purposes of this study, the application of Rawlsian distributive justice ideology is not used as the basis for a moral discussion to examine the relationship between faculty members and their institutions regarding the use of recovered F&A costs. Rather, the idea of distributive justice is used to provide a framework for exploring perceptions regarding the equitable distribution or use of recovered F&A costs generated by funded sponsored research projects.

Distributive Justice

The perception that distributive shares of recovered F&A costs are not “arranged so that they are both (a) to the greatest expected benefit of the least advantaged and (b) attached

to offices and positions open to all under conditions of fair equality of opportunity” (Rawls, 1999, p.72). The concept of distributive shares is concerned with the fair allocation of resources—such as recovered F&A costs—among diverse members of a community (Rawls, 1999; 2003). The academic research enterprise has a limited amount of available financial resources and the question then arises as to what is an equitable use of recovered F&A costs from these limited resources that maximizes the total benefit to the academic research enterprise (Rawls, 1999; 2003).

Typically, the method used to determine equitable distribution of shares takes into account the total amount of resources to be distributed, the distributing procedure, and the pattern of distribution within the institution that result from this process (Rawls, 1999; 2003). The academic research community has limited sources of revenue and the discord between institutions and faculty members begins with the question as to how the resource of recovered F&A costs should be distributed (Rawls, 1999). The idyllic answer to this quandary for an institution is that assets should be distributed in a reasonable manner so that each sector of the society or individual member of the community receives her or his equitable share of these assets. Rawls (1999; 2003) acknowledges that distribution of available resources cannot be absolutely equal nor should resources be dispersed solely based upon achievement or merit. The current approach by the institutions regarding the use of recovered F&A costs appears to reward the institution, not the faculty members, for its backing of the academic research enterprise.

Difference Principle

The academic research enterprise is a society, as well as an economic system, that can be described as “not only an institutional device for satisfying existing wants and needs

but a way of creating and fashioning wants in the future” (Rawls, 1999, p. 229). Rawls argued that if social and economic inequities exist within an institution, any inequities should be addressed in the following manner: “(a) to the greatest benefit of the least advantaged, consistent with the just savings principle, and (b) attached to offices and positions open to all under conditions of fair equality of opportunity” (Rawls, 1999, p. 266).

The primary source of the faculty member’s negative reaction to the institutional use of recovered F&A costs can be attributed to the general impression that recovered F&A costs are not being used to equitably support the entire research enterprise (Cockriel, 2001; Cole, 2007; Decker, et al., 2007; Dooley, 1995; Hoffman, 2009; Mitteness & Becker, 1997; Ortale, 2001; Sundberg, 1991). Consequently, the difference principle is a practical approach that provides guidance, not definitive decisions for procedural changes regarding the numerous contingencies associated with the use of recovered F&A costs by a college or a university actively involved in sponsored research.

Identified Dissonance from the Faculty Members’ Perspective Regarding the Institutional Use of Recovered F&A Funds

According to Lowery and Hansen (as quoted in Carr, et al.) the integration of research and instruction as key functions of faculty members is “fraught with policy issues, historical biases, and personnel considerations” (Carr, et al., 2000, p. 70). One example of a faculty member’s perspective regarding F&A costs appeared in a recent edition of the *Chronicle of Higher Education*: “The university acquiesces in this process enthusiastically, institutionally addicted to the flow of money for research and overhead, and to the reputation that accrues from that research” (Hoffman, 2009, p.2). The typical faculty member’s perception of recovered F&A costs is that “the F&A component is something they are bringing to the

University and donating to the institution” (California State University-Chico, 2010, p. 3). In addition, a significant change in the expansion of faculty roles is the institution’s expectation that faculty members must adopt an entrepreneurial approach to secure external funds for sponsored programs (Wimsatt, et al., 2009).

According to Wimsatt, et al. (2009), negative reactions from faculty members can be attributed to the following, “Scholars tend to be autonomous and individualistic in their work. In contrast, administrators are perceived as focused on bureaucratically defined institutional needs” (Wimsatt, et al., 2009, p. 4). From an individualistic standpoint, it is logical that a faculty member would assume ownership of any recovered F&A costs and the institution’s use of recovered F&A would then appear to be unfair. The important query then becomes to what extent the adversarial professional relationships and the difference in reactions between the faculty members and the academic institution’s administration is helping or hindering the academic research enterprise (Wimsatt, et al., 2009).

Faculty Members’ Reaction to Overall Institutional Use of Recovered F&A Costs

Johnson suggested that “researchers have long been unhappy at the bite F&A costs take out of research grants, but rarely have taken direct action to control expenditures that determine those costs—indeed they have felt powerless to do so” (Johnson, 1991, p. 279). Many faculty members believe their college or university is making “a considerable profit from F&A cost recovery” (Ortale, 2001, p.75). Several authors indicated that faculty members are strongly encouraged by their institution to engage in sponsored research activities that allow the maximum amount of recoverable F&A costs in a project budget, yet the faculty member’s sponsored research productivity is not rewarded by the institution with

an equitable amount of recovered F&A costs (Decker, et al., 2007; Dooley, 1995; Johnson, 1991; Ortale, 2001).

Faculty Members' Reaction to Services Provided by Sponsored Programs Office

Carr, et al. depicted the ideal sponsored programs office, from the perspective of a faculty member, in the following manner: "Sponsored projects offices at institutions of higher education are responsible for encouraging and assisting faculty as they work to acquire grant funding for research, scholarly and creative activity (RSCA)" (Carr, et al., 2009, p. 70). Typically, a significant portion of recovered F&A costs is used as a source of revenue to operate a sponsored programs office at a college or a university in the United States (Norris, 2002). A sponsored programs office typically supports academic research endeavors with services such as the identification of potential funding opportunities, assistance with the preparation of the application and proposal budget, the review and the submission of the completed application to the sponsoring agency, negotiating the terms and conditions of an award, posting project expenditures against the project award, other types of accounting services, as well as numerous research compliance certifications (Norris, 2002).

Colleges and universities also depend upon their sponsored program offices to assist, as well as encourage, faculty members with successfully attaining grant funding for sponsored research activities (Carr, et al., 2009). Without the presence of sponsored research administrative offices at academic research institutions, ultimately the university suffers the penalties for mismanagement of sponsored research with the consequences ranging from damage to the university's reputation to disqualification from receiving sponsored research awards from any federal sponsor (Norris, 2002).

One faculty member offered the following opinion of sponsored research administration within academia: “Having observed the research scene for many years at three universities both as investigator and dean, I am struck by the failure of administration to recognize their duty to facilitate—not impede—faculty research” (Decker, et al., 2007, p. 39). In a study conducted by Ortale, faculty members viewed writing grants to secure external funding as extremely time-consuming and frustrating due to institutional bureaucracy, increased competition for limited research funds, and spending more time navigating the rules to submit a grant than actually conducting research with awarded funds (Ortale, 2001). A 2007 survey of research faculty members indicated their primary concerns with their offices of sponsored programs included the burden of regulatory requirements, lack of training in grant seeking and grant writing, poor grant proposal development support and the sponsored research award (Carr, et al., 2009; Decker, et al., 2007).

One research study of an academic sponsored programs office focused on two areas: the perceived barriers faculty encounter in their pursuit of external funding and the incentives academic institutions offer faculty members to engage in sponsored research activities (Dooley, 1995). A survey of Texas A&M faculty members revealed the following concerns (Dooley, 1995):

- 42% felt it was very important to prepare a grant proposal but only 4% had adequate time to prepare proposals and meet internal deadlines set by the office of sponsored programs (OSP),
- 93% believed it was very important to have support services for sponsored research activities but only 18% received support from their OSP,

- 71% felt it was very important to have assistance with preparing proposals for submission to a sponsor yet only 48% received this type of assistance from OSP,
- 78% stated it was very important to receive budget preparation and only 55% received this support from OSP,
- 74% of the respondents believed it was moderately important to very important for OSP to assist with locating funding opportunities but only 59% received this type of pre-award assistance, and
- Only 25% of the surveyed faculty members received adequate technical assistance and had time to use this assistance appropriately.

Another study focused on the reactions of junior faculty members at one university and these future PIs indicated that many of the significant barriers to becoming active faculty members were attributed to the lack of training or level of support provided by their office of sponsored programs (Carr, et al., 2009; Cockriel, 2001; Wimsatt, et al., 2009). These perceived barriers included concerns such as inadequate support from OSP to submit a proposal, lack of knowledge of available funding sources, lack of knowledge regarding proposal budget development, and lack of training on seeking and writing grant applications (Carr, et al., 2009; Cockriel, 2001). The study results indicated that faculty members believed their office of sponsored programs should make faculty development workshops on grant seeking, grant budget development, and grant writing a top priority (Carr, et al., 2009; Cockriel, 2001).

University of California faculty members stated they required assistance in developing a complex budget but received minimal support in this area from the institution's

grants accounting office, offices of sponsored programs, and other grants administration personnel. A two-part Delphi study of faculty members yielded the following results (Cole, 2007):

- 46.9% believed assisting with preparing proposals, budgets, forms and streamlining the pre-award process as a top priority,
- 58.1% requested that sponsored research administrators “help more and become less of an enforcer” (p.21),
- 68.8% of the participating respondents indicated a top priority was an efficient bureaucratic process as it relates to procurement with external funds, sponsored research accounting and financial status reports for the funded research projects, and
- 68.8% of the participating respondents requested that sponsored research administrators “reduce the time researchers spend with administrative and paper work duties” (p.23).

The results from the aforementioned study suggested that junior faculty members find research activity extremely intimidating without prior proposal development experience, support from the office of sponsored programs, or a mentor within their department (Carr, et al., 2009; Cockriel, 2001). From the junior faculty members’ perspective, the necessary changes to the sponsored research bureaucracy include a reduction in the implementation of arbitrary policies and procedures, be receptive to the views of research faculty, a reduction in the rigid attitudes when responding to research faculty inquiries, the greater purpose of the existence of sponsored programs offices is service, and increased sensitivity to the limited

time faculty members have to prepare a complete proposal (Carr, et al., 2009; Cockriel, 2001; Cole, 2007; Wimsatt, et al., 2009).

The sponsored programs office at Loyola Marymount University understood that an increased emphasis on research may increase “tensions regarding the tenure process as well as faculty responsibilities as instructors and scholars” (Carr, et al., 2009, p. 72). To lessen apprehension within their sponsored research community, the research administration applied the principles of distributive justice to their business practices and utilized recovered F&A costs to provide additional services from the sponsored programs offices (Carr, et al., 2009). The effect of the sponsored programs office’s concert with reaction of faculty members was evident in the responses from a survey regarding the Loyola Marymount University Office of Sponsored Programs. The respondents overwhelmingly had a positive reaction to the additional services provided by the Loyola Marymount University Office of Sponsored Programs. These additional services, funded by recovered F&A costs, assisted with increase in funded sponsored projects, almost tripling within five years of the aforementioned changes (Carr, et al., 2009).

Faculty Members’ Reaction to Minimal or Nonexistent Return of Recovered F&A Costs

A 1997 study of the entire research faculty community at the University of California revealed the negative attitudes towards F&A cost rates, the university’s use of recovered F&A costs, and the limited or nonexistent return of these funds to the faculty member’s college or department were so significant that many faculty members were considering leaving the University of California system (Mitteness & Becker, 1997). From the standpoint of these faculty members, the alleged profit as a result of sponsored research activity should have been committed to improving the research environment, not allocated in

a manner that primarily benefits sponsored program offices and research administrators. The University of California research faculty respondents believed the “way that indirect costs funds are confiscated and used for purposes other than research support is terrible” (Mittiness & Becker, 2007, p.18). Watt and Higerd suggested that “leaders of academic institutions rarely view their facilities as the largest investment the institution possesses” (p. 48, 2007). Johnson (1991) offered the following opinion:

Faculty need to be much more involved in planning university infrastructure development and renovation because, until a better system comes along; researchers will pay for poor decisions that raise indirect costs. They will do it by surrendering some of the dollars they could have applied directly to their research. (p. 218)

From the University of California Delphi study, 67.8% of the respondents stated that sponsored research administrators should “return a significant part of the overhead or indirect cost to the college, department and faculty member” (Cole, 2007, p. 22). Data obtained from a 1995 study of selected faculty members involved in sponsored research insisted “that many institutions (45%) only sometimes or never return even a portion of the indirect costs derived from successful externally funded projects to those individuals and departments who were instrumental in acquiring the projects” (Monahan, 1995, p. 38). The aforementioned study also indicated the faculty members’ reaction that “most colleges and universities prove more in the form of policies, practices, training and other services than financial and other institutional resources (e.g. release time as incentives for faculty to engage in sponsored project activities)” Monahan, 1995, p. 39).

In addition, some faculty members do not use the expensive laboratories or equipment and believe it would be fair if their sponsored research projects were assessed

using a lower F&A rate to recover less F&A costs (California State University-Chico, 2010). A distributive, equitable share of contributing to the amount of recovered F&A costs would include the expenses associated with animal care, human subjects, central administration, sponsored research accounting, and other grant or contract services connected to sponsored research activities (California State University-Chico, 2010).

Faculty Members' Reaction to Recovered F&A Funds Used for Administrative or Clerical Support

The authors of a 1995 study suggested “that release time, reduced assignments, graduate and research assistants, and other forms of administrative support are significantly predictive of success as measured by amount of dollars awarded” (Monahan, 1995, p. 36). Typical administrative functions include, but are not limited to: managing the research personnel being paid from the funded project, hiring new personnel for the research project, purchasing, supervising student research assistants, and serving as the compliance officer (Decker, et al., 2007).

The increased demand for successful academic sponsored research activities requires not only more faculty members; this demand also creates the necessity for additional post-doctoral researchers, graduate research assistants, associate professors, and other types of staff members. Many of these positions are created for and completely funded by extramural research funds (Briar-Lawson, et al., 2008). As the administrative tasks for faculty members increase and become a burden, the “issues of adequate support and respect for individual faculty members take on more importance” (Wimsatt, et al., 2009, p. 3). One recent example of how the academic research enterprise is directly supported by recovered F&A costs occurred at Loyola Marymount University. Direct support at this university included the

addition of two research administrators, a compliance director, and a pre-award administrator which “resulted in a near tripling of award from \$2.3 million in 2004 to \$6.5 million in 2009” (Carr, et al., 2009, p. 72). If additional recovered F&A costs were returned to the faculty member, the administrative burden could be decreased. Li (2003) indicated that “the administrative burden falling directly upon investigators rarely is reimbursed, since it does not appear as a direct line charge on grants”(p. 9).

In 2005, the Faculty Standing Committee of the Federal Demonstration Partnership (FDP) surveyed 6,081 research faculty members about their reactions regarding various research activities required to receive federal funds. The FDP study was the first significant attempt to acknowledge the importance of reactions from faculty members at the nation’s leading research universities and colleges (Wimsatt, et al., 2009). The authors of the FDP study indicated the administrative burden of being a faculty member was “growing past the point of reasonable management by many researchers” (Wimsatt, et al., 2009, p.6). Many respondents believed that more of the recovered F&A costs should be specifically allocated to administrative support for faculty members and less of the recovered F&A costs being allocated to the institution’s general overhead accounts (Wimsatt, et al., 2009). A significant number of respondents participating in the FDP study specifically mentioned “the need to remedy the allocation of indirect cost returns, with a reasonable portion going toward faculty and departmental support of the associated research” (Wimsatt, et al., 2009, p. 10). In addition, Decker, et al. (2007) postulated from the results of their study that if more recovered F&A revenue was allocated to administrative assistance then faculty members would have approximately 28% more available time to perform research activities instead of spending the majority of their time burdened with project administration tasks.

At the University of Texas at Austin, the sponsored research administration has diverted recovered F&A costs to sustain its research enterprise with a dedicated research center within an academic college. The research center provides funding opportunity information, review of draft grant proposals, reviews the grant application forms for errors, grant budget assistance and secretarial support to entice faculty members to become active faculty members (Briar-Lawson et al., 2008). The recovered F&A costs were used to provide administrative and clerical support to every faculty member within the University of Texas at Austin's school of social work and as a result, the school of social work increased awarded projects to more than \$29 million in 2008 (Briar-Lawson et al., 2008). From the review of available literature, sponsored research success from use of recovered F&A costs to provide clerical or administrative support to faculty members is not limited to the University of Texas at Austin. The success of the sponsored research activities at the University of Illinois at Urbana-Champaign were attributed to using recovered F&A costs to provide institutional research administrative support for pre-award as well as post-award activities (Briar-Lawson et al., 2008).

In some instances where colleges and universities did provide general research support, these efforts were not always adequate. For example, grant-funded administrative assistants who should devote 100% of their effort towards the funded sponsored project are often used to perform general tasks that support the teaching mission of the college or university, thereby diminishing the support for research (Mitteness & Becker, 1997). According the responses from faculty members participating in the FDP survey, the following opinions were expressed by the respondents (Decker, et al., 2007):

- 42% of the faculty members spent more time on administrative responsibilities than research activities,
- 95% could devote more time to research activities if the administrative burden was reduced with increased support of the academic research enterprise,
- 98% believed other personnel could perform some of the administrative tasks currently assigned to faculty members, and
- 66% were willing to adjust their sponsored project budget, if allowed, to include funds for project administrative tasks.

Institutional Perspective Regarding the Use of Recovered F&A Costs

The overall institutional reaction is that the ability to recover F&A costs is as follows: it is necessary to the research enterprise, any discussion regarding recovered F&A costs is typically an issue of relevance between the institution and the federal sponsor, and faculty members have a tendency to underestimate the importance of recovering F&A costs associated with sponsored programs (California State University-Chico, 2010). A 2005 report issued by a group of research administrators stated that the decline in available federal funding for academic research is viewed as the most significant trend “affecting the nation’s research universities” (Welker & Cox, 2006, p. 9). According to Sedwick (2009), “doing more with less has become the mantra of research administration” (p. 22) at most research universities and colleges. Other sources of revenue to support research include revenue from student tuition, endowment income, philanthropic donations, and state appropriations to public institutions of higher education (Council on Government Relations, 2008).

Academic institutions involved in sponsored research can use recovered F&A costs as unrestricted revenue for any identified budgetary need, if necessary, within the institution to

counteract declines in available revenue (Mittness & Becker, 1997; Ortale, 2001). The unrestricted revenue available to administrators for research is decreasing each fiscal year. The funds derived from sponsored research activity have become “interwoven with the fabric of an institution; the loss of such funds can have dramatic negative effects on an institution’s academic programs and financial plans” (Norris, 2002, p. 6).

The entire sponsored research community is dealing with diminishing resources and must consider the necessity of increasing external funding or face the possible consequences of losing many academic and research programs (Dooley, 1995). For example, economic downturns could force university administrators to make fiscal decisions, such as reducing student support payouts from endowments or investments in other research areas such as salaries, programs, or research facilities (Ashburn, et al., 2008). A change in federal policy, such as a cap on any F&A costs associated with sponsored research activities, has the potential to generate the following outcomes: institutions not accepting research award due to involuntary cost share from F&A limitations; the research facilities become a liability to the institution due to deterioration; institutions cannot afford the mandated compliance costs, and the possible increase in student tuition to cover unfunded research costs (Association of American Universities, Council on Government Relations, National Associations of State Universities and Land-Grant Colleges, 2007).

Effect of External Economic Changes

U.S. colleges and universities conducting sponsored research projects have a difficult time with providing research laboratories and other facilities due to the recent economic downturn, as well as the general decline in the stock market (Bienenstock, 2002). For example, declining external economic factors “have led to decreased endowment yields,

decreased tax income, and decreased contributions from donors” (Bienenstock, 2002, p.35).

To address budgetary shortfalls in research support, some institutions have increased student tuition, increased the use of funds from endowments, hired more adjunct instructors instead of tenure-track faculty, and borrowed funds from auxiliary units (Ashburn, et al., 2008).

Due to the increase in economic pressures, sponsored research administrators struggle with their ability to “manage for research, to facilitate the grants process, to collaborate with the faculty, and to mediate among the conflicting interests” (Hansen & Moreland, 2004, p. 48).

Colleges and universities are being forced by external economic factors to cost share more of the F&A costs associated with conducting research. Currently, cost share of the F&A costs is occurring at the same rate as when the academic research enterprise was beginning in the late 1940s (Goldman, 2000).

When public colleges and universities use tuition increases to compensate for the shortfall in recoverable F&A costs, this situation “is now endangering the core public mission of affordable undergraduate access” (Newfield & Barnett, p. 2, 2010). For over 20 years, college and university tuition costs have been rising at twice the rate of inflation (Carey, 2009). Students often borrow a significant amount in student loans to pay rising tuition costs. Carey suggested that “tax-advantaged 529 plans have not solved the growing risk that students will borrow too much and default on their loans” (Carey, 2009, p. 1).

In 2008, Vassar College had to use a contingency fund and endowment earnings due to an increase of \$1 million more in student financial aid than initially expected for that fiscal year (Ashburn, et al., 2008). According to Hoffmann’s observations, budget cuts within an academic department involved in research are offset by decreasing financial resources to undergraduate education such as “faculty replacements and teaching assistants” (Hoffmann,

2009, p. 1). Ph.D. students in the science, technology, engineering and mathematics (STEM) disciplines typically have their tuition and other educational expenses paid by sponsored research funds, not through student loans or industry contributions (Hoffmann, 2009).

To support graduate research assistants with salaries and tuition waivers, faculty members must submit numerous grant applications in order to secure external sponsored research funds (Hoffmann, 2009). In 2000, the average cost of unrecovered F&A costs was approximately \$1000 per student attending a research-focused institution of higher education in the United States (Bienenstock, 2002). Hoffmann observed, “Perhaps someday, we’ll find a way to deal with budgetary constraints in a manner equitable to both research and education but at a research university, it is unconscionable that most of the cuts now come from the latter” (Hoffmann, 2009, p.3).

Colleges and universities are carrying more debt in order to maintain current business operations. Currently, “most colleges devote around 5% of their budgets to debt service, compared with around 3% 20 years ago” (Ashburn, et al., 2008, p. 1). Another emerging revenue crisis is that banks have either stopped lending money to higher education institutions or charging them higher interest rates or variable rates (Ashburn, et al., 2008). In addition, most institutions are now allocating five percent of their annual budgets to debt service in contrast to three percent 20 years ago (Ashburn, et al., 2008). If the current economic downturn continues for several years, university administrators may be forced to make additional difficult fiscal decisions, such as reduced student support from endowments or investments in other areas such as salaries, programs, or facilities (Ashburn, et al., 2008).

Large research universities have started to invest their endowments in “small start-up companies versus the historical fiscal practice of investing in stocks and bonds” (Ashburn, et

al., 2008, p. 3). Two of the available funding sources for research are currently in a state of decline: endowments and research funds. The current economic environment in the United States has reduced lines of credit available to higher education institutions and has contributed to endowment earnings losses for many colleges and universities (Ashburn, et al., 2008). In early 2009, a survey conducted jointly by the *Chronicle of Higher Education* and *Moody's Investor Services* predicted that through fiscal year 2010, colleges and universities would have difficulty with their fundraising efforts, experience decreasing annual funds, and possibly see a necessary reduction in the number of foundation employees that are responsible for fundraising (Masterson, 2009). This type of fiscal environment would affect smaller institutions more than larger research institutions based upon economies of scale and the inability to subsidize research. Of the 214 respondents in the *Chronicle of Higher Education* and *Moody's Investor Services* survey, 39% reported a decrease of 10% or less while 17% reported a decrease in annual gifts and endowments greater than 10% (Masterson, 2009). Even the large research institutions are not insulated from economic depressions. At a 2008 Big Ten administrators' conference, the majority of the administrators reported their annual fund accounts decreasing "most in the range of four percent to five percent" (Masterson, 2009, p.3) in the last year. In another instance, one research administrator declared, "For two decades, college costs have been in a bubble, rising at twice the rate of inflation;" the majority of these "college costs" are classified as F&A costs that not only affect the viability of research but the entire infrastructure of the entire institution (Carey, 2008, p.1).

An example of the effect of available revenue sources from endowments and gifts given to the institution becoming increasingly scarce occurred at Winona State. The vice

president for university advancement shared the story of a loyal 80 year-old alumnus who could not give as much due to a \$750,000 loss in his Wachovia investment account (Ashburn, et al., 2008). In 2009, Purdue University reported a decline in annual gifts of 10%, Tufts University reported a 15% decline in annual gifts, and Fordham University stated a decline of 25% to 50% in annual gifts when compared to the amount of philanthropic gifts from donors reported in the previous fiscal year (Masterson, 2009). As the amounts of financial gifts or donations to colleges and universities continue to decline, this decline will more than likely lead to personnel cuts or furloughs estimated at 10% of the current staff positions working in foundation offices (Masterson, 2009).

Historically, the primary sources for unrestricted funds to support research varied between the public and private research colleges or universities. Public research institutions depended upon state appropriations, and the private research colleges and universities funded research activities through student tuition revenue (Council on Government Relations, 2008). In response to the 2008 economic decline due to the stock market downturn, colleges and universities began to alter how they conduct business (Ashburn, et al., 2008). One noteworthy change is the increasing use of recovered F&A costs as a source of unrestricted revenue as the operational budgets, both at the various federal agencies and within academia, are decreasing at a significant rate (Norris, 2000; Sundberg, 1991). Under these economic conditions, decisions made by college or university research administration to use recovered F&A costs to immediately address institutional budget crises conflicts with the aforementioned faculty members' reaction regarding the use of these funds generated by funded research projects.

Cost of Research Infrastructure

Studies focusing on the sponsored research occurring within higher education indicated that the recovered F&A costs from a grant award rarely cover the actual F&A costs required for a research project (Watt & Higerd, 2007; Wimsatt, et al., 2009). For example, many institutions do not waive or discount F&A costs on an award from a non-federal sponsor (Li, 2003). In addition, public and private research universities receive the majority of their research funding from federal sources and these sources are seeking methods to reduce F&A costs (Council on Government Relations, 2008). On average, “public universities receive 30 percent of their total research revenue from federal grants and contracts while private research universities receive 31 percent” (Council on Government Relations, 2008, p.4). According to Norris, “governmental agencies exert pressure to reduce F&A costs because they see the growth of F&A costs as a diversion of funds from the direct cost objectives of the sponsored project (Norris, 2000, p.41).” Federal actions related to sponsored research activities are often unilateral actions with little regard for their implications upon the higher education research enterprise (Li, 2003).

Norris (2002) stated that “the 1990s, clearly, was viewed by many as the decade of compliance as sponsored projects offices assumed more and more responsibility for developing and managing a wide range of compliance issues” (p.5). Watt and Higerd (2007) put forward the opinion that the quality of research facilities as a university or college is crucial to the leadership’s ability to “recruit and retain talented research faculty members” (p.48). Due to the increasing institutional subsidy of research activities by academia, college and universities sponsored research administrators had a compelling motive to maximize F&A cost recovery and allocated the majority of recovered F&A costs to the institution’s

general overhead cost accounts (Association of American Universities, Council on Government Relations, National Associations of State Universities and Land-Grant Colleges, 2007). The universities and colleges in the United States have significant tangible, as well as intangible, components to support the academic research enterprise, but “there still exists a real and growing imbalance between the available resources and the mandatory outlays of the nation’s research universities” (Council on Government Relations, 2008, p. 17). Currently, research universities have limited revenue to fund the necessary infrastructure in support of an increased emphasis for research (Council on Government Relations, 2008, p.1). As limitations are placed on the F&A cost rates allowed for Federal research grants, this shifts the cost of research being borne by the Federal government to the research universities and colleges (Munro, 2007).

When federal sponsors shift the burden of F&A costs to higher education institutions, this becomes a financial burden to colleges and universities. This trend has “reduced research productivity, led to inadequate research management, and has almost certainly prevented access to research universities by qualified students who happen to be poor” (Bienenstock, p. 33, 2002). This burden of additional costs to engage in sponsored programs endeavors has made colleges and universities the second leading sponsor of research in the United States by providing approximately 20% of the total institutional research expenditures (Association of American Universities, Council on Government Relations, National Associations of State Universities and Land-Grant Colleges, 2007). The previously mentioned restrictions placed on the amount of recoverable F&A costs from federal research grants, shifts the costs associated with sponsored research from the federal funding agencies to the research colleges and universities (Munro, 2007; Office of Science and Technology

Policy, 2000). The data from the Office of Science and Technology Policy (2000) indicated that “the consequences of such shifting are likely to be reductions in total support for research, reductions in total funds spent by universities on other aspects of education, or tuition increases” (p. 11). According to a recent study from the Council on Governmental Relations (COGR), the “under-recovery of reimbursement” (Council on Government Relations, 2008, p.10) results in a college or university being forced “to cover the unreimbursed costs through other unrestricted revenue sources” (p. 10). The ever-increasing financial challenge for universities and colleges to subsidize more of the total costs associated with research may eventually prohibit some institutions from pursuing research opportunities solely due to the institution’s financial restraints (California State University-Chico, 2010).

Other trends, such as increases in compliance costs, an increase in collaboration with other institutions resulting in numerous subawards, and the cost of electronic research administration (ERA) affect the research colleges and research universities engaged in sponsored research activities (California State University-Chico, 2010; Watt & Higerd, 2007; Welker & Cox, 2006). Since 1988, there have been 23 new federal regulations associated with research compliance and certifications that are required before colleges and universities can receive federal research funds (California State University-Chico, 2010). Dummer (1995) made the following observation regarding research compliance and certifications: “We have learned over and above fiscal accountability, our institutions are being judged by how rigorously they comply with regulations directed not only how they conduct research but also how the researchers conduct themselves” (p.14). For example, the infrastructure

resources available to the sponsored programs offices are notably inadequate to provide administrative oversight of the entire research enterprise (Cole, 2007).

The follow statement summarizes the potential effect of increasing research infrastructure costs and limited financial resources (Goldman, Williams, Trey, Adamson, Rosenblatt, 2000):

Ultimately, how much the federal government should provide for these infrastructure costs is a question of policy. But if the federal government reduces support for infrastructure, universities may well opt not to construct new facilities or modernize old ones. In this case, universities will have less capacity to pursue scientific research. (p.69)

When universities and colleges either build new research facilities or renovate old ones, the cost of construction includes satisfying federal environmental standards, as well as obtaining permits from state or local authorities (Goldman, 2000). The cost of building, as well as maintaining, research facilities has a direct effect upon the negotiated F&A rate agreement of the college or university. According to an Association of American Universities statement on the subject of F&A costs, the difference in F&A rates “are attributable to differences in space-related costs” (Association of American Universities, Council on Government Relations, National Associations of State Universities and Land-Grant Colleges, 2007, p. 3). Other federal certifications that must be met to receive funding include operations and maintenance costs, such as required utilities costs for laboratory ventilations, as well as personnel and materials to maintain waste storage tanks (Goldman, 2000).

The increasing complexity of sponsored research awards in combination with the trend of decreasing state appropriations due to economic factors also has a negative effect upon a university or college to conduct research (Watt & Higerd, 2007; Wimsatt, et al., 2009). The growing complexity associated with sponsored research awards adds a significant financial burden to the academic institution to support sponsored research activity. Research institutions must provide administrative oversight to certify compliance with numerous federal regulations associated with national security, procurement, conflict of interest, export control, laboratory safety, and the use of animals or human subjects in sponsored research (Decker, et al., 2007; Research Support Policy Committee, 2004).

Changes in Federal Fiscal Policy Regarding Sponsored Research

When federal agencies receive their Congressional appropriation to fund research projects, typically there is no distinction made between direct cost funding and the funding available for F&A costs (California State University-Chico, 2010). Elizabeth Mora, senior sponsored research administrator at Harvard University, noted the federal sponsors “negotiate cost savings (which it sees as the difference between the rate proposed by the institution and the final negotiated rate) as a tremendous cost-saving technique” (Li, 2003, p. 14). Research administrators at academic research institutions see this process as cost-shifting the actual cost of conducting research. In fiscal year 2002, the amount of costs shifted from the U.S. Department of Health and Human Services (DHHS) to institutions of higher education was estimated at \$465 million (Li, 2003). According to Goldman (2000), “When research was a relatively small enterprise, universities could more readily share the costs with the federal government” (p.12).

Federal policy for sponsored research projects includes increases in the sponsored research representations, certifications, and monitoring compliance with minimal increases to negotiated F&A rates resulting in these policies becoming unfunded mandates (Li, 2003; Research Support Policy Committee, 2002). Another example of the effect of federal policy change is the limitation on specific costs allowed in the calculation of the F&A rate. During the late 1990s, the General Accounting Office (GAO) estimated the 26% limitation on administrative costs resulted in an annual savings of \$104 million for federal funding agencies (Office of Science and Technology Policy, 2000). The Council on Governmental Relations (COGR) reported in 2003 that due to the 26% administrative cost cap, higher education institutions experienced a \$1 billion shortfall in the recovery of F&A costs (Council on Government Relations, 2008; Li, 2003).

In 2006, COGR reported research universities had subsidized at least \$1.8 billion in sponsored research activities “through institutional financial support and unreimbursed F&A” (Council on Government Relations, 2008, p. 12). According to Robert Berdahl, president of the Association of American Universities, “the average indirect cost recovery rate has remained at about 51% for a decade despite the rising cost of supporting research” (as cited in Bhattacharjee, 2007, p.1). College and university administrators are faced with other issues related to reduced F&A costs and research. In 2006, research universities had subsidized research “through institutional financial support and unreimbursed F&A “in the amount of \$1.8 billion” (Council on Government Relations, 2008, p. 12). In a recent survey of research faculty, 68% believed that returning a significant portion of recovered F&A revenue should be returned to the faculty member, the department, and the college awarded the grant (Sedwick, 2009). Two possible revisions to federal policies pertaining to F&A

limitations would be that research universities should be allowed to charge administrative support as a direct cost within the sponsored project budget and the 26% administrative cap should be raised or eliminated when institutions are negotiating their F&A rate agreement (Sedwick, 2009).

As a result of the fluctuating and the eventual decline in federal support of academic research, higher education institutions' dependence upon maximizing the allowable amount of recoverable F&A costs increased. In the 1970s, the average F&A rate was 30% of MTDC, in the 1980s the average F&A rate was 52-53% of MTDC, and the current average F&A rate is 50-51% of MTDC (Knezo, 2010). According to a research administrator forum, the result of under-recovered F&A costs to a college or university is that it affects future negotiated F&A rate agreements for the college or university (Council on Government Relations, 2008). The reason future F&A rate agreements are affected by the under-recovery of previous years is due to the formula to determine the F&A rate. The rate is calculated by dividing an institution's total amount of recoverable F&A costs incurred in the previous fiscal year by the total direct costs of research minus certain items of cost, per the guidance from OMB Circular A-21 (Office of Management and Budget, 2004). College and university administrators are faced with other issues related to reduced F&A costs and research. An example of the severity of under-recovery of allowable F&A costs, the National Institutes of Health (NIH) provided over \$15 billion to fund research projects at U.S. colleges and universities in 2007, of which approximately \$8 billion was provided to higher education institutions as F&A cost revenue recovery (Munro, 2007, p.1). The aforementioned \$8 billion did not represent recovery of all applicable F&A costs that higher education institutions were entitled to receive (Munro, 2007).

Fiscal policy changes pertaining to sponsored research efforts are initiated by the sponsor and often bring about a change in the amount of funds available in direct costs and F&A costs. Many federal funding agencies exert pressure upon academic research institutions to reduce F&A costs associated with sponsored research activities. In general, these governmental agencies see the escalation of F&A costs “as a diversion of funds from the direct cost objectives of the sponsored project” (Norris, 2002, p. 41). According to a 2005 survey of research administrators, 42% of the respondents believed the importance of recovered F&A costs are not considered to be of significant importance by federal funding agencies when these agencies are reviewing proposals to be considered for funding (Welker & Cox, 2006). Federal policy changes include practices such as “agency restrictions on the F&A rate, cost-sharing obligations (voluntary and involuntary), research compliance costs, and the 26% administrative cap in the federal F&A rate formula” (Council on Government Relations, 2008, p.13).

Johnson (1991) suggested two objectives to reduce the effect of federal fiscal policy changes: “(1) to see that the government pays all of, but only, its reasonable share of the administrative costs of research and (2) the university be freed of the burden of justifying individual costs, some of which are bound to be controversial” (p.280). In addition, to make the calculation of recoverable F&A costs more precise, as well as equitable, “it would require an extreme (and costly) accounting effort to attribute a different F&A cost to each grant” (California State University-Chico, 2010).

Reduction in Available Federal Research Funds

The overall reduction in federal grants in turn diminishes the amount of reimbursed F&A costs to the institution of higher education. Federal sponsors often treat sponsored

research as “a commodity” (Hansen & Moreland, 2004, p.46) instead of as an academic institution generating new knowledge or contributing to a body of knowledge. This federal expectation for research institutions remains, but the agencies that sponsor research are decreasing the amount of funds available. According to a 2007 National Science Foundation (NSF) survey, the trend of declining federal funds for research is unprecedented in the 34 years NSF has collected this type of data in their annual survey (Britt, 2008). Another negative aspect in the lack of available federal research funds is that this also hinders a university’s ability to attract and retain world-class research faculty members that often are awarded multi-million dollar grants to conduct research in their areas of expertise.

The expectation for research institutions remains, but many of the federal agencies that sponsor research are decreasing the amount of funds available. For example, in fiscal year 2005, 64% of academic research funds came from federal sources, but in 2007 the percentage decreased to 62% (By the numbers, 2008). In 2008, the Defense Appropriations Subcommittee wanted to significantly cut grant and contract funds to academic institutions for research (Munro, 2007). In addition, as sources of funding for academic research shifts from federal funding to industry sponsored research, then the focus of research is providing the company with desired results thereby reducing the integrity of sponsored research projects performed by institutions of higher education (Greenberg, 2007). The institutions’ administration must determine how to best use the available fiscal resources to support research in the current environment of declining Federal research funding (National Science Foundation, 2008, p. 1). This decline in available research funding from federal sponsors directly affects both direct and F&A costs available to universities, which in turn requires

these institutions to seek other revenue sources such as tuition, endowments, and other unrestricted funds to support their research mission.

Faculty Members Do Not Understand the Importance of Recovered F&A Cost Use

At a professional forum, participating research administrators shared their opinions and believed that federal agencies believed recovered F&A costs provided colleges and universities a federally funded profit margin when engaging in sponsored research endeavors (Li, 2003). With increasing frequency, the limitation on the full recovery of allowable F&A costs results in federal funding agencies not providing the negotiated share of F&A costs to academic research institutions, thereby increasing the institution's financial contributions to support sponsored research activity (Bienenstock, 2002; Council on Government Relations, 2008). These research administrators also believed the faculty members' perceptions of recovered F&A costs as a profit or slush fund for the institution is a misconception that appears to have a disproportionate effect upon the academic research community (Li, 2003). In addition, these sponsored research administrators also expressed the opinion that many faculty members need to be reminded that sponsored research awards are made to the college or university, not the individual faculty member (Li, 2003).

Norris (2000) suggested that a college or university "must support the faculty member for performing the tasks and activities associated with the funded research project. In this way, the institution is a service provider to the client (the faculty member) (p. 5)." Some faculty members believed if federal sponsors reduced the amount of recoverable F&A costs they would allow within a sponsored project budget, there would be more direct cost funding available for their research project (California State University-Chico, 2010). As the amount of recovered F&A costs declines, the college or the university involved with sponsored

research endeavors “will be forced to cut services, staff and faculty positions, reduce available project space and trim other expense so that any initial advantage will be undermined or completely outweighed by later disadvantages” (California State University-Chico, 2010, p.4). Specifically, it must be understood as well as accepted by all members of the academic research community that F&A cost recovery not only helps offset the research costs, this recovered revenue also assists the academic institution with the financial risk associated with new research facilities and other costly research infrastructure expenditures (Association of American Universities, Council on Government Relations, National Associations of State Universities and Land-Grant Colleges, 2007).

Zemsky made the following observation regarding the present state of the academic research enterprise: “In an enterprise that is often caricatured as being obsessively devoted to talk, the larger truth is that today the members of academic communities do not talk enough.” (2006, p. 213). According to Norris (2002), “business and sponsored programs offices should educate their campuses as to the structure and purpose of F&A costs and help eliminate the myth that F&A costs are profits to an institution” (p. 42).

Summary

Research universities and colleges in the United States have made significant contributions to society through decades of research that led to scientific discoveries or social reform and share the common mission of instruction, research and public service (COGR, 2008). These institutions of higher education continue to create new knowledge or improve existing knowledge via sponsored program activities, as well as other types of research endeavors. The majority of external revenue to support the research endeavors of colleges and universities is provided to them by various governmental agencies in the form of a grant,

a contract, or a cooperative agreement. These federally funded research awards not only provide funds for the direct costs of a sponsored project, but also provide the indirect cost costs associated with engaging in sponsored research activity. In addition, PIs have the vested interest in keeping the amount of recovered F&A costs as low as possible; college and university administrators want to collect the maximum allowable amount of F&A costs from funded sponsored programs (Knezo, 1997; McPherson & Schapiro, 1996; Wimsatt, et al., 2009).

To overcome the implied historical disconnect and the distrust between administration and faculty members associated with the use of recovered F&A costs, it is the responsibility of the institutional leadership to start the dialog regarding this specific issue (Zemsky, 2006). In addition, it appears that when the use of recovered F&A costs by the institution is determined by meritocratic processes, this creates conflict that can affect the entire academic research enterprise. Cole (2007) shared this thought regarding the academic research enterprise environment and issues such as recovered F&A costs: “Imagine a university where faculty and research administration rather than strife, manipulation, placing blame, and disallowances, a system where research administrators are empathetic and helpful and received accolades and recognition from faculty” (p.14).

The lack of research associated with the faculty member’s perception of institutional use of recovered F&A costs from sponsored programs projects is a potential challenge to the success of the academic research enterprise (California State University-Chico, 2010; Wimsatt, et al., 2009). The latent effect of faculty members choosing to not be involved in sponsored research activity based upon their negative reaction to the institution’s use of recovered F&A costs could, potentially, result in a decline of total sponsored research awards

from sponsors. A decline in sponsored research awards to academic institutions would not only affect faculty members, but it could result in the deterioration of the overall research and development capabilities in colleges and universities and eventually of the United States (Council on Government Relations, 2008; Welker & Cox, 2006).

CHAPTER THREE: METHODS

The success of the academic research enterprise relies on the effective partnership between faculty members and sponsored research administration (Wimsatt, et al., 2009). In addition, the declining amount of available research funds, both federal and private, requires colleges and universities administrators, as well as faculty members, to be “knowledgeable and aggressive” in securing external research funds (Cockriel, 2001, p. 1). A significant impediment to the success of the academic research enterprise is the disagreement regarding how recovered F&A costs from sponsored programs are used to support the academic research enterprise (Cockriel, 2001; Cole, 2007; Decker, et al., 2007; Dooley, 1995; Hoffman, 2009; Mitteness & Becker, 1997; Ortale, 2001; Sundberg, 1991). The use of recovered F&A costs dispute is between the primary groups vital to the academic research enterprise—the faculty members and the administration responsible for sponsored research activity. Studies and reports addressing issues associated with recovered F&A costs are primarily from the perspective of federal sponsors or sponsored programs administrators, not from the perspective of faculty members.

To examine the potential effect of the faculty member’s perception of how the institution uses recovered F&A costs, the following research questions were used for this study:

1. What effect, if any, does the institution’s overall use of recovered Facilities and Administrative costs have on the faculty member’s decision to engage in sponsored research activities?

2. What effect, if any, does the institution's justification for the use of recovered Facilities and Administrative costs have upon the faculty member's decision to engage in sponsored research activities?
3. What effect, if any, does the faculty member's perceived benefit of the support services provided by the sponsored programs office have upon her or his decision to engage in sponsored research activities?
4. What effect, if any, does percentage of recovered Facilities and Administrative costs returned to the faculty member have on the faculty member's decision to engage in sponsored research activities?
5. What effect, if any, does the amount recovered Facilities and Administrative costs used to provide administrative/clerical support for the faculty member's sponsored research activities have upon her or his decision to engage in sponsored research activities?

Population and Sample

The following West Virginia institutions of higher education, including any applicable regional campuses, met the study criterion were as follows: Bluefield State College, Davis and Elkins College, Fairmont State University, Marshall University, Marshall University Graduate College for Educational and Professional Development, Salem International University, Shepherd University, West Liberty University, West Virginia School of Osteopathic Medicine, West Virginia University and West Virginia University Institute of Technology.

The initial population for this study ($N = 3,741$) was comprised of all faculty members at the aforementioned West Virginia institutions of higher education that had a

current negotiated Facilities and Administrative (F&A) rate agreement approved by a federal cognizant agency. The initial population for this study had to be adjusted due to one of the following factors: the e-mail address being incorrect in the online faculty directory, the faculty member did not respond, or an e-mail address was not available for the faculty member in the institution's online directory. An invitation to participate in the study, as well as an electronic link to the survey was sent to the entire adjusted population ($N = 3,292$). As a result, the sample ($n = 3,292$) for this study was equivalent to the adjusted population.

Method of Data Collection

The *Faculty Member Reaction to the Use of F&A Costs* Survey was developed using *Survey Monkey*, an Internet-based survey development and data gathering tool. The survey instrument was administered once to the sample and contained 28 questions. The survey was designed to collect faculty demographic information and measure faculty perceptions by using varying degrees of Likert scales, as well as five open-ended questions to collect any qualitative data pertaining to the study.

A letter was sent to the presidents of all higher education institutions in West Virginia (Appendix C) that met the criteria for being included in the defined population as a token of professional courtesy, as well as open communication regarding the focus of this research. Each letter briefly described the study, provided the electronic link to the survey, and requested access to or the use of the institution's faculty listserv. Due to the perceived complexity regarding the topic of institutional use of recovered F&A costs, the researcher directly secured the information necessary to contact faculty members by using faculty directory information from institutional web sites to obtain e-mail addresses. An initial e-mail invitation was sent to each faculty member's e-mail address with an electronic link to

the questionnaire (Appendix D). Approximately two weeks after the initial e-mail, faculty members received a reminder e-mail with a link to the survey; a second reminder e-mail was sent to faculty members four weeks after the initial invitation to participate in the study.

Purpose

The purpose of this study was to examine if the faculty member's reaction to the various uses of recovered F&A costs by her or his institution affected her or his decision to engage in sponsored programs activities. An important aspect of the study was the ability of the researcher to identify any specific aspects of the faculty members' reaction that are a disincentive to engage in sponsored program activities, thereby affecting the overall economics of the academic research enterprise.

The theoretical framework basis of the research questions and the survey instrument was based on the philosophical theories of Dr. John Rawls: *A Theory of Justice* and *Justice as Fairness: A Restatement*. Specifically, the examination of distributive justice as the practical basis for the social contract between faculty members and institutions of higher education was the basis for the research questions. The research questions were developed from the thematic issues extrapolated from the literature review from the perspective of the faculty member. Numerous authors included in the literature review indicated that faculty members have a predominately negative reaction of the institution's use of recovered F&A costs revenue derived from the faculty members' success in their sponsored programs activities (Cole, 2007; Decker, et al., 2007; Dooley, 1995; Johnson, 1991; Mitteness & Becker, 1997; Ortale, 2001; Sedwick, 2009; Sundberg, 1991; Watt & Higerd, 2007; Welker & Cox, 2006; Wimsatt, et al., 2009).

Design and Instrumentation

The effect of the faculty members' reaction of how the recovered F&A costs generated by their successful sponsored research efforts is used by their college or university was examined by the use of five independent variables and one dependent variable. From the results of the literature review, the following independent variables associated with the faculty members' reaction were developed: the overall reaction of how their institution used the recovered F&A costs revenue, the reaction to the institutional justification for the use of recovered F&A costs, the reaction to the services provided by the sponsored programs office to support their sponsored research effort, the reaction of the amount of recovered F&A costs returned to faculty members, and the reaction of any recovered F&A costs revenue that directly provides the faculty member with administrative and clerical support (Decker, et al., 2007; Mitteness & Becker, 1997; Ortale, 2001). The dependent variable was the faculty member's decision to engage in sponsored research activity.

Survey questions one through five collected demographic data regarding whether the faculty member had been or ever planned to be a principal investigator (PI), the type of involvement with sponsored projects, the faculty member's academic rank, her or his current career path, sex, the faculty member's years of experience with sponsored projects, if applicable, and a description of the faculty member's institution. To determine any possible effect(s) perception may have on a faculty member's decision to engage in sponsored research activity, a Likert scale with five possible responses was used for survey question 11, question 15, question 19, question 23, and question 27. The remaining survey questions accumulated data pertaining to the faculty member's opinions, as well as perceptions, of

various issues associated with institutional use of recovered F&A costs and how these factors affected the faculty member's decision to engage in sponsored research activity.

Instrument Validation and Reliability

To validate the instrument, a panel of experts with significant sponsored research experience was invited to complete the electronic survey, provide feedback on the content, as well as the construct, of the instrument and offer their suggested revisions to the instrument. In addition, a group of doctoral students were asked to provide feedback regarding the content and the readability of the questionnaire. Based upon the comments and the suggestions of these two groups, the survey questionnaire was revised and was created online by the researcher using *Survey Monkey* application software.

Data Collection and Analysis

At the conclusion of the survey, the sample was divided into two groups: faculty members who currently were principal investigators (PIs) and faculty members who were not principal investigators (non-PIs) with 235 of the respondents identifying themselves as PIs, 271 identifying themselves as non-PIs, and 7 faculty members chose not to answer this question. Subsequently, the resulting data were analyzed to determine if there were any differences between these two groups and their responses to one or more of the research questions.

The collected data were analyzed by calculating the frequency distribution for each research question as well as *t*-tests for independent samples to test for any difference between the PI group and the non-PI group regarding their responses to the five research questions.

CHAPTER FOUR: PRESENTATION OF THE RESEARCH FINDINGS

Chapter Four is organized into the following sections: description of the population and sample, methods used for data collection, examination of the significant findings from the study, and discussion of the ancillary findings. The purpose of this chapter is to communicate the findings that addressed the following research questions:

1. What effect, if any, does the faculty member's perception of the institution's overall use of recovered Facilities and Administrative costs have on her or his decision to engage in sponsored research activities?
2. What effect, if any, does the faculty member's perception regarding the institution's justification for the use of recovered Facilities and Administrative costs have upon her or his decision to engage in sponsored research activities?
3. What effect, if any, does the faculty member's perception of the support services provided by the sponsored programs office have upon her or his decision to engage in sponsored research activities?
4. What effect, if any, does the faculty member's perception regarding the percentage of recovered Facilities and Administrative costs returned to the faculty member have on her or his decision to engage in sponsored research activities?
5. What effect, if any, does the faculty member's perception regarding the amount of recovered Facilities and Administrative costs used to provide administrative and clerical support for the faculty member's sponsored research activities have upon her or his decision to engage in sponsored research activities?

Population and Sample

The initial population for this study ($N = 3,741$) was comprised of all faculty members at West Virginia institutions of higher education that had a negotiated Facilities and Administrative (F&A) rate agreement approved by a federal cognizant agency.

The adjusted population for this study ($N = 3,292$) was determined by the total number of e-mails that were sent to faculty members minus the e-mails that were returned for one of the following reasons: the e-mail address was incorrect in the online faculty directory, the faculty member did not respond, or an e-mail address was not available for the faculty member in the institution's online directory. An invitation to participate in the study was sent to the entire population ($N = 3,292$) via e-mail resulting in the population also serving as the sample for this study. From the sample, 513 completed surveys were returned from the 3,292 invitations sent to faculty members.

The current academic rank statuses of the respondents (in order of frequency) was as follows: 33.2% identified themselves as an assistant professor, 31.6% indicated their academic rank as being a professor, 25.3% indicated they were associate professors, and the remaining respondents indicated they held a non-academic rank at their institution. In addition, 81.0% of the respondents described their current career path as seeking a tenured position at their institution. The sample consisted of 200 females, 287 males, and 25 respondents chose not to answer this question. The majority (86.5%) of the faculty members that participated in this study were employed by a public university. The remaining faculty members were employed by the following types of institutions: 8.0% from a public college, 2.5% from a regional campus, 1.8% from a private university, and 1.2% stated they were employed by a private college.

Method of Data Collection

The survey instrument, *Faculty Member Reaction to the Use of Recovered F&A Costs*, was used only once to test the PI group and the non-PI group. The survey questionnaire contained 28 questions that collected faculty demographic information and measured faculty perceptions by using varying degrees of Likert scales as well as five open-ended questions to collect any qualitative data pertaining to the study. Survey questions one through five collected demographic data regarding whether the faculty member had been or ever planned to be a principal investigator (PI), the type of involvement with sponsored projects, the faculty member's academic rank, her or his current career path, sex, the faculty member's years of experience with sponsored projects, if applicable, and a description of the faculty member's institution.

To determine any possible effect(s) perception may have on a faculty member's decision to engage in sponsored research activity, a Likert scale with five possible responses was used for survey question 11, question 15, question 19, question 23, and question 27. The remaining survey questions accumulated data pertaining to the faculty member's opinions, as well as perceptions, of various issues associated with institutional use of recovered F&A costs and how these factors affect the faculty member's decision to engage in sponsored research activity.

Initially, the survey was sent to a group of doctoral students to seek feedback regarding the content and the readability of the questionnaire. Based upon these comments, the survey questionnaire was revised and was created online by the researcher using *Survey Monkey* application software. A letter was sent to the presidents of all higher education institutions in West Virginia (Appendix C) that met the criteria of being included in the

defined population. Each letter briefly described the study, provided the electronic link to the survey, and requested access to or the use of the institution's faculty listserv. The researcher hypothesized that the topic of institutional use of recovered F&A costs may have been a controversial, as well as a complex topic based upon the limited responses from the aforementioned administrators. As a result, the researcher used the online faculty directories to secure all available e-mail addresses for faculty members within the sample.

An invitation to participate in this study was sent to each e-mail address with an electronic link to the questionnaire (Appendix D). Approximately two weeks after the initial e-mail, faculty members received a reminder e-mail with a link to the survey. A second reminder e-mail was sent to the sample approximately four weeks after the initial invitation was sent to all faculty members in the sample. At the conclusion of the study, there were 513 responses ($N = 3,292$) subsequently resulting in a return rate of approximately 15.58%.

The sample was divided into two groups: faculty members who currently were principal investigators (PIs) and faculty members who were not principal investigators (non-PIs); 235 of the respondents identified themselves as PIs, 271 identified themselves as non-PIs and 7 faculty members chose not to answer this question. Subsequently, the resulting data were analyzed to determine if there were any differences between these two groups and their responses to one or more of the research questions.

Significant Findings

Research Question One: What Effect, if any, Does the Faculty Member's Perception of the Institution's Overall Use of Recovered Facilities and Administrative Costs Have on Her or His Decision to Engage in Sponsored Research Activities?

The five possible answers for survey question 11 were scored and assigned a value for the purpose of arriving at a single score that described a faculty member's perception of the institution's overall use of recovered F&A costs. The respondents were asked whether their multiple perceptions regarding their institutions' overall use of F&A costs were *Very Likely* (score value = 1), *Likely* (score value = 2), *Neutral* (score value = 3), *Unlikely* (score value = 4) or *Extremely Unlikely* (score value = 5) to have an effect upon their decisions to engage in sponsored research activity.

For both groups, the mean score was 2.87 with 401 faculty members out of 513 faculty members responding to this question. This mean score indicated the aggregate perception of the institution's overall use of recovered F&A costs had a neutral effect on the decision to become involved in sponsored research activity. The mean score for the PI group was 2.74 with 205 PIs answering this question, and the mean score for the non-PI group was 2.99 with 192 respondents answering this question. These data can be examined in Table 2.

Table 2

Comparison of the Effect of Perception Regarding Overall Use of Recovered F&A

Group	Minimum	Maximum	Mean	Median	SD
Sample	1	5	2.87	3.00	.871
PIs	1	5	2.74	3.00	.922
non-PIs	1	5	2.99	3.00	.796

The Levene's Test for Equality of Variances yielded a value of .000 and the assumption was made that the two groups did not have equal variance as it pertains to the dependent variable. In *SPSS*, the Levene's Test for Equality of Variance determines which *t*-test result is used. The top line of the *SPSS t*-test output is used if the variances are equal and the bottom line is used if the variances are unequal. The result of the Levene's Test indicated the *t*-test result for unequal variance was the correct statistical result.

For this research question, the independent samples *t*-test (two-tailed) generated a *p*-value of .004, indicating a statistically significant difference between PIs and non-PIs and the effect their perceptions regarding their institution's overall use of recovered F&A costs has on their decision to engage in sponsored research activity. The non-PIs had a significantly higher mean score than the PIs regarding the effect perception had on the decision to engage in sponsored research based upon the institution's overall use of recovered F&A costs.

The frequency distribution for the collected data also indicated the perception of the institution's overall use of recovered F&A costs had a neutral effect on the decision to engage in sponsored research activity. Specifically, 46.6% of all respondents indicated their perceptions had a neutral effect on their decisions to engage in sponsored research activity, 10.9% indicated their perceptions were likely to have an effect on their decisions, and 11.1% specified overall use of recovered F&A costs were unlikely to have an effect upon their decisions. In addition, 21.1% of the respondents did not provide an answer to this research question. The frequency distribution for the data is displayed in Table 3.

Table 3

Effect of Perception Regarding Overall Use of Recovered F&A

Effect on Decision	Frequency	Percent	Valid Percent
Very Likely	38	7.4%	9.5%
Likely	56	10.9%	14.0%
Neutral	239	46.6%	59.6%
Unlikely	57	11.1%	14.2%
Extremely Unlikely	11	2.1%	2.7%
Other	4	0.80%	
Missing/Did Not Answer	108	21.1%	
Total	513	100.0%	100.0%

In the PI group, 48.5% of the respondents expressed that their perceptions of overall use of recovered F&A costs had a neutral effect on their decision, 14.5% stated their perceptions were likely to have an effect upon their decisions, and 10.6% indicated their perceptions were unlikely to have an effect regarding their decisions to engage in sponsored research activity. In comparison, 45% of the non-PI group indicated overall use of recovered F&A costs had a neutral effect upon their decisions to engage in sponsored research activity, 8.1% indicated it was likely to have an effect on their decisions, and 11.4% expressed that their perceptions of overall institutional use of recovered F&A funds was unlikely to have an effect upon their decisions.

Overall, the perception of both PIs, as well as non-PIs, had no effect on their decisions to engage in sponsored research activity at their institutions. A neutral perception indicated the institution's overall use of recovered F&A costs did not influence either group

to make decisions to engage in sponsored research activity or not to become involved with sponsored research activity at their institutions. The mean score for the PI group ($\bar{x} = 2.74$) was lower than the non-PI group's mean score ($\bar{x} = 2.99$) and these results indicated that to some degree ($p = .004$), a PI could be affected more by her or his perception of the institution's overall use of recovered F&A than a non-PI.

Research Question Two: What Effect, if Any, Does the Faculty Member's Perception Regarding the Institution's Justification for the Use of Recovered Facilities and Administrative Costs Have Upon Her or His Decision to Engage in Sponsored Research Activities?

All faculty members were asked if their perceptions regarding their institutions' justification associated with the use of F&A costs was *Very Likely* (score value = 1), *Likely* (score value = 2), *Neutral* (score value = 3), *Unlikely* (score value = 4) or *Extremely Unlikely* (score value = 5) to have an effect upon their decisions to engage in sponsored research activity. The data collected from the responses to survey question 15 indicated the majority of PIs as well as non-PI respondents had neutral perceptions of their institution's justification regarding how recovered F&A costs were used.

For both groups, the mean score was 2.91, indicating that perceptions of institutional justification for use of recovered F&A costs had a neutral effect upon the decisions to engage in sponsored research activity. The mean score for the PI group was 2.79, with 200 of the 235 identified PIs answering this question. In the non-PI group, the mean score was 3.04 with 189 out of 271 members of this group answering the question. These descriptive data can be examined in Table 4.

Table 4

Comparison of the Effect of Perception Regarding Justification of Recovered F&A Use

Group	Min	Max	Mean	Median	SD
Sample	1	5	2.91	3.00	.815
PIs	1	5	2.79	3.00	.838
non-PIs	1	5	3.04	3.00	.771

The result of the Levene's Test for Equality of Variances associated with this research question yielded a value of .006; this result showed the two variances were not equal. Subsequently, the *SPSS* output for instances when the variances are not equal were used. The independent samples *t*-test (two-tailed) was used to further analyze the data and a *p*-value of .002 was obtained from the aforementioned statistical analysis. The *t*-test for unequal variances was used from the *SPSS* output associated with this research question. These results indicated a significant difference between PIs and non-PIs on the effect their perceptions associated with the institutional justification for use of recovered F&A costs have on their decisions to engage in sponsored research activity.

In addition, the respondents for this research question indicated the following: 9.9% of the respondents stated their perceptions were likely to affect their decisions, 10.7% of the respondents articulated it was unlikely to affect their decisions, and 23.6% did not provide an answer to this survey question. Specifically, 51.1% of the PIs stated their institutions' justification regarding recovered F&A costs use had a neutral effect, 14.0% expressed their institutions' justification was likely to have an effect upon their decisions to engage in sponsored research activity, and 10.2% affirmed their institutions' justification was unlikely to affect their decisions regarding sponsored research activity. In the non-PI group, 46.1% of

the respondents reported their perceptions of their institutions' overall use had a neutral effect on their decisions, 6.6% indicated their perceptions were likely to affect their decisions, and 11.1% stated their perceptions of their institution's justification regarding the use of recovered F&A costs were unlikely to affect their decisions to engage in sponsored research activity. This information can be examined in greater detail in Table 5.

Table 5

Effect of Perception Regarding Institutional Justification

Effect on Decision	Frequency	Percent	Valid Percent
Very Likely	29	5.7%	7.4%
Likely	51	9.9%	13.0%
Neutral	247	48.1%	63.0%
Unlikely	55	10.7%	14.0%
Extremely Unlikely	10	1.9%	2.6%
Other	0	0.0%	
Missing/Did Not Answer	121	23.6%	
Total	513	100.0%	100.0%

The responses from PI group and from the non-PI group indicated they generally had neutral perceptions regarding their institutions' justification regarding the use of recovered F&A costs. The reported neutral perceptions of both groups suggested that their overall perceptions did not influence either group to make to the decision to engage in sponsored research activity or to decide not to become involved with sponsored research activity at their institutions. The mean score for the PI group ($\bar{x} = 2.79$) was lower than that of the non-PI group ($\bar{x} = 3.04$). To some extent, these results ($p = .002$) indicated that a PI's decision to

engage in sponsored research activity could be affected more by her or his perception of the institutional overall use of recovered F&A more than the decision of a non-PI based upon her or his perception.

Research Question Three: What Effect, if any, Does the Faculty Member's Perception of the Support Services Provided by the Sponsored Programs Office Have Upon Her or His Decision to Engage in Sponsored Research Activities?

In general, the faculty members' perceptions of the adequacy of services provided by the sponsored program offices (SROs) had a neutral effect upon their decisions to engage in sponsored research activity. All respondents were asked in survey question 19 if their perceptions regarding the institution's justification associated with the use of F&A costs were *Very Likely* (score value = 1), *Likely* (score value = 2), *Neutral* (score value = 3), *Unlikely* (score value = 4) or *Extremely Unlikely* (score value = 5) to have an effect upon their decisions to engage in sponsored research activity.

The mean score for all respondents was 2.88 (i.e., neutral effect) with 395 of a possible 513 faculty members responding to this question. The PI group data analysis generated a mean score of 2.67, which indicated their perceptions of services from sponsored programs offices had a neutral effect on their decisions to engage in sponsored research activity. In the non-PI group, the mean score was 2.94 with 191 respondents. This information is further illustrated in Table 6.

Table 6

Comparison of the Effect of Perception Regarding Adequacy of SRO Services

Group	Minimum	Maximum	Mean	Median	SD
Sample	1	5	2.88	3.00	.929
PIs	1	5	2.67	3.00	.926
non-PIs	1	5	2.94	3.00	.915

The result derived from the Levene's Test for Equality of Variances yielded a value of .013, indicating the two variances were not equal. The *SPSS* output for a *t*-test for unequal variance on the dependent variable yielded a *p*-value of .005 from the collected data.

Therefore, the difference in the mean score for PIs and the mean score for non-PIs was significant regarding the effect their perceptions associated with the adequacy of the support services provided by their SROs had on their decisions to engage in sponsored research activity.

When asked, 40.7% of all participating faculty members declared their perceptions of the various services provided by their SROs had a neutral effect upon their decisions to engage in sponsored research activity. In addition, 14.4% of all respondents expressed that their perceptions were likely to have an effect on their decisions, 10.9% acknowledged their perceptions were unlikely to have an effect upon their decisions to engage in sponsored research activity, and 23% of the respondents did not provide an answer regarding the effect of their perceptions as they pertain to the adequacy of services provided by their sponsored programs offices. This information is displayed, in greater detail, in Table 7.

Table 7

Effect of Perception Regarding Adequacy of SRO Services

Effect on Decision	Frequency	Percent	Valid Percent
Very Likely	43	8.4%	10.9%
Likely	74	14.4%	18.7%
Neutral	209	40.7%	52.9%
Unlikely	56	10.9%	14.2%
Extremely Unlikely	13	2.5%	3.3%
Other	0	0.0%	
Missing/Did Not Answer	118	23.0%	
Total	513	100.0%	100.0%

Within the PI group, 19.6% reported their perceptions would likely have an effect their decisions, whereas 11.9% of the PIs stated their perceptions were unlikely to have an effect on their decisions to engage in sponsored research activity at their institutions. The responses from the non-PI group indicated 10.3% of this group stated their perceptions were likely to have an effect their decisions and 10.3% stated their perceptions were unlikely to have an effect their decisions.

Overall, the perceptions of those participating in this study (both PIs and non-PIs) had a neutral effect on their decisions to engage in sponsored research activity, suggesting that the perceived adequacy of the services provided by their sponsored programs offices did not influence their decisions to either engage in sponsored research activity or not to become involved with sponsored research activity at their institutions. The mean score for the PI group ($\bar{x} = 2.67$) was lower than the non-PI group mean score ($\bar{x} = 2.94$), and these data

indicated that to some extent, a PI could be affected more ($p = .005$) by her or his perception of the adequacy of the services provided by their sponsored programs offices more than a non-PI.

Research Question Four: What Effect, if any, Does the Faculty Member's Perception Regarding the Percentage of Total Recovered Facilities and Administrative Costs Returned to the Faculty Member Have Upon Her or His Decision to Engage in Sponsored Research Activities?

In survey question 23, the five possible responses associated with perceptions of the percentage of the total recovered F&A costs returned to the originating unit was scored and each assigned a value. The purpose was to arrive at a single score that best described an individual faculty member's perception of her or his institution's overall use of recovered F&A costs. Respondents were asked if their perceptions regarding the percentage of total recovered F&A costs returned to the faculty member had an effect on their decisions to engage in sponsored research activities. Each participant selected a response from the following options: *Very Likely* (score value = 1), *Likely* (score value = 2), *Neutral* (score value = 3), *Unlikely* (score value = 4) or *Extremely Unlikely* (score value = 5) to have an effect upon the decision to engage in sponsored research activity. The mean score for all respondents was 2.92. This score indicated that the perception of the percentage of recovered F&A costs returned to the originating unit(s) had a neutral effect upon their decision to engage in sponsored research activities at their institution. The mean scores for the PI group ($\bar{x} = 2.79$) as well as the non-PI group ($\bar{x} = 3.06$) indicated that perceptions had a neutral effect on their choices to engage in sponsored research activity. These data are illustrated in Table 8.

Table 8

Comparison of the Effect of Perception Regarding Return to Originating Unit

Group	Minimum	Maximum	Mean	Median	SD
Sample	1	5	2.92	3.00	.854
PIs	1	5	2.79	3.00	.917
non-PIs	1	5	3.06	3.00	.760

The result of the Levene's Test for Equality of Variances returned a value of .000, indicating a lack of variance between the two groups. In addition, the result of the independent samples *t*-test (two-tailed) produced a *p*-value of .002. These results indicated a significant difference between PIs and non-PIs and the effect their perceptions regarding the percentage of recovered F&A costs returned to the PIs (originating unit) have on their decisions to engage in sponsored research activity.

The respondents indicated the following effect of their perceptions upon the decision to engage in sponsored research activity: 47.8% stated their perceptions regarding the percentage of costs returned to PIs had a neutral effect on their decisions to engage in sponsored research activity, 9.6% indicated their perceptions were likely to have an effect upon their decisions, and 11.3% stated their perceptions were unlikely to have an effect on their decisions to become involved with sponsored research at their institution. These data can be examined in greater detail in Table 9.

Table 9

Effect of Perception Regarding Return of Recovered F&A Costs

Effect on Decision	Frequency	Percent	Valid Percent
Very Likely	33	6.4%	8.3%
Likely	49	9.6%	12.3%
Neutral	245	47.8%	61.6%
Unlikely	58	11.3%	14.6%
Extremely Unlikely	13	2.5%	3.3%
Other	0	0.0%	
Missing/Did Not Answer	115	22.4%	
Total	513	100.0%	100.0%

In addition, 13.2% of the participating PIs indicated their perceptions were likely to have an effect on their decisions to engage in sponsored research activity, while 11.9% reported their perceptions regarding the percentage of the total recovered F&A costs returned to the PI (originating unit) were unlikely to have an effect upon their decisions to engage in sponsored research activity. In the non-PI group, 47.6% of the respondents stated their perception had a neutral effect, 6.6% of those who answered this question stated their perceptions were likely to have an effect, and 10.7% indicated their perceptions of the percentage of recovered F&A costs the institution returned to the PI (originating unit) were unlikely to have an effect upon their decisions to engage in sponsored research activity.

In summary, the perceptions of those participating in this study (both PIs and non-PIs) associated with the percentage of the total recovered F&A costs returned to the PI (originating unit) had a neutral effect on their decisions to engage in sponsored research

activity. The respondents' neutral perceptions indicated their perceptions of the percentage of the recovered F&A costs that were returned did not influence their decision to either engage in sponsored research activity or not to become involved with sponsored research activity at their institution. The mean score for the PI group ($\bar{x} = 2.79$) was lower than the non-PI group mean score ($\bar{x} = 3.06$) suggesting that to some extent, a PI could be affected more ($p = .002$) by her or his perception of the percentage of the recovered F&A costs that are returned to the originating source more than a non-PI.

Research Question Five: What Effect, if any, Does the Faculty Member's Perception Regarding the Amount of Recovered Facilities and Administrative Costs Used to Provide Administrative and Clerical Support for the Faculty Member's Sponsored Research Activities Have Upon Her or His Decision to Engage in Sponsored Research Activities at Their Institution?

In survey question 27, respondents were asked if their perceptions regarding the percentage of the total recovered F&A costs collected by the institution were *Very Likely* (score value = 1), *Likely* (score value = 2), *Neutral* (score value = 3), *Unlikely* (score value = 4) or *Extremely Unlikely* (score value = 5) to affect their decisions to engage in sponsored research activity. The mean score was 3.01 for all respondents that provided a response to this survey question. Within the PI group, 203 PIs answered this survey question resulting in a mean score of 2.93, while in the non-PI group the mean score was 3.09 with 184 non-PIs responding to this question. These data are illustrated in Table 10.

Table 10

Comparison of the Effect of Perception Regarding Administrative and Clerical Support

Group	Min	Max	Mean	Median	SD
Sample	1	5	3.01	3.00	.833
PIs	1	5	2.93	3.00	.873
non-PIs	1	5	3.09	3.00	.780

The result of the Levene's Test for Equality of Variances for this variable yielded a value of .083, indicating an equal variance between groups. In addition, the independent samples *t*-test (two-tailed) result from the *SPSS* output for unequal variances generated a *p*-value of .050, which is considered to be marginally significant.

When asked, 45.8% of all faculty members that responded to this question indicated their perceptions had a neutral effect on their decisions to engage in sponsored research activity, 10.3% stated their perceptions were likely to have an effect upon their decisions, and 12.5% affirmed their perceptions were unlikely to have an effect on their decisions regarding involvement with sponsored research activity at their institutions. These data are further examined in Table 11.

Table 11

Effect of Perception Regarding Administrative and Clerical Support

Effect on Decision	Frequency	Percent	Valid Percent
Very Likely	21	4.1%	5.4%
Likely	53	10.3%	13.6%
Neutral	235	45.8%	60.3%
Unlikely	64	12.5%	16.4%
Extremely Unlikely	17	3.3%	4.4%
Other	9	1.8%	
Missing/Did Not Answer	114	22.2%	
Total	513	100.0%	100.0%

Respondents in the PI group (45.8%) indicated their perceptions had a neutral effect on their decisions to either engage in sponsored research activity or not to engage in sponsored research activity at their institutions. In addition, 15.3% of the PIs that responded stated their perceptions were likely to have an effect upon their decisions regarding sponsored research activity, and 14.9% asserted their perceptions were unlikely to have an effect upon their decisions to engage in sponsored research activity at their institutions. As a group, 45.0% of the non-PI respondents said their perceptions had a neutral effect, 6.3% stated they were likely to have an effect, and 10.3% indicated their perceptions were unlikely to have an effect on their decisions to either engage in sponsored research activity or not to engage in sponsored research activity.

Overall, the perceptions of those participating in this study (both PIs and non-PIs) had a neutral effect on their decisions to engage in sponsored research activity. A neutral

perception indicated the administrative and clerical support dedicated to the faculty member's sponsored research activities did not influence their decision to either engage in sponsored research activity or not to become involved with sponsored research activity at their institution. The mean score for the PI group ($\bar{x} = 2.67$) was lower than the non-PI group mean score ($\bar{x} = 2.94$) and the data indicated that to some degree ($p = .05$), a PI could be marginally affected more by her or his perception of the adequacy of the administrative and clerical support dedicated to the faculty member's sponsored research activities more than a non-PI.

Ancillary Findings

An emergent category analysis was performed on the data from the five open-ended survey questions, as well as the data collected from the remaining survey questions. As a result of this analysis, several themes related to the various perceptions of faculty members developed. Responses from faculty members regarding their institutions' overall use of recovered F&A costs, their institutions' justification regarding the use of recovered F&A costs, the percentage of recovered F&A costs being returned to the originating unit, and the amount of recovered F&A costs used to provide faculty members with administrative and clerical support dedicated to their sponsored research activity were primarily negative. The majority of the responses associated with the adequacy of the services provided by sponsored programs office were neutral. The data source for these emerging categories was survey question 12, survey question 16, survey question 20, survey question 24, and survey question 28. These data are displayed in Table 12.

Table 12

Perception of Various Institutional Aspects of Recovered F&A Costs Use

Type	Positive	Neutral	Negative	None
Overall Use	15.3%	28.8%	31.4%	24.5%
Institutional Justification	12.0%	26.5%	32.1%	29.4%
Adequate SRO Services	26.8%	28.2%	27.3%	17.8%
Fair Return to Unit	13.8%	27.9%	35.4%	22.9%
F&A for Administrative and Clerical Support	12.0%	27.4%	36.7%	23.9%

Institution's Overall Use of Recovered F&A Costs

The responses associated with the emerging theme of overall use of recovered F&A costs by the institution primarily focused on the opinion that engaging in sponsored research is a requirement for faculty members seeking tenure or for their position. The secondary emerging themes were as follows: faculty members do not know how recovered F&A costs are used, and the institution's overall use has no effect on their decision to engage in sponsored research activity. The data pertaining to the general characteristics associated with the emerging themes related to overall institutional use are displayed in Table 13.

Table 13

Emerging Themes—Overall Institutional Use (Sample)

Type	Frequency	Percent
Positive Comments	30	18.63%
Neutral Comments	51	31.68%
Negative Comments	79	49.07%
Missing/Did Not Answer	1	0.62%
Total	161	100%

In survey question nine, respondents were asked if they agreed that the institution's overall use was fair and equitable to principal investigators. The possible responses were as follows: *Strongly Agree* (score value = 1), *Agree* (score value = 2), *Neutral* (score value = 3), *Disagree* (score value= 4) or *Strongly Disagree* (score value = 5). The mean score for all respondents was 4.15. The majority of responses from the PI group indicated they disagreed that the overall use of recovered F&A costs was fair and equitable ($\bar{x} = 3.54$) at their institution. The data pertaining to the general characteristics associated with the emerging themes related to overall institutional use for the PI group is displayed in Table 14.

Table 14

Emerging Themes—Overall Institutional Use (PI Group)

Type	Frequency	Percent
Positive Comments	11	12.22%
Neutral Comments	44	48.89%
Negative Comments	34	37.78%
Missing/Did Not Answer	1	1.11%
Total	90	100%

When asked, non-PIs indicated they strongly disagreed with the statement regarding fairness and equity of the institution's use of recovered F&A costs ($\bar{x} = 4.77$). In addition, 8.9% of the participating PIs did not provide an answer to this question and 35.4% of the non-PIs did not respond to this research question. The emerging themes for the non-PI group can be examined in Table 15.

Table 15

Emerging Themes—Overall Institutional Use (non-PI Group)

Type	Frequency	Percent
Positive Comments	19	26.76%
Neutral Comments	7	9.86%
Negative Comments	45	63.38%
Missing/Did Not Answer	0	0.0%
Total	71	100%

Institution’s Justification of Use of Recovered F&A Costs

After the data from this open-ended question (survey question 16) were collected and analyzed, the following themes related to the institution’s justification emerged: the justification had no effect on the faculty member, the institution provided little or no justification, and the faculty member does not like the justification but must engage in sponsored research activity. The data pertaining to the general descriptions of these emerging themes can be examined in Table 16.

Table 16

Emerging Themes—Institutional Justification of Use (Sample)

Type	Frequency	Percent
Positive Comments	2	2.04%
Neutral Comments	76	77.55%
Negative Comments	20	20.41%
Missing/Did Not Answer	0	0.0%
Total	98	100%

The emerging themes data for the PI group can be examined in Table 17 and the data for the non-PI group is illustrated in Table 18.

Table 17

Emerging Themes—Institutional Justification of Use (PI Group)

Type	Frequency	Percent
Positive Comments	1	1.69%
Neutral Comments	42	71.19%
Negative Comments	16	27.12%
Missing/Did Not Answer	0	0.0%
Total	51	100%

Table 18

Emerging Themes—Institutional Justification of Use (non- PI Group)

Type	Frequency	Percent
Positive Comments	1	2.56%
Neutral Comments	34	87.18%
Negative Comments	4	10.26%
Missing/Did Not Answer	0	0.0%
Total	39	100%

In addition, in survey question 13, all respondents were asked if they agreed that their institution provided a satisfactory justification regarding the use of recovered F&A costs from sponsored projects. The respondents had the following options as a possible response: *Strongly Agree* (score value = 1), *Agree* (score value = 2), *Neutral* (score value = 3), *Disagree* (score value= 4) or *Strongly Disagree* (score value = 5). The mean score for all respondents was 4.21, PIs indicated they disagreed the justification provided by institution

associated with the use of recovered F&A costs was satisfactory ($\bar{x} = 3.80$) and non-PIs indicated they strongly disagreed ($\bar{x} = 4.63$) with the aforementioned statement identified in survey question 13. In addition, 8.9% of the participating PIs did not answer this question and 35.4% of the non-PIs did not provide an answer for this research question.

A PI shared the following detailed statement regarding the institution's justification regarding the use of recovered F&A costs:

When the bulk of the money goes to the institution/research office rather than to the PI and research assistants, what incentive is that for me? Especially if I teach full-time? If the university wants me to conduct high-visibility research, they need to make it worth my time. A course release would be great, but those are nearly impossible to get; therefore, the financial incentive is the only reason for me to participate -- and when that incentive is so low, I've no reason to do the research.

Adequacy of Services from Sponsored Programs Office

The following themes emerged from the open-ended question (survey question 20) related to the services provided by the sponsored programs offices: the organizational culture hinders rather than supports PIs, the services have no effect on the faculty member, and the support personnel helped support research activities. The data for this emerging theme can be examined in Table 19.

Table 19

Emerging Themes—Services from Sponsored Program Office (Sample)

Type	Frequency	Percent
Positive Comments	14	14.43%
Neutral Comments	30	30.93%
Negative Comments	53	54.64%
Missing/Did Not Answer	0	0.00%
Total	97	100.00%

The emerging themes data for the PI group can be examined in Table 20 and the data for the non-PI group is illustrated in Table 21.

Table 20

Emerging Themes—Services from Sponsored Program Office (PI Group)

Type	Frequency	Percent
Positive Comments	8	12.90%
Neutral Comments	26	41.94%
Negative Comments	28	45.16%
Missing/Did Not Answer	0	0.0%
Total	62	100%

Table 21

Emerging Themes—Services from Sponsored Program Office (non-PI Group)

Type	Frequency	Percent
Positive Comments	6	17.14%
Neutral Comments	4	11.43%
Negative Comments	25	71.43%
Missing/Did Not Answer	0	0.0%
Total	35	100%

In addition, all respondents were asked (survey question 17) if their sponsored programs office provided adequate services to support their sponsored research activity. Respondents were asked to categorize their opinions from the following options: *Strongly Agree* (score value = 1), *Agree* (score value = 2), *Neutral* (score value = 3), *Disagree* (score value = 4) or *Strongly Disagree* (score value = 5). The mean score for all respondents for this variable was 3.58 thereby indicating the overall perception was closer to disagreeing with this statement than having a neutral opinion of this statement.

The majority of responses from the PI group also indicated they were closer to disagreeing with the adequacy of the services provided by their sponsored programs office services that supported their sponsored research activities of PIs ($\bar{x} = 3.80$). When asked, non-PIs indicated they disagreed with the adequacy of the services provided by their sponsored programs office ($\bar{x} = 4.01$). In addition, 3.8% of the participating PIs did not answer this question, and 24.7% of the non-PIs did not answer this research question.

One PI shared the following detailed statements regarding the adequacy of services provided by the sponsored programs office:

Most of the faculty that I work with have negative opinion of our Sponsored Programs Office. They act like they are the bosses without realizing that if faculty stop writing proposal, then they will have no work. The services provided are not adequate and not reasonable for research very high university. These are a major hurdle to grow the research enterprise.

Another PI indicated the financial accounting unit that provided support for his sponsored project was a factor in her/his decision to engage in sponsored research activity:

When I received my NSF grant, the office of business affairs (at the time, the equivalent of an SRO) told me I would be responsible for managing my grant. They also asked me why I hadn't asked for any indirect costs. At which point, I just looked at them and decided to mainly apply for grants through my adjunct position at another institution.

Percentage of Recovered F&A Costs Returned to Originating Source

The following themes emerged from survey question 24: the percentages that returned are disincentivizing to the PI, the percentages that are returned have no effect, and the respondents approved the percentages returned to the originating unit. The data for this emerging theme are illustrated in Table 22.

Table 22

Emerging Themes—Percentage of Recovered F&A Cost Returned to Originating Unit

(Sample)

Type	Frequency	Percent
Positive Comments	6	7.23%
Neutral Comments	42	50.60%
Negative Comments	35	42.17%
Missing/Did Not Answer	0	0.0%
Total	83	100%

The emerging themes data for the PI group can be further examined in Table 23 and the data for the non-PI group can be reviewed in Table 24.

Table 23

Emerging Themes—Percentage of Recovered F&A Cost Returned to Originating Unit (PI

Group)

Type	Frequency	Percent
Positive Comments	3	5.77%
Neutral Comments	29	55.77%
Negative Comments	20	38.46%
Missing/Did Not Answer	0	0.0%
Total	52	100%

Table 24

Emerging Themes—Percentage of Recovered F&A Cost Returned to Originating Unit (non-PI Group)

Type	Frequency	Percent
Positive Comments	3	9.68%
Neutral Comments	13	41.94%
Negative Comments	15	48.39%
Missing/Did Not Answer	0	0.0%
Total	31	100%

In survey question 21, the respondents were asked if the percentage of the recovered F&A costs that was returned to the originating unit was fair and equitable for the time and effort faculty members dedicate to sponsored research activity. Respondents were asked to select from the following options: *Strongly Agree* (score value = 1), *Agree* (score value = 2), *Neutral* (score value = 3), *Disagree* (score value= 4) or *Strongly Disagree* (score value = 5). The mean score for all respondents for this variable was 4.20, indicating the overall perception was to disagree with this statement.

In terms of specific group responses, the PI group also indicated they disagreed that the percentage of recovered F&A costs returned to the originating unit was fair and equitable ($\bar{x} = 3.72$), and the non-PIs indicated that they strongly disagreed with statement that the percentage of recovered F&A costs returned to the originating unit was fair and equitable ($\bar{x} = 4.70$). Within the PI group, 3.8% of the participating PIs did not answer this question and 24.7% of the non-PIs did not provide an answer for this research question. One faculty

member wrote the following statement, “Zero % speaks for itself.” Another PI expressed the following perception:

When a PI has a grant proposal rejected, all the work devoted to that proposal counts for nothing! When a PI gets a grant proposal funded, sponsored programs grabs their money, the Dean grabs the college's money, the Chair grabs the Department money. The PI gets NO money unless the Chair and Dean decide to support the PI (which doesn't always happen!!!).

“Additional F&A costs should be re-invested in PIs who did well in securing external funding,” noted one respondent, and another PI made this observation:

There is no return of F&A to me, I get no support from the College or Division. Being externally funded in my Division is punitive. Processing of paperwork for expenses is archaic, 100% paper based and a ridiculous waste of time. There are no written procedures, when a mistake is made administration threatens disciplinary action. If you complain or ask for help you get assigned extra classes, more advisees, paperwork disappears, and a negative comment is placed in your tenure file. The process is so difficult I will not write another grant until I get a job at another institution.

Administrative and Clerical Support for Sponsored Research Activity

Survey question 28 offered the opportunity for respondents to provide additional comments pertaining to their perceptions of the adequacy of the administrative and clerical support provided to faculty members to support their sponsored research activities. The following themes emerged: organizational culture hinders rather than supports PIs; provided services have no effect on faculty members; and although faculty members do not like the services that are provided, they must engage in sponsored research activity. The frequency

of neutral comments and negative comments were equal for this variable. The data for this emerging theme can be examined in Table 25.

Table 25

Emerging Themes—Administrative and Clerical Support for Sponsored Research Activity (Sample)

Type	Frequency	Percent
Positive Comments	8	9.30%
Neutral Comments	39	45.35
Negative Comments	39	45.35%
Missing/Did Not Answer	0	0.00%
Total	86	100.00%

The emerging themes data for the PI group can be further examined in Table 26 and the data for the non-PI group can be reviewed in Table 27.

Table 26

Emerging Themes—Administrative and Clerical Support for Sponsored Research Activity (PI Group)

Type	Frequency	Percent
Positive Comments	2	3.85%
Neutral Comments	25	48.08%
Negative Comments	25	48.08%
Missing/Did Not Answer	0	0.0%
Total	52	100%

Table 27

Emerging Themes—Administrative and Clerical Support for Sponsored Research Activity

(non-PI Group)

Type	Frequency	Percent
Positive Comments	6	17.65%
Neutral Comments	14	41.18%
Negative Comments	14	41.18%
Missing/Did Not Answer	0	0.0%
Total	34	100%

From the various qualitative responses (survey question 28), the following detailed perceptions from two PIs were representative as it relates to this emerging theme. The first PI indicated the following: “My perception is that we have to build their time into our grants - so we're raising money for this in addition to the F&A.” The second PI shared the follow perception: “Administrative and clerical support? ROTFLMAO.”

In addition, a non-PI group member expressed the following perception connected to the use of recovered F&A costs to provide administrative and clerical support for a faculty member’s sponsored research activity: “Administrative help is critical to administering the grant. F&A costs should go towards hiring additional administrative resources or tools to help administrators, i.e. more efficient copy machines.”

The mean score for all respondents that provided an answer to survey question 25 (\bar{x} = 4.14) indicated they disagreed with the following statement: “The amount of recovered F&A costs used by my institution to provide me with administrative and clerical support is adequate for my sponsored research activity.”

When asked, PIs indicated they disagreed (mean score equaled 3.79) with the aforementioned statement regarding the adequacy of the administrative and clerical support provided to support sponsored research activity, and the responses from the non-PI group indicated they also disagreed (mean score equaled 4.49). Nearly 7% of the participating PIs did not provide an answer to this question, while 32.1% of the non-PIs declined to answer this research question.

Summary of Findings

Overall, the perceptions of PIs, as well as non-PIs, had a neutral effect upon their decisions to engage in sponsored research activity for all variables: the institution's overall use of recovered F&A costs, the institution's justification for how recovered F&A costs were used, the adequacy of support for sponsored research activities provided by their sponsored research office, the percentage of recovered F&A costs that were returned to originating unit, and the administrative and clerical support that was available for assisting faculty members with sponsored research activity from recovered F&A costs.

Significant Findings

There was a significant difference between the perceptions of PIs and non-PIs regarding the overall institutional use of recovered F&A costs, the institution's justification of use of recovered F&A costs, the adequacy of the services provided by the sponsored programs office to support faculty members' research activities, the percentage of recovered F&A costs returned to the originating unit, and the effect these perceptions had upon their decisions to undertake sponsored research responsibilities at their institutions. The significant difference in each instance was that a PI's decision to engage in sponsored

research activity could be affected by her or his perception to some degree more than a non-PI.

As it pertains to the amount of recovered F&A costs used to provide administrative and clerical support for the faculty member's sponsored research activities, there was a marginally significant difference ($p = .05$) between the responses of the PI group and the non-PI group. In summary, the perception of this variable did not affect the decision of a PI or a non-PI to engage in sponsored research activity.

Ancillary Findings

When a response was provided for any of the five open-ended questions, PI respondents provided a higher level of detail. The majority of the qualitative responses from the PI group indicated they may not like the decisions made by institutions pertaining to the various uses and aspects of recovered F&A costs generated by sponsored research, but they must engage in sponsored research activity as a condition of their employment. In addition, these responses indicated those with negative perceptions were likely not to engage in sponsored research activity.

In comparison to the PI group, respondents within the non-PI group had a higher percentage that did not provide an answer to research questions. The primary emergent theme from the qualitative responses from the non-PI group stated they did not know enough about recovered F&A costs or how recovered F&A funds were used at their institutions to provide an answer to these survey questions.

CHAPTER FIVE: CONCLUSIONS AND IMPLICATIONS

The recovered Facilities and Administrative (F&A) costs generated by funded sponsored research projects represent “a kind of income little known to the outside world but extremely appealing in the stringent environment of university finance: reimbursement for indirect costs” (Greenberg, 2007, p.1). In addition, the decisions made by various administrators regarding the uses of recovered F&A costs are often sources of conflicts between administrators and faculty members involved with sponsored research activity (Cole, 2007; Mitteness & Becker, 1997; Sedwick, 2009; Wimsatt, et al., 2009). According to Sedwick (2009), “perhaps no other category of funding for the research enterprise is more misunderstood, maligned, and generally resented than indirect costs” (p. 22).

The decline in sponsored research awards to academic institutions would not only affect faculty members, but it could result in the deterioration of the overall research and development capabilities in colleges and universities and eventually of the United States (Council on Government Relations, 2008; Welker & Cox, 2006). Therefore, any findings of this study should be relevant not only to faculty members, but also to higher education administrators, as well as federal sponsors, with activities such as strategic planning, retention of successful principal investigators, strengthening the academic research enterprise, and improving the overall perceptions of the use of recovered F&A costs generated by funded sponsored research projects.

Population and Sample

The population ($N = 3,292$) for this study was comprised of all faculty members at West Virginia institutions of higher education that had a negotiated F&A rate agreement with a federal agency. An invitation to participate in the study was sent via e-mail to all of the

aforementioned faculty members resulting in the sample size ($N = 3,292$) for this study being the defined population. The return rate for this study was 15.58% with 513 respondents.

Methods

Initially, the survey was sent to a group of doctoral students to seek feedback regarding the content and the readability of the questionnaire. Based upon these comments, the survey questionnaire was revised and was created online by the researcher using the *Survey Monkey* application software. The online survey questionnaire contained 28 questions that collected faculty demographic information and measured faculty perceptions by using varying degrees of Likert scales as well as five open-ended questions to collect qualitative data pertaining to the study.

At the beginning of the study, a letter was sent to the presidents of all higher education institutions in West Virginia (Appendix C) that met the criteria of being included in the defined population as a token of professional courtesy, as well as open communication regarding the topic of how an institution uses recovered F&A costs generated by funded sponsored research projects. Each letter briefly described the study, provided the electronic link to the survey, and requested access to or the use of the institution's faculty listserv. Due to the topic of institutional use of recovered F&A costs being perceived as complex or potentially controversial based upon the limited responses from the abovementioned administrators, the researcher directly secured the e-mail addresses necessary to contact all faculty members in the sample ($N = 3,292$) from online faculty directory information. An initial invitation e-mail and two follow-up e-mails were sent to all identified faculty members in the sample. All e-mails contained an invitation to participate in the study as well as an electronic link to the survey questionnaire (Appendix D).

The sample was divided between faculty members who currently were principal investigators (PIs) and faculty members who were not principal investigators (non-PIs); 235 of the respondents identified themselves as PIs, 271 identified themselves as non-PIs, and seven faculty members chose not to answer this question. The resulting data were then analyzed to determine if there were any differences between the PIs ($n = 235$) and non-PIs ($n = 271$) and their responses to one or more of the research questions. The data from the seven respondents that did not identify themselves as a PI or as a non-PI were included only in the data analysis of the entire sample.

Findings

The purpose of this study was to research the potential effect of a faculty member's perception of the institution's various uses of, and business practices associated with, recovered F&A costs generated by a sponsored project had upon her or his decision to engage in sponsored research. According to the qualitative data collected from PIs, as well as non-PIs, the motivation for pursuing externally funded research by the institution is so strong (e.g., receiving a tenured faculty position) that the institution's use of recovered F&A costs is more than likely a secondary or tertiary concern for most faculty members.

Summary of Significant Findings

A review of the available literature provided the following general themes related to the various issues associated with recovered F&A costs: the overall use of recovered F&A costs, the institution's justification for its use of recovered F&A costs, the support services offered by the sponsored programs office, the faculty member's dissatisfaction with the minimal or nonexistent return of recovered F&A funds to the faculty member, and the lack of direct financial support for administrative or clerical support dedicated to their sponsored

projects (Decker, et al., 2007; Mitteness & Becker, 1997; Ortale, 2001). The aforementioned themes served as the basis for the five research questions used in this study.

Research Question One: What effect, if any, does the faculty member's perception of the institution's overall use of recovered facilities and administrative costs have on her or his decision to engage in sponsored research activities. The reported perception of both PIs, as well as non-PIs, had no effect on their decisions to engage in sponsored research activity at their institutions. The score for a neutral perception was 3.00 on a five-point Likert scale. The mean score for the PI group was 2.74 and the non-PI group's mean score was 2.99. The *p*-value (derived from the *t*-test for unequal variances) for this research question was .004 thereby indicating that to some degree, PIs could be affected more than non-PIs by their perception of the institution's overall use of recovered F&A.

Research Question Two: What effect, if any, does the faculty member's perception regarding the institution's justification for the use of recovered facilities and administrative costs have upon her or his decision to engage in sponsored research activities. The perception of those participating in this study (both PIs and non-PIs) reflected a neutral effect on their decision to engage in sponsored research activity. The mean score for the PI group ($\bar{x} = 2.79$) was lower than the non-PI group mean score ($\bar{x} = 3.04$). The score for a neutral perception was 3.00 on a five-point Likert scale. In addition, the *p*-value for this research question (derived from the *t*-test for unequal variances) was .002, thereby indicating that, to some degree, PIs could be affected more by their perception of the institution's justification regarding the use of recovered F&A more than non-PIs.

Research Question Three: What effect, if any, does the faculty member's perception of the support services provided by the sponsored programs office have upon

her or his decision to engage in sponsored research activities. The reported perceptions of both PIs, as well as non-PIs, showed no effect on their decisions to engage in sponsored research activity at their institutions. The score for a neutral perception was 3.00 on a five-point Likert scale. The mean score for the PI group was 2.67 and the mean score for the non-PI group was 2.94. The mean scores as well as the obtained p -value ($p = .005$) revealed that to some degree, PIs could be affected more than non-PIs by their perception of the services provided by the sponsored programs office.

Research Question Four: What effect, if any, does the faculty member's perception regarding the percentage of total recovered facilities and administrative costs returned to the faculty member have upon her or his decision to engage in sponsored research activities. The perception of those participating in this study (both PIs and non-PIs) concerning the percentage of the total recovered F&A costs returned to the PI (originating unit) reflected a neutral effect on their decisions to engage in sponsored research activity. The mean score for the PI group ($\bar{x} = 2.79$) was lower than that for the non-PI group mean score ($\bar{x} = 3.06$). In addition, the p -value for this variable was .002. Subsequently, it could be suggested that, to some extent, PIs could be affected more by their perception of the percentage of the total recovered F&A costs awarded to the institution that are returned to the originating unit (e.g. PI, PI's department and the PI's college).

Research Question Five: What effect, if any, does the faculty member's perception regarding the amount of recovered facilities and administrative costs used to provide administrative and clerical support for the faculty member's sponsored research activities have upon her or his decision to engage in sponsored research activities. The reported perceptions of both PIs as well as non-PIs had no effect on their decisions to engage in

sponsored research activity at their institutions. The score for a neutral perception was 3.00 on a five-point Likert scale. The mean score for the PI group was 2.93 and the non-PI group's mean score 3.09. The p -value for this variable was .05 (equal variances assumed), thereby indicating that PIs could be affected marginally more by their perceptions of the individual institution's use of recovered F&A costs to provide PIs with administrative and clerical support for their research activities than non-PIs, as it relates to their decision to engage in sponsored research activity at their institutions.

Summary of Ancillary Findings

An emergent category analysis of the responses from the open-ended survey was conducted to further research the perceptions of PIs and non-PIs. The top three emerging themes associated with the institution's overall use of recovered F&A costs, addressed by the first research question, were these: 1) sponsored research is a requirement for faculty members seeking tenure or for their position; 2) faculty members do not know how recovered F&A costs are used; and 3) the institution's overall use of recovered F&A costs has no effect on their decision to engage in sponsored research activity (consistent with the survey responses). As it related to the second research question—the institution's justification of how recovered F&A costs were used—the following themes emerged: 1) the justification had no effect on the faculty member; 2) the institution provided little or no justification; and 3) the faculty member may not like the justification, but must engage in sponsored research activity nonetheless.

The following themes emerged from the open-ended question related to the third research question regarding services provided by the sponsored programs offices: 1) the organizational culture hinders rather than supports PIs; 2) the services have no effect on the

faculty member; and 3) the support personnel helped support research activities. The top three themes related to the percentage of the total recovered F&A costs that were returned to the originating unit, examined through the fourth research question, were as follows: 1) the percentages that are returned are not a sufficient incentive to engage in sponsored research activity for the PI; 2) the percentages that are returned have no effect; and 3) the respondents approved of the percentages returned to the originating unit. The reaction to the administrative and clerical support provided to faculty members to support their sponsored research activities, gathered in response to the fifth research question, yielded the following themes: 1) no administrative or clerical support is provided to the PI; 2) support that is provided hinders rather than supports the PI; and 3) the support provided has no effect on the PI's decision to engage in sponsored research activity.

Conclusions

The researcher was unable to locate any studies that specifically linked investigators' perceptions of F&A costs with their decision to conduct sponsored research. The findings from the available literature suggested the perceptions of faculty members, typically, were unfavorable toward F&A costs, as well as the subsequent recovery of F&A costs from sponsored research conducted by an institution of higher education in the United States. The existence of negative perceptions, as suggested within the available literature, was demonstrated in this study. Any substantial effect of those negative perceptions upon the decision to engage in sponsored research activity, however, was not confirmed.

Overall, the survey responses of PIs, as well as non-PIs, who participated in this study demonstrated a preference for the neutral response in regard to the following diverse aspects: the institution's overall use of recovered F&A costs, the institution's justification for

how recovered F&A costs were used, the adequacy of support for sponsored research activities provided by their sponsored research office, the percentage of recovered F&A costs that were returned to originating unit, and the administrative and clerical support that was available for assisting faculty members with sponsored research activity from recovered F&A costs. The significance of these results are that perceptions related to institutional use of F&A costs do not influence a faculty member's decision to either engage or decline to engage in sponsored research activity.

The researcher determined, however, that there were some significant statistical differences between the perceptions of PIs and non-PIs for four research questions in that, to some degree, PIs were influenced more than non-PIs by their negative perceptions regarding the various uses of recovered F&A costs. The significant statistical differences between the PI group and the non-PI group originated in the following research question topics: the PI's perception regarding the overall institutional use of recovered F&A costs; the institution's justification of use of recovered F&A costs; the adequacy of the services provided by the sponsored programs office to support faculty members' research activities; and the percentage of recovered F&A costs returned to the originating unit. There was a marginally significant difference between the perceptions of the PI group and the non-PI group on the effect of the amount of recovered F&A costs used to provide administrative and clerical support for the faculty member's sponsored research activities.

Comments from the PI group can be examined in Appendix F and the comments from the non-PIs can be reviewed in Appendix G. Overall the comments from the PI group and from the non-PI group were universally negative, indicating further study is needed regarding

recovered F&A costs, as well as other aspects of the academic research enterprise from the faculty member's perspective.

The responses to the open-ended (additional comments) survey questions that examined only the perceptions of PIs, as well as non-PIs, were categorized as being positive, neutral or negative. When the respondents were asked about their perceptions regarding the various aspects of how recovered F&A costs are used by their institutions, both PIs and non-PIs characterized their overall perceptions as being negative, as they related to the various aspects of recovered F&A costs and subsequent decisions made by the institutions regarding the use of the recovered F&A costs. Overall, the majority of additional comments provided by PIs indicated they did not like their institutions' decisions associated with the various aspects of recovered F&A costs addressed by this study, but that they had to engage in sponsored research activity as a condition of their employment or as a requirement to receive a tenured faculty appointment. In the non-PI group, the majority of faculty members did not know how recovered F&A costs were used at their institutions as defined by the five research questions.

The responses collected from the entire sample indicated the following neutral perceptions of recovered F&A cost themes: 77.55% had neutral comments regarding the institution's justification of how recovered F&A costs were used, while 50.60% had neutral comments associated with the percentage of recovered F&A costs returned to the originating source. In addition, the responses received from the sample denoted the following negative perceptions: 49.07% had negative comments regarding the institution's overall use, 54.64% had negative comments regarding the services provided by the sponsored programs office, and 45.35% had negative comments regarding the amount of recovered F&A costs used to

provide administrative and clerical support to faculty members for their sponsored research projects.

Implications

Even though perception had a neutral effect on a PI's, as well as a non-PI's decision to engage in sponsored research activity, the most significant implication of this study is the absence of positive perceptions being the predominate sentiment associated with any aspect of identified various uses and aspects of recovered F&A costs. From these results, it is plausible to infer that faculty members are not satisfied with the current institutional uses of recovered F&A costs. If the dissatisfaction and perceived inequities in the distribution of recovered F&A costs suggested by this study are not addressed, the implication is fewer faculty members may choose not to engage in sponsored research activity, thus amounting to less federal funding being awarded to the institution.

Another significant implication from this study pertains to the potential challenge of discussing the institution's use of recovered F&A costs. The limited response from administrators, suggested that there was some level of apprehension with the open discussion regarding the various institutional uses of recovered F&A costs. Without further investigating the current negative perceptions via productive dialogue, the institution's administrative officials will not have the knowledge necessary to effectively reverse the possible decline in sponsored research activities as well as the morale of faculty members. Moreover, should the amount of federally funded-research conducted in universities decrease due to a decline in the number of proposal submitted to a federal sponsor, it is likely there will be fewer credible research studies to balance the underwritten by commercial entities in search of preconceived outcomes (Greenberg, 2007). Greenberg (2007) suggested that

“entrepreneurship can easily conflict with the idealized concept of science as a noble, public-spirited enterprise” (p. 101). Such a development could potentially endanger the country’s entire population if sponsored research projects, such as clinical trials, are guided by the sponsor’s desired research outcomes.

Recommendations

Primary Recommendations

Even though the perceptions of PIs, as well as non-PIs, regarding recovered F&A costs indicated no direct effect on their decisions to engage in sponsored research activity, it is reasonable to suggest additional examination of these perceptions as potential secondary or tertiary influences on these decisions. Potential suggested areas for additional study would include the following:

- additional study of the implication that the various uses of recovered F&A costs are a secondary or tertiary influence on a faculty member’s decision to engage in sponsored research activity;
- further study of a PI’s knowledge of or general perceptions of recovered F&A costs generated by sponsored research activity;
- further study of a non-PI’s knowledge of or general perceptions of recovered F&A costs generated by sponsored research activity;
- the addition of a survey question that asks non-PIs if the institution’s various uses of recovered F&A costs is a factor in their decisions not to engage in sponsored research activity;
- the addition of a survey question that collects information regarding the faculty member’s discipline;

- the addition of a survey question that collects information about the type of sponsor (e.g. foundation, non-profit, industry);
- examination of a research administrator's knowledge or general perceptions of how the use of recovered F&A costs by the institution affects faculty members in the context of sponsored research administration;
- examination of an academic administrator's knowledge or general perceptions of how the use of recovered F&A costs by the institution affects faculty members in the context of sponsored research administration; and
- examination of how the various institutional uses of recovered F&A costs are communicated within an institution's entire research community.

Ancillary Recommendations

One suggestion to future researchers interested in this topic would be to focus on increasing the response rate. The low return rate resulted in the study being characterized as a suggestive research study rather than a conclusive study. For future studies, there should be a strong emphasis on increasing the response rate. Several strategies could be employed to increase the response rate, such as: selecting a larger population to study; increasing cooperation from the administrators via improved communication; and collaborating with a federal agency to distribute the survey.

To increase the size of the population, a researcher could select her or his sample from all colleges and universities in the United States that currently have a negotiated F&A rate agreement. Asking administrators if they are aware that PIs as well as non-PIs view the use of recovered F&A costs as a secondary or tertiary impediment to engaging in sponsored research could increase cooperation. Excluding administrators may only continue any

historic biases related to the use of recovered F&A cost, as well as appear to be criticizing the administrative decisions made by these individuals. The National Science Foundation (NSF) was crucial to the initial development of the academic research enterprise, and working with this federal agency could offer a researcher the ability to expand the population size, as well as provide financial resources to conduct additional studies.

The second recommendation would be a qualitative study of only PIs that is focused on the secondary and the tertiary barriers to engaging in sponsored research activity associated with the institution's various uses of recovered F&A costs. The qualitative study of other central administrative offices that are involved with the uses of recovered F&A costs (e.g., sponsored research accounting offices, research compliance offices, and technology transfer offices) would enhance the current understanding of the effect of perceptions on the decision to engage in sponsored research activity.

In summary, any decline in sponsored research awards to academic institutions would not only affect faculty members, but it could result in the deterioration of the overall research and development capabilities in colleges and universities and eventually of the United States (Council on Government Relations, 2008; Welker & Cox, 2006). Therefore, continued study of the secondary as well as the tertiary factors that could affect the academic research enterprise is paramount in order to further the knowledge of this aspect of academia. In addition, continued research of all aspects of the academic research enterprise could lead to opportunities, such as the establishment of a national organization for PIs, enhancing and expanding the educational opportunities available to undergraduate and graduate students due to an increase in sponsored research opportunities, contributing to the academic achievement

and stature of higher education institutions, and assisting the institutions of higher education in fulfilling their research responsibilities to this nation.

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APPENDICES

APPENDIX A

FACULTY MEMBER REACTION TO THE USE OF F&A COSTS SURVEY

Faculty Member Reaction to Recovered F&A Use Survey

Section One – Demographics

In this section, please select the answer that best describes you as a faculty member. A faculty member is a faculty or staff member who is responsible for the coordination and preparation of all submission materials related to the proposed sponsored project.

A faculty member is also responsible for the proper fiscal management and conduct of the funded project, the compliance with all terms and conditions of a sponsored agreement, and managing the project funds within the approved sponsored project budget(s).

1. What is your current academic rank?

- Professor
- Associate Professor
- Assistant Professor
- Adjunct Instructor
- Not applicable. I am an administrator or a professional staff member.
- Other _____

2. Please select the answer that best describes your current career path.

- Tenure Track
- Non-Tenure Track
- Non-Classified Administrator or Professional Staff Member
- Other _____

3. Please select one from the following options.

- Female
- Male

4. How many years of experience do you have with sponsored research activities as a faculty member? *Example: 3.75 years*

Number of Years: _____

5. From the following options, please select the answer that best describes your institution.

- Private College
- Public College
- Private University
- Public University
- Regional Campus of a Private College or Private University
- Regional Campus of a Public College or Public University
- Other _____

Section Two – Opinion Statements

In this section of the survey, please select the answer that best reflects your opinions regarding the use of recovered Facilities and Administrative (F&A) costs. F&A costs are also called indirect costs or overhead costs by different federal sponsors.

6. In my opinion, my institution's overall use of recovered F&A costs generated by my funded sponsored project(s) is fair and equitable to faculty members.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
- Do Not Know

7. What is your perception of your institution's overall use of recovered F&A costs?

- Positive Perception
- Neutral Perception
- Negative Perception
- None
- Other_____

8. How does your perception of the institution's overall use of recovered F&A costs affect your decision to engage in sponsored research activity? It causes me to be:

- Very likely to engage in sponsored research activity.
- Likely to engage in sponsored research activity.
- Neutral about engaging in sponsored research activity.
- Unlikely to engage in sponsored research activity.
- Extremely unlikely to engage in sponsored research activity.
- Other_____

9. Do you have any additional comments regarding your institution's overall use of recovered F&A costs generated from your sponsored project(s)?

10. My institution provides faculty members with a satisfactory justification regarding the use of recovered F&A costs from funded sponsored projects.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
- Do Not Know

11. What is your perception of your institution's justification related to the use of recovered F&A costs?

- Positive Perception
- Neutral Perception
- Negative Perception
- None
- Other_____

12. How does your perception of the institution's justification for the use of recovered F&A costs affect your decision to engage in sponsored research activity? It causes me to be:

- Very likely to engage in sponsored research activity.
- Likely to engage in sponsored research activity.
- Neutral about engaging in sponsored research activity.
- Unlikely to engage in sponsored research activity.
- Extremely unlikely to engage in sponsored research activity.
- Other_____

13. Do you have any additional comments regarding your institution's overall use of recovered F&A costs generated from your sponsored project(s)?

14. My sponsored programs office provides adequate services to support my sponsored research activity needs.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
- Do Not Know

15. What is your perception of the services provided by your sponsored programs office to support your research activities?

- Positive Perception
- Neutral Perception
- Negative Perception
- None
- Other_____

16. How does your perception of the services provided by your sponsored programs office affect your decision to engage in sponsored research activity? It causes me to be:

- Very likely to engage in sponsored research activity.
- Likely to engage in sponsored research activity.
- Neutral about engaging in sponsored research activity.
- Unlikely to engage in sponsored research activity.
- Extremely unlikely to engage in sponsored research activity.
- Other_____

17. Do you have any additional comments regarding the services provided by your sponsored programs office?

18. The percentage of the recovered F&A costs from my funded sponsored project(s) that are returned to my college, to my department and/or to me is fair and equitable for the time and effort I dedicate to sponsored research activity.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
- Do Not Know

19. What is your perception of the percentage of the recovered F&A costs from your funded sponsored project(s) that are returned to your college, to your department and/or to you?

- Positive Perception
- Neutral Perception
- Negative Perception
- None
- Other_____

20. How does your perception of the amount of recovered F&A costs that are returned to your college, to your department and/or to you affect your to engage in sponsored research activity? It causes me to be:

- Very likely to engage in sponsored research activity.
- Likely to engage in sponsored research activity.
- Neutral about engaging in sponsored research activity.
- Unlikely to engage in sponsored research activity.
- Extremely unlikely to engage in sponsored research activity.
- Other_____

21. Do you have any additional comments regarding the percentage of recovered F&A costs from a funded sponsored project that are returned to your college, to your department and/or to you?

22. The amount of recovered F&A costs used by my institution to provide me with administrative and clerical support is adequate for my sponsored research activity.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
- Do Not Know

23. What is your perception of the administrative and clerical support provided to you by your institution from recovered F&A costs for your sponsored research activity?

- Positive Perception
- Neutral Perception
- Negative Perception
- None
- Other_____

24. How does your perception of the administrative and clerical support provided by your institution to support your research activity affect your decision to engage in sponsored research activity? It causes me to be:

- Very likely to engage in sponsored research activity.
- Likely to engage in sponsored research activity.
- Neutral about engaging in sponsored research activity.
- Unlikely to engage in sponsored research activity.
- Extremely unlikely to engage in sponsored research activity.
- Other_____

25. Do you have any additional comments regarding the amount of recovered F&A costs that are used to provide you with administrative and clerical support for your sponsored research activity?

APPENDIX B

Introductory Letters to College and University Administrators

Graduate School of Education & Professional Development
Office of Doctoral Programs in Education

August 12, 2011

Dr. Albert L. Walker, President
Bluefield State College
219 Rock Street
Bluefield, WV 24701


Dear Dr. Walker:

How does the principal investigator's opinion of how her or his institution uses recovered F&A costs affect her or his decision to engage in sponsored research activity? This is the question I am examining in the hopes to provide insight on ways to strengthen the success of the academic research enterprise in West Virginia.

I would like to send an invitation to your faculty members to participate in this study. To accomplish this goal, I would like to request that the link to my survey is distributed via your faculty listserv by September 1, 2011. The Marshall University Institutional Review Board (IRB) approved this study on July 28, 2011 and the IRB study number is 251638. All survey information will remain anonymous and reported only in the aggregate summary.

If possible, please let me know if your faculty listserv may be used to distribute my survey by September 1, 2011. You can e-mail your response to me at bolyard16@live.marshall.edu. If you have any questions about the survey, please send me an e-mail. If you should have any questions regarding this study, please contact Dr. Michael Cunningham at 304-746-1912 or contact him via e-mail at mcunningham@live.marshall.edu. Thank you again for taking time to provide valuable assistance to me as I complete my dissertation at Marshall University.

Warmest regards,



Anne Hatfield, Doctoral Candidate
Marshall University Graduate College for Educational and Professional Development

CC: Dr. Michael Cunningham

WE ARE... MARSHALL.

Graduate School of Education & Professional Development
Office of Doctoral Programs in Education

August 12, 2011

Dr. G.T. "Buck" Smith, President
Davis and Elkins College
Liberal Arts Hall 201
100 Campus Drive
Elkins, WV 26241

Dear Dr. Smith:

How does the principal investigator's opinion of how her or his institution uses recovered F&A costs affect her or his decision to engage in sponsored research activity? This is the question I am examining in the hopes to provide insight on ways to strengthen the success of the academic research enterprise in West Virginia.

I would like to send an invitation to your faculty members to participate in this study. To accomplish this goal, I would like to request that the link to my survey is distributed via your faculty listserv by September 1, 2011. The Marshall University Institutional Review Board (IRB) approved this study on July 28, 2011 and the IRB study number is 251638. All survey information will remain anonymous and reported only in the aggregate summary.

If possible, please let me know if your faculty listserv may be used to distribute my survey by September 1, 2011. You can e-mail your response to me at bolyard16@live.marshall.edu. If you have any questions about the survey, please send me an e-mail. If you should have any questions regarding this study, please contact Dr. Michael Cunningham at 304-746-1912 or contact him via e-mail at mcunningham@live.marshall.edu. Thank you again for taking time to provide valuable assistance to me as I complete my dissertation at Marshall University.

Warmest regards,



Anne Hatfield, Doctoral Candidate
Marshall University Graduate College for Educational and Professional Development

CC: Dr. Michael Cunningham

WE ARE... MARSHALL.

Graduate School of Education & Professional Development
Office of Doctoral Programs in Education

August 12, 2011

Dr. Maria C. Bennett Rose, President
Fairmont State University
1201 Locust Avenue
222 Hardway Hall
Fairmont, WV 26554

Dear Dr. Rose:

How does the principal investigator's opinion of how her or his institution uses recovered F&A costs affect her or his decision to engage in sponsored research activity? This is the question I am examining in the hopes to provide insight on ways to strengthen the success of the academic research enterprise in West Virginia.

I would like to send an invitation to your faculty members to participate in this study. To accomplish this goal, I would like to request that the link to my survey is distributed via your faculty listserv by September 1, 2011. The Marshall University Institutional Review Board (IRB) approved this study on July 28, 2011 and the IRB study number is 251638. All survey information will remain anonymous and reported only in the aggregate summary.

If possible, please let me know if your faculty listserv may be used to distribute my survey by September 1, 2011. You can e-mail your response to me at bolyard16@live.marshall.edu. If you have any questions about the survey, please send me an e-mail. If you should have any questions regarding this study, please contact Dr. Michael Cunningham at 304-746-1912 or contact him via e-mail at mcunningham@live.marshall.edu. Thank you again for taking time to provide valuable assistance to me as I complete my dissertation at Marshall University.

Warmest regards,



Anne Hatfield, Doctoral Candidate
Marshall University Graduate College for Educational and Professional Development

CC: Dr. Michael Cunningham

WE ARE... MARSHALL.

Graduate School of Education & Professional Development
Office of Doctoral Programs in Education

August 12, 2011

Ms. Barbara Hicks, Assistant to the Provost
Marshall University
Old Main 110
One John Marshall Drive
Huntington, WV 25701

Dear Ms. Hicks:

How does the principal investigator's opinion of how her or his institution uses recovered F&A costs affect her or his decision to engage in sponsored research activity? This is the question I am examining in the hopes to provide insight on ways to strengthen the success of the academic research enterprise in West Virginia.

I would like to send an invitation to your faculty members to participate in this study. To accomplish this goal, I would like to request that the link to my survey is distributed via your faculty listserv by September 1, 2011. The Marshall University Institutional Review Board (IRB) approved this study on July 28, 2011 and the IRB study number is 251638. All survey information will remain anonymous and reported only in the aggregate summary.

If possible, please let me know if your faculty listserv may be used to distribute my survey by September 1, 2011. You can e-mail your response to me at bolyard16@live.marshall.edu. If you have any questions about the survey, please send me an e-mail. If you should have any questions regarding this study, please contact Dr. Michael Cunningham at 304-746-1912 or contact him via e-mail at mcunningham@live.marshall.edu. Thank you again for taking time to provide valuable assistance to me as I complete my dissertation at Marshall University.

Warmest regards,



Anne Hatfield, Doctoral Candidate
Marshall University Graduate College for Educational and Professional Development

CC: Dr. Michael Cunningham

WE ARE... MARSHALL.

Graduate School of Education & Professional Development
Office of Doctoral Programs in Education

August 12, 2011

Dr. J. Williams Brooks, Chancellor
Salem International University
223 West Main Street
P.O. Box 500
Salem, WV 26426-0500

Dear Dr. Brooks:

How does the principal investigator's opinion of how her or his institution uses recovered F&A costs affect her or his decision to engage in sponsored research activity? This is the question I am examining in the hopes to provide insight on ways to strengthen the success of the academic research enterprise in West Virginia.

I would like to send an invitation to your faculty members to participate in this study. To accomplish this goal, I would like to request that the link to my survey is distributed via your faculty listserv by September 1, 2011. The Marshall University Institutional Review Board (IRB) approved this study on July 28, 2011 and the IRB study number is 251638. All survey information will remain anonymous and reported only in the aggregate summary.

If possible, please let me know if your faculty listserv may be used to distribute my survey by September 1, 2011. You can e-mail your response to me at bolyard16@live.marshall.edu. If you have any questions about the survey, please send me an e-mail. If you should have any questions regarding this study, please contact Dr. Michael Cunningham at 304-746-1912 or contact him via e-mail at mcunningham@live.marshall.edu. Thank you again for taking time to provide valuable assistance to me as I complete my dissertation at Marshall University.

Warmest regards,



Anne Hatfield, Doctoral Candidate
Marshall University Graduate College for Educational and Professional Development

CC: Dr. Michael Cunningham

WE ARE... MARSHALL.

Graduate School of Education & Professional Development
Office of Doctoral Programs in Education

August 12, 2011

Dr. Suzanne Shipley, President
Shepherd University
Ikenberry Hall 207
P.O. Box 5000
Shepherdstown, WV 25443-5000

Dear Dr. Shipley:

How does the principal investigator's opinion of how her or his institution uses recovered F&A costs affect her or his decision to engage in sponsored research activity? This is the question I am examining in the hopes to provide insight on ways to strengthen the success of the academic research enterprise in West Virginia.

I would like to send an invitation to your faculty members to participate in this study. To accomplish this goal, I would like to request that the link to my survey is distributed via your faculty listserv by September 1, 2011. The Marshall University Institutional Review Board (IRB) approved this study on July 28, 2011 and the IRB study number is 251638. All survey information will remain anonymous and reported only in the aggregate summary.

If possible, please let me know if your faculty listserv may be used to distribute my survey by September 1, 2011. You can e-mail your response to me at bolyard16@live.marshall.edu. If you have any questions about the survey, please send me an e-mail. If you should have any questions regarding this study, please contact Dr. Michael Cunningham at 304-746-1912 or contact him via e-mail at mcunningham@live.marshall.edu. Thank you again for taking time to provide valuable assistance to me as I complete my dissertation at Marshall University.

Warmest regards,



Anne Hatfield, Doctoral Candidate
Marshall University Graduate College for Educational and Professional Development

CC: Dr. Michael Cunningham

WE ARE... MARSHALL.

Graduate School of Education & Professional Development
Office of Doctoral Programs in Education

August 12, 2011

Dr. Robin C. Capehart, President
West Liberty University
101 Faculty Drive
P.O. Box 295
West Liberty, WV 26074-0295

Dear Dr. Capehart:

How does the principal investigator's opinion of how her or his institution uses recovered F&A costs affect her or his decision to engage in sponsored research activity? This is the question I am examining in the hopes to provide insight on ways to strengthen the success of the academic research enterprise in West Virginia.

I would like to send an invitation to your faculty members to participate in this study. To accomplish this goal, I would like to request that the link to my survey is distributed via your faculty listserv by September 1, 2011. The Marshall University Institutional Review Board (IRB) approved this study on July 28, 2011 and the IRB study number is 251638. All survey information will remain anonymous and reported only in the aggregate.

If possible, please let me know if your faculty listserv may be used to distribute my survey by September 1, 2011. You can e-mail your response to me at bolyard16@live.marshall.edu. If you have any questions about the survey, please send me an e-mail. If you should have any questions regarding this study, please contact Dr. Michael Cunningham at 304-746-1912 or contact him via e-mail at mcunningham@live.marshall.edu. Thank you again for taking time to provide valuable assistance to me as I complete my dissertation at Marshall University.

Warmest regards,



Anne Hatfield, Doctoral Candidate
Marshall University Graduate College for Educational and Professional Development

CC: Dr. Michael Cunningham

WE ARE... MARSHALL.

Graduate School of Education & Professional Development
Office of Doctoral Programs in Education

August 12, 2011

Dr. Michael Adelman, President
West Virginia School of Osteopathic Medicine
400 North Lee Street
B205A, B Building
Lewisburg, WV 24901

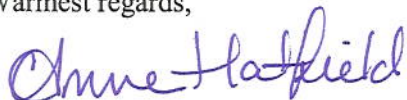
Dear Dr. Adelman:

How does the principal investigator's opinion of how her or his institution uses recovered F&A costs affect her or his decision to engage in sponsored research activity? This is the question I am examining in the hopes to provide insight on ways to strengthen the success of the academic research enterprise in West Virginia.

I would like to send an invitation to your faculty members to participate in this study. To accomplish this goal, I would like to request that the link to my survey is distributed via your faculty listserv by September 1, 2011. The Marshall University Institutional Review Board (IRB) approved this study on July 28, 2011 and the IRB study number is 251638. All survey information will remain anonymous and reported only in the aggregate summary.

If possible, please let me know if your faculty listserv may be used to distribute my survey by September 1, 2011. You can e-mail your response to me at bolyard16@live.marshall.edu. If you have any questions about the survey, please send me an e-mail. If you should have any questions regarding this study, please contact Dr. Michael Cunningham at 304-746-1912 or contact him via e-mail at mcunningham@live.marshall.edu. Thank you again for taking time to provide valuable assistance to me as I complete my dissertation at Marshall University.

Warmest regards,



Anne Hatfield, Doctoral Candidate
Marshall University Graduate College for Educational and Professional Development

CC: Dr. Michael Cunningham

WE ARE... MARSHALL.

Graduate School of Education & Professional Development
Office of Doctoral Programs in Education

August 12, 2011

Dr. Hazo W. Carter, Jr., President
West Virginia State University
P.O. Box 1000
103 Ferrell Hall
Institute, WV 25112-1000

Dear Dr. Carter:

How does the principal investigator's opinion of how her or his institution uses recovered F&A costs affect her or his decision to engage in sponsored research activity? This is the question I am examining in the hopes to provide insight on ways to strengthen the success of the academic research enterprise in West Virginia.

I would like to send an invitation to your faculty members to participate in this study. To accomplish this goal, I would like to request that the link to my survey is distributed via your faculty listserv by September 1, 2011. The Marshall University Institutional Review Board (IRB) approved this study on July 28, 2011 and the IRB study number is 251638. All survey information will remain anonymous and reported only in the aggregate summary.

If possible, please let me know if your faculty listserv may be used to distribute my survey by September 1, 2011. You can e-mail your response to me at bolyard16@live.marshall.edu. If you have any questions about the survey, please send me an e-mail. If you should have any questions regarding this study, please contact Dr. Michael Cunningham at 304-746-1912 or contact him via e-mail at mcunningham@live.marshall.edu. Thank you again for taking time to provide valuable assistance to me as I complete my dissertation at Marshall University.

Warmest regards,



Anne Hatfield, Doctoral Candidate
Marshall University Graduate College for Educational and Professional Development

CC: Dr. Michael Cunningham

Graduate School of Education & Professional Development
Office of Doctoral Programs in Education

August 19, 2011

Dr. James P. Clements, President
West Virginia University
103 Stewart Hall
P.O. Box 6201
Morgantown, WV 26506-6201


Dear Dr. Clements:

How does the principal investigator's opinion of how her or his institution uses recovered F&A costs affect her or his decision to engage in sponsored research activity? This is the question I am examining in the hopes to provide insight on ways to strengthen the success of the academic research enterprise in West Virginia.

I would like to send an invitation to your faculty members to participate in this study. To accomplish this goal, I would like to request that the link to my survey is distributed via your faculty listserv by September 8, 2011. The Marshall University Institutional Review Board (IRB) approved this study on July 28, 2011 and the IRB study number is 251638. All survey information will remain anonymous and reported only in the aggregate summary.

If possible, please let me know if your faculty listserv may be used to distribute my survey by September 6, 2011. You can e-mail your response to me at bolyard16@live.marshall.edu. If you have any questions about the survey, please send me an e-mail. If you should have any questions regarding this study, please contact Dr. Michael Cunningham at 304-746-1912 or contact him via e-mail at mcunningham@live.marshall.edu. Thank you again for taking time to provide valuable assistance to me as I complete my dissertation at Marshall University.

Warmest regards,



Anne Hatfield, Doctoral Candidate
Marshall University Graduate College for Educational and Professional Development

CC: Dr. Michael Cunningham
Mr. Alan B. Martin

WE ARE... MARSHALL.

Graduate School of Education & Professional Development
Office of Doctoral Programs in Education

August 12, 2011

Mr. Richard Beyer, President
Wheeling Jesuit University
316 Washington Avenue
Wheeling, WV 26003

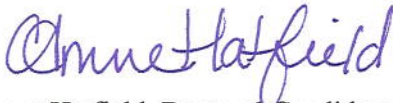
Dear Mr. Beyer:

How does the principal investigator's opinion of how her or his institution uses recovered F&A costs affect her or his decision to engage in sponsored research activity? This is the question I am examining in the hopes to provide insight on ways to strengthen the success of the academic research enterprise in West Virginia.

I would like to send an invitation to your faculty members to participate in this study. To accomplish this goal, I would like to request that the link to my survey is distributed via your faculty listserv by September 1, 2011. The Marshall University Institutional Review Board (IRB) approved this study on July 28, 2011 and the IRB study number is 251638. All survey information will remain anonymous and reported only in the aggregate summary.

If possible, please let me know if your faculty listserv may be used to distribute my survey by September 1, 2011. You can e-mail your response to me at bolyard16@live.marshall.edu. If you have any questions about the survey, please send me an e-mail. If you should have any questions regarding this study, please contact Dr. Michael Cunningham at 304-746-1912 or contact him via e-mail at mcunningham@live.marshall.edu. Thank you again for taking time to provide valuable assistance to me as I complete my dissertation at Marshall University.

Warmest regards,



Anne Hatfield, Doctoral Candidate
Marshall University Graduate College for Educational and Professional Development

CC: Dr. Michael Cunningham

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APPENDIX C

Invitation E-mails to Faculty Members

Introductory E-Mail to Faculty Members

Dear Faculty Member:

How does your opinion of your institution's use of recovered Facilities and Administrative (F&A) costs affect your decision to engage in sponsored research activity? Researchers at Marshall University are examining this question from the perspective of a principal investigator.

You are invited to participate in a research project entitled, "*Principal Investigators' Reaction to the Institutional Use of Recovered Facilities and Administrative Costs*" to analyze the effect the institution's use of recovered F&A costs has upon your willingness to engage in sponsored research activity.

The study is being conducted by Dr. Michael Cunningham from the Marshall University Graduate College for Educational and Professional Development. In addition, this study is being conducted as part of the dissertation requirements for Ms. Anne Hatfield. The Marshall University Institutional Review Board (IRB) approved this study on July 28, 2011 and the IRB study number is 251638.

Your voluntary participation is essential to the success of this research study. Please share your opinions by taking this brief survey: https://www.surveymonkey.com/s/PI_FA_Reaction

The survey should only take 15 to 20 minutes to complete and all survey responses will be anonymous and reported only in the aggregate summary. In addition, no Survey Monkey (electronic survey tool) custom values will be created for any participant that could be used to identify a participant. If possible, please complete the survey by September 23, 2011.

If you have any questions regarding this study, please contact Dr. Michael Cunningham, Leadership Studies Program Director by e-mail at mcunningham@marshall.edu or by phone at 304-746-1912 or 800-642-9842 ext.61912. You can also contact Ms. Anne Hatfield, student researcher, via e-mail at bolyard16@live.marshall.edu.

Follow Up E-Mail to Principal Investigators

Dear Faculty Member:

You recently received an e-mail requesting your participation in an IRB approved study examining the effect of your institution's use of recovered F&A costs may have on your decision to engage in sponsored research activity.

If you have already completed the survey, thank you for your assistance and please disregard this e-mail. If not, please complete the online survey by September 23, 2011. The survey should only take approximately 15 to 20 minutes to complete. All survey responses will be anonymous and reported only in the aggregate summary. The survey can be accessed at http://www.surveymonkey.com/PI_REACTION.

I truly appreciate you taking time to participate in this study during an extremely hectic time for faculty members. By completing this survey, you are providing valuable assistance that will help me complete my dissertation at Marshall University.

If you have any questions regarding this study, please contact Dr. Michael Cunningham, Leadership Studies Program Director by e-mail at mcunningham@marshall.edu or by phone at 304-746-1912 or 800-642-9842 ext.61912. You can also contact me via e-mail at bolyard16@live.marshall.edu.

Warmest regards,
Anne Hatfield

APPENDIX D
IRB Certification



Office of Research Integrity
Institutional Review Board
401 11th St., Suite 1300
Huntington, WV 25701

FWA 00002704

IRB1 #00002205
IRB2 #00003206

July 28, 2011

Michael Cunningham, Ed.D.
Leadership Studies

RE: IRBNet ID# 251638-1

At: Marshall University Institutional Review Board #2 (Social/Behavioral)

Dear Dr. Cunningham:

Protocol Title: [251638-1] THE ECONOMICS OF PERCEPTION: THE EFFECT OF PRINCIPAL INVESTIGATORS' REACTION TO THE INSTITUTIONAL USE OF RECOVERED FACILITIES AND ADMINISTRATIVE COSTS UPON THEIR DECISION TO ENGAGE IN SPONSORED RESEARCH ACTIVITY IN WEST VIRGINIA

Expiration Date: July 28, 2012

Site Location: MUGC

Type of Change: New Project APPROVED

Review Type: Exempt Review

In accordance with 45CFR46.101(b)(1), the above study and informed consent were granted Exempted approval today by the Marshall University Institutional Review Board #2 (Social/Behavioral) Chair for the period of 12 months. The approval will expire July 28, 2012. A continuing review request for this study must be submitted no later than 30 days prior to the expiration date.

This study is for student Anne Hatfield.

If you have any questions, please contact the Marshall University Institutional Review Board #2 (Social/Behavioral/Educational) Coordinator Michelle Woomer at (304) 696-4308 or woomer3@marshall.edu. Please include your study title and reference number in all correspondence with this office.

APPENDIX E
Curriculum Vitae

Anne Hatfield
1701 Morgantown Avenue
Fairmont, WV 26554
ahatfield07@gmail.com

EDUCATION

August 2005 to May 2012
Ed.D. – Educational Leadership
Area of Emphasis: Education Law
Marshall University Graduate School for Educational and Professional Development
Dissertation:

August 1996 to May 1998
M.S. – Community Health Education
West Virginia University School of Medicine

August 1993 to May 1995
B.S. – Health Services Administration
West Virginia Institute of Technology

ASSOCIATION MEMBERSHIPS

National Council of University Research Administrators
Society of Research Administrators International

PROFESSIONAL EXPERIENCE

July 2009 to Present
West Virginia University - Office of Sponsored Programs
Manager, Grant Budget Assistance Unit

August 2008 to June 2009
West Virginia University - Office of Sponsored Programs
Grant Resource Specialist, Pre-Award Unit

March 2003 to July 2008
West Virginia University Institute of Technology – Office of Sponsored Programs
Director

PROFESSIONAL CERTIFICATIONS

March 2011 to Present
Certified Pre-Award Research Administrator
Research Administrators Certification Council

December 2011 to Present
Certified Research Administrator
Research Administrators Certification Council

APPENDIX F

Qualitative Comments from the PI Group

Survey Question 12

- % of indirect costs has risen - use of indirect funds is inequitable - "credit" for grants re: merit/evaluation is low - time & energy costs are high in grant writing and internal institutional support is low - I'll have to feel very passionate about a topic before I go down the grant-writing path again. It's just not worth it.
- A greater fraction of F&A should be used to allow the department to help out PIs when needed.
- A small but sufficient percentage is given to the PI to provide an incentive to participate in sponsored projects. Such returns are necessary to cover costs not directly applicable to projects but necessary to support a research program.
- Additional F&A should be invested in professional development and efforts (meetings, travel) for getting external funding.
- Although there is no return on F&A to our department and no benefit (directly) to the principal investigators, and no way to use any portion of the F&A for investing in future projects (since we receive none of it), as a professional I believe it is still important to pursue funding for research and educational purposes
- Amt to PIs not reflective of increase in workload.
- As an engineering professor, I don't have any choice about seeking and obtaining research funding. I do resent that the overhead funds go largely to support administrative bloat. We have far too many bloodsuckers in Stewart Hall.
- Clarification on Question #11, it is a bit confusing. Briefly, my answer is that the Institution's use of F&A costs have no effect on my decision to conduct research.

- Cost sharing is an impediment to completion of internal grant forms. They should be more flexible.
- F&A is like a "perk". It does not motivate me to actually write grants. F&A simply gives me some additional funds for my work. I seek grants to better serve West Virginia.
- F&A is too high. It gives me a choice: undercut what the project should do or bare the costs personally.
- Frankly, I don't think it requires nearly as much as they argue it does to cover their costs.
- Funds do not appear to be allocated in accordance to what the claims of the institution. Justification of F&A is contrived and doesn't always reflect real costs. a very small % of funds actually DIRECTLY support projects
- Have not been PI on a sponsored project yet @ my current institution. Just got here.
- How my institution uses recovered F & A costs has no bearing, nor has it (I have been at other research institutions with different policy regarding use of recovered F&A costs) on whether or not I engage in sponsored research.
- I am neutral on this issue because I do not know how they use the funds that come back to the university.
- I am not really aware of how recovered F&A costs are used by the institution. I assume that some are used to cover administrative support costs for projects (a share of heat,lights, and so on). Other than that, I don't know.
- I am yet to see my institution play an active or important role in my research activity (besides providing office and paying the electric bill). Anytime, I needed their help (such as helping me to put my budget in the form that the agency requests) my institution has

failed to help. This is true at college level as well as at the University level. Very disappointing.

- I appreciate the decision of my Institution to waive F & A costs on service/research grants allocated by the State Legislature specifically for the purpose of health promotion.
- I cannot answer Q11 given the choices. I have no idea how F&A is used by WVU, nor would this knowledge have anything to do with my decision to pursue externally-funded research. F&A is just seen as a given; my career trajectory is closely linked to my ability to secure funding so I apply for grants no matter how WVU handles these funds.
- I do not know what is done with the F&A. I have asked a number of times and I get a different, fairly vague answer. Some units return a small portion of the F&A to investigators for use in other research, mine does not (or won't). My unit does not provide any support for grant writing or management, they will not even house project staff. I think a large chunk of the F&A goes to OSP and Research Corp. These units should get all of it, they are the only units that actually support research.
- I don't know the overall use.
- I don't know much about the use of recovered F&A costs. I know F&A is about 48% but I have never seen a justification of how they came up with that particular number.
- I don't think question #11 is a reasonable question. I have to engage in sponsored activity. Most researchers do. If you do not, you don't get promotion or tenure. How you *feel* about the F&A taken out is not relevant. You have to get as many grants as possible, like it or not, if you want to keep your job.
- I go after money for my Lab - F&A is part of the game.
- I have no control on

- I have, at times, received some F&A costs back from my college to help run my NSF funded programs.
- I think it is too high and none of it is used to assist with the program. I'm required to do the budget, purchasing, everything.
- I view the policy as a necessary part of doing business. Our institution's rates are very competitive with other institutions of similar size and research activity.
- I would do the same research regardless of the institutions' use of F&A costs. I research for the sake of research. That this institution uses F&A costs in a way that I personally like, is simply a bonus.
- I would like lower F&A rates, but no matter what they are I will still seek to find external funding. As those rates rise, academia will be less likely to secure those external funds because the private sector will likely be unwilling to pay.
- I'm in the dark, concernin how those funds are used.
- Increasing the percentage returned to faculty members (PI) would help. The way it is, we are a giant cash cow for the University.
- Indirects appeared to be used to upgrade facilities for administrative support of research and none goes to upgrade facilities of researchers.
- Institution's use of F&A funds does not affect my decision to participate in sponsored research.
- is not transparent and does not provide incentive to the invertigators
- It has improved in the past 10 years.....more comes back to our college and our program.

- It is just as easy for us to cut and paste in the required areas into the grants.gov forms. they don't know enough about research or other areas of research, such as the IRB, to be of any help. They cause a great deal of problems when we spend our own grant money. They really piss me off, it is nearly enough to stop me from engaging in these activities....I have certainly thought of it.
- It is wasted and does not help the PIs who generat the F&A.
- more transparency is needed in accounting for the 25% of F&A income that is taken by the President's Office
- Much of the F&A is returned to the investigators, which seems like a bad policy to me. I would prefer to see the funds invested strategically to enhance our research capabilities as an institution. I don't see much of this happening at the college and departmental level.
- My college has a policy of returning some of the F&A costs they recieve from the university to me in a discetionary fund. I appreciate this policy.
- My desire to do federally funded research depends very little on how the University allocates my F&A costs. In other words, I have not identified any egregious problems that would make me rethink my desire to do research.
- My institution does not inform PI how they use/distribute F/A costs.
- My involvement was several years ago. SInce then, we have a new administration and VP of finance, so I don't know the current situation.
- My perception of my institution's overall use of recovered F&A costs is not what causes me to engage in sponsored research activity- it is required in my appointment letter that I do so! But by returning a bit of F&A costs to the PI, both the institution and the PI will be successful at sustaining an externally funded research program.

- Neutral in my opinions above and below because my university just enacted a new indirect cost policy. My perception was previously negative regarding my institutions policy, but if the new one is implemented as enacted, things will be much improved.
- No
- No
- no
- No
- no
- None
- Not my only institution. Last place withdrew support from F & A ---and I incorporated, consulted, and funded other institutions And, you ask about research only--what about training? service? as point of grants
- Our institution has a "limited" contract with NIH and NSF in terms of F&A. Thus, our institution does not tend to get much F&A, nor does our insitution recieve much federally funded grant money.
- Our institution has too heavy teaching loads for a robust research program. While the recovery of Fand A is well intended with the PI maybe getting access to a portion of it, the size of the research grants that we can compete for allowing full Fand A charges since very little of the the faculty members time can be used as match to win larger grants.
- Part of F&A should go to the investigator. At out institution and in my department, we get exactly 0%.
- PIs and the departmenst need to incentvized. They are ones who generate these \$.

- PIs get very little support or are required to use secretaries etc who do not get additional compensation for the additional workload. All MURC and presidential portions are used without input on pet projects not supporting or benefiting PIs
- Q# 11 -- My institution's use of F & A does NOT influence my engagement at all...but there was no option for that.
- Question 11 is not worried in a manner to provide useful feedback. We must engage in sponsored research, therefore, our perception of the use of the F&A has no affect on this decision.
- research F&A appears to be distributed back to departments in a manner that does not provided sufficient incentive for clinicians to do research. There is no financial incentive for clinic departments to conduct research. Yet the university's mission is to increase clinical translational research.
- Sharing more with the Researcher/Faculty has become a great incentive.
- The "perception" is not so much the issue as the "actual" use. If we had F&A distributions available to us, to use with our discretion, we could do things like pay students to perform new research that could lead to proposals or we could visit potential grantees. These are things that are important to sustain research but are not appropriate to pay for from existing grants.
- The administration is TOP HEAVY & thsi is the faculty perception; true or not is a different, IE, as a minimum that perception must be changed to boost faculty productivity.
- The biggest issue is that it is very unclear where all these funds go. They might be actually used to create additional layers of administration who need to do something to

justify their existence ...at times that 'something' does not help the PIs. More of the F&A need to be returned to the PIs - or the F&A costs should at least be reduced. It is also unfair that increases in F&A costs are passed on to the PIs for multi year projects when the rate increases in the middle of the project.

- The cost rate applied is arbitrary, and has never shown to be related to any actual costs incurred by the university.
- The F & A requirements are outdated at best. MURC uses one schedule to extract F&A dollars that relates to direct federal research projects. It is completely inadequate for state level grants and I believe limits the ability to get state level funding. There is absolutely no reason funds should be going to the presidents office. More should be retained by MURC so they can get and keep good people.
- The F&A are used by the central university administration. The medical center received only 20% and none of that ever comes directly to me or the department.
- The F&A does not impact my decision to do research. It is a budgetary issue, in terms of the ever increasing percentage that is asked for, but federally agencies generally provide what is asked. Sometimes the budget is impacted by how much F&A is allowed or if it must be part of the budget. the university has been flexible in adjusting F&A percents if necessary/
- The Feds do not cover real cost of the research. We are there fore left holding the bag because we get no indirects.
- The funded projects are the focus, F&A is just a cost of doing business
- The institution is TOP-HEAVY with administrators and regulators & bean-countors
- The institution returns a portion of the F&A to the investigator, which is a nice incentive.

- The institution's F&A costs hamper the ability to secure funding, and these funds are not appropriate back to the College, School, or researcher that obtains the funding. They further supply little support in the documentation process of the grant.
- The institutions use of F&A funds really has no effect on my decisions to engage in research. It is just a fact of life, one that I don't like, but there is really nothing I can do about it. The main objection is that the faculty who generate the F&A funds have no say over how it is used, and it mostly used to support administration, who do nothing to generate the money in the first place.
- The question above does not allow for a valid response.
- The university is determined to collect the maximum amount of F&A possible even when the total award is very small. This makes it difficult to get sufficient money to implement the project; for example, if the award is \$30,000 and the F&A is 40% for a research project, then then there is really only \$18,000 for the activities. That means it is more difficult to complete small projects and even large projects (\$100,000 or better) may be underfunded. In addition, most of the F&A money goes to the university, some to the College, very little to the department or program, and almost none to the PI.
- There is no way at the present in our HSC for the F&A to benefit the department or the PI who helped to generate it.
- There is not a strong correlation. My position is dependent upon obtaining funding. As a funded investigator, I can ask my institution to spend F&A in certain ways, but if they don't, I will still go after funding.
- There is nothing I can do about my institution's F&A policy but I NEED to get grant support so apply for grants regardless of the institution's F&A policy.

- They are necessary and reasonable to support the facilities and utilities used for research that cannot be charged as direct costs. My current institution charges lower F&A rates than other institutions where I've worked, and improvements to research facilities are visibly apparent.
- They lack transparency, are poorly communicated and involve too much faculty input beyond those faculty at very high levels of administration.
- they take money to pay for insurance that your salary already pays for. they misinterpret the circular to limit the pay. they make it unattractive to do funded research. They do not provide flexible work schedules for those of us who want to research.
- Too much administrative overhead and governmental regulations imposed on office of sponsored programs.
- Too often these recovered funds are used to hire more administrators and administrative staff, rather than to pay costs of research or encourage new research. Read "The Fall of the Faculty" by Ben Ginsberg to understand the excessive growth of administration in universities.
- Use of F&A costs has no role in my decision to engage in sponsored research activity. I am in a research faculty position and completely support myself through sponsored research.
- Use of recovered F&A costs has little to no bearing on my decision to engage in sponsored research activity because obtaining grant funding is a condition of tenure for me.

- Yes. I would like to know more about what is meant by "Recovered F&A costs generated from sponsored research projects." I also would like to know more about federally funded research projects, so I can take advantage of this opportunity.

Survey Question 16

- lack of transparency leads people to believe their some to hide.
- I believe it's called "socialism."
- See above and quit asking the same question twice.
- Again, cannot answer question above. Worded poorly.
- No
- Returning some part of F&A to the principal investigators and departments, which support and generate the research that generates the F&A would enhance research productivity
- Formula is hard to find. I have never heard the justification for distribution.
- No
- I will engage in sponsored research activities regardless of my institutions use of recovered F&A.
- Q#15 -- no relation between these 2 for me
- Same question as and response for 12 above.
- I have never been provided with any official written justification for F&A.
- very poor questions - we do research to advance - I would not stop doing it because of more or less F&A -- stupid question -

- I would engage in research regardless of the institution's justification. The institution's justification does not cause me to do anything. Sorry to say this, but that is a terribly worded question. I think it will bring in some misguided information.
- Have not been PI on a sponsored project yet @ my current institution. Just got here.
- Use of F&A does not impact my level of research engagement.
- I've never asked about details because I've never had reason to doubt the uses. I know some of the general places the F&A costs are used, and they seem appropriate.
- I don't think justification is the right word. It should be "explanation". However, it would hard for me to believe that the justification or explanation of how F&A recovery is used would bear on whether an investigator would pursue a funded research opportunity.
When one hears that large amounts of recovered F&A costs are redeployed to fund some institution project, it raises doubts about the validity of the F&A rates.
- There is NO justification provided to the PIs about the use of recovered F&A costs.
- They make little effort to justify their arbitrary and capricious use of these funds.
Particularly disgusting is the retention of failed administrators on salary in makeshift positions that yield little or no value to the institution.
- The university seems to be using F&A to pay for regular budget items, which is somewhat understandable given the university's fiscal situation, but this is something that does stifle research and should not be done in the long run.
- See #12
- Same as #12.
- 15 is a badly worded question.

- Yes. I would like to see a definition of "Recovered F&A costs generated from funded research projects." I would also like to learn more about privately funded, corporately funded, and federally sponsored projects, so I can take advantage of opportunities there. This is just something I feel I have not had enough education and training about.
- They do not provide a justification for how they use the funds.
- When the bulk of the money goes to the institution/research office rather than to the PI and research assistants, what incentive is that for me? Especially if I teach full-time? If the university wants me to conduct high-visibility research, they need to make it worth my time. A course release would be great, but those are nearly impossible to get; therefore, the financial incentive is the only reason for me to participate -- and when that incentive is so low, I've no reason to do the research.
- None
- Justifications: what justifications?
- Same answer as #12.
- The previous question should have an NA option, since previous questions indicate I don't have a perception on the institution's justification.
- no
- Again, Q15 cannot be answered with the information I have.
- More of the F&A needs to be put back into farthing enhancing research activities at the University
- See my previous comment. Also, I believe questions 11 and 15 are not clearly formulated. The use of F&A costs is one of many aspects that determine my engagement in sponsored research. Overall, I have a general feeling that the F&A, along with tuition

revenue, goes mostly to support administrators' salaries and sports venues but I have never seen a calculation of that,

- My job is to apply from sponsored research activity, so the F&A issues do not impact my need to apply aggressively for grants.
- Other than publishing the percentages going to central admin, the college, the department and finally to the faculty member, I have never seen a breakdown of where the dollars actually go. It's not hard to guess where most of them end up, though.
- Don't know so difficult to answer.
- I don't know what my institution uses F&A costs for.
- Old policies still in place. Expect changes when the new VP for Research starts after November 1
- No
- Uses of F&A at university, college and department level are not made clear
- If you want to apply for these grants, you pretty much have to follow the institution's policies re: F & A costs. There's little time to influence changes of policy and write grants and fulfill other responsibilities.
- Like many other faculty members, my pursuit of federally funded project is not a function of how F&A are used in my institution, simply because I have to do research and I love to do research. My institution's use of F&A supposed to be a help, but I will be grateful if it is not a hinder (because sometimes it is). Lack of transparency in what they do with these funds is one of the sources of the problem.
- I am not aware of any institution's justification.
- same as above

- I have no knowledge of my institution's justification regarding the use of recovered F&A costs generated from your funded sponsored projects.
- My knowledge is based on many years of experience. The information actually provided directly to faculty is most likely not sufficient. It is hard to distinguish knowledge gained through contacts and experience from that institutionally delivered.
- See comments in #12.
- I understand the process for most of how the institution uses the costs, but am unclear what happens when it gets to the college.
- See above
- I still have to do my own accounting on a never ending moving target that is months behind in even basic accounting. Changes are then made without any consultation. Ex. Email months later. It has been decided we used this fund to cover some expense with no explanation or input. We did this. Live with it
- I would say in general that the institutions use of F&A is irrelevant for me in my choice of engaging in sponsored research.
- Faculty at my institution are required to obtain grants for tenure and promotion. What happens with the F&A does not influence our decision to write grants because the other factors causing us to write them are so powerful.
- I like to think my research (and grant-writing) activity can contribute to the successful operation of the institution.
- F&A is the last thing I think about as I start to prepare a proposal. Much more troubling is match or winning an award

- The reason given is that it is expensive to maintain Sponsored Programs. However, I rarely make use of their services except that I am required to have them give final approval of all submissions. So more experienced PIs (who also tend to get larger grant awards) are subsidizing the entire enterprise. I also find it unfair that even service projects (such as serving as editor for a professional journal) are now assessed F&A, which reduces the amount available for GA support or faculty stipend) even though there is little to no effort required by Sponsored Programs.
- no
- I would do the same research regardless of the institutions' use of F&A costs. I research for the sake of research. That this institution uses F&A costs in a way that I personally like, is simply a bonus.
- As in the case of 12, there is no relationship between the institution's justification for the use of recovered F&A costs and whether or not I engage in sponsored research.
- Although my decision to engage in sponsored research is unaffected, my institutional commitment and morale is seriously affected.
- There is little justification. The perception is that the University uses recovered F&A costs to fund pet projects instead of returning some of the funds to PI to help in funding the expansion of their research.
- Again, my perception of the justification for use of F&A funds does not affect my decision to do research. I do research because I am a scientist. I would like it if the institution made better use of recovered F&A costs, but I would continue to do research no matter what is done with recovered F&A costs.

- There is nothing I can do about my institution's F&A justification but I NEED to get grant support so apply for grants regardless of the institution's F&A justification.
- Neutral in my opinions above and below because my university just enacted a new indirect cost policy. My perception was previously negative regarding my institution's policy, but if the new one is implemented as enacted, things will be much improved.
- No
- No justification was provided. However, this was a few years ago.

Survey Question 20

- I engage in sponsored research and proposal writing because it is a requirement of my job description.
- The office website states the personnel can help faculty locate grants and funding agencies appropriate for the topic/purpose. A colleague and I were exploring an area of study a couple of years ago and contacted their office. The "help" we received was laughable! We were informed of some general sites where we could look online ourselves and she wished us luck. She also provided verbal information that both my colleague and I knew was incorrect. Some help.
- Things could be done better. i.e. I can't get financial reports in a timely manner that do any good for running a project. I still must keep another set of books just to know where I stand.
- Poorly worded, cannot answer.
- No
- Although largely a flawed system that takes too long to process and has too many errors, it is a necessary evil.

- The financial accounting services offered by my university are somewhat unprofessional and unhelpful.
- Staff willing to work after hours to meet tight timelines. very excellent in budget details, communication with finders for FOA details.
- No
- I will engage in sponsored research activities regardless of my institutions sponsored programs involvement.
- Q#19 -- not at all
- I do not know the current use of overhead cost in grants received, They used to be fair. Thus I shall not answer the questions below.
- They are really responsive and helpful.....Office of Sponsored Programs at WVU.
- Same again?
- Again - very poor question
- Again, I would engage in research regardless of anything that sponsored programs did. Their services don't cause me to do anything.
- Have not been PI on a sponsored project yet @ my current institution. Just got here.
- OSP support does not impact my research engagement.
- They've been helpful in tracking down information and saving me time when I've needed additional information the first time I'm applying to a new funding agency. They don't do anything I couldn't do for myself, but it saves me the time of doing it myself when up against an application deadline. Mostly, they need to do the regulatory compliance functions needed for grants that investigators only hear about if they haven't followed the regulations.

- It seems that a lot of faculty perceive sponsored programs as a hurdle rather than a service. I think sponsored programs would do better to actively market itself as a service to support the investigator.
- The Sponsored Program at WVU is a well run operation. They truly help the PIs. There is something incorrect about the way you set up this server. Myself and most of my colleagues will still engage in proposal writing and therefore will keep on generating this revenues. In other words we will keep on keeping going a system which myself and many others do not believe it is fair.
- Most of the faculty that I work with have negative opinion of our Sponsored Programs Office. They act like they are the bosses without realizing that if faculty stop writing proposal , then they will have no work.
- All of the questions regarding how the F&A use affects my decision to engage in sponsored research activity are missing the following option, which I would have selected in all instances: The institutional use of recovered F&A has no effect on my decision to engage in sponsored research activity. I will be very engaged in research activity regardless of the F&A structure.
- It has improved, but still is wanting in real service. Its focus is on being sure to collect overhead (F&A).
- See #12
- Yes, but I can't seem to enter them here.
- I am extremely dissatisfied with the services and support provided by the sponsored programs office, however, I am likely to continue these activities because they are in

conjunction with public schools that need the resources and related training we can provided through grant sponsored projects.

- If I were inclined to participate in sponsored research (and given the unsatisfactory financial incentive, I'm not), what would've been helpful to me is someone to really help pull the grant application together. That's an incredibly time-consuming process, and if there were people assigned to manage that (e.g., someone assigned to NSF grants, someone to NEH, etc.), it would've taken some of the load off my shoulders. That's the other reason I don't do sponsored research anymore. It's simply too labor-intensive on the front end and all the people in the office can do, apparently, is reiterate what the grant application says. I don't need to know what it says. I can read. I need to know what it means.
- Service as inefficient as can be.
- Same as #12.
- OSP support for our unit's research activities is probably higher than for the average faculty member. Other strong research institutions have OSP pre and post award staff assigned to each college, and in some cases, to divisions or other levels in the university hierarchy.
- no
- Again, the University's rules and behaviors are exogenous to my decision to apply for external funding. Having a grant makes more more independent so no matter what, it is good to have external funding.
- The research office makes it harder to submit for competitive funding rather than being of service. They have also dropped the ball on several submissions.

- Pre-award needs to sponsor workshops on grant writing, mock study section reviews etc.
- the shortcomings in my institutions utilization of F-A funds derive from ineffectual Office of Sponsored Research, to which a large portion of F-A monies are posted. My understanding is that this differs from the experience of other institutions
- Again, sponsored programs is not the reason I would or would not engage in research. In case that is what you are asking, my perception of the sponsored programs office has a negative effect on my enthusiasm in engaging in sponsored research. Same for questions 11 and 15. The use of F&A funds is completely opaque therefore I think they are used for anything but research support.
- Hoping the new VP for Research will straighten out the messes we have with accounting, purchasing and contract support.
- Additional help, support, and a more realistic timeframe for submission would be helpful.
- good but can be improved by being more investigator friendly
- Very helpful OSP
- No
- Many routine items that could be carried out by OSP are passed on to the PIs.
- A number of bureaucratic hoops to jump through but the office provides training and support
- Excellent help!
- I'll still do it, but for example, an NSF proposal takes about 30 hours to complete. So far I have received zero help in the college and a little help in the University's OSP.
- this survey is becoming redundant...they offer little support or reward and take as much as they can to basically write a few paychecks.

- The handling of F&A costs and the services provided by the sponsored programs office has no bearing on my efforts to seek external funding. Pursuing grants is expected of all faculty with a research appointment. I will continue to seek such funding regardless of how F&A costs are withheld or distributed.
- The services provided are not adequate and not reasonable for research very high university. These are a major hurdle to grow the research enterprise.
- Sponsored programs makes it more difficult to submit proposals. Everyone that works there should be fired. Regardless, I still have to submit as many proposals as possible.
- One can't get the grants unless one is willing to work with sponsored programs. Thus, researchers simply have to work with the poor policies and procedures that are in place.
- Get someone who cares about running this office. It is a mess and has changed little over the 14 years I've been involved with them.
- Almost none are provided. Making research a frustrating endeavor which has made many people in my college stop competing for grant monies.
- what services? the training?? the training is so basic undergrad students might benefit. They offer no solid advice for experienced researchers starting in the area of funded grants.
- I'm not sure what you mean by "sponsored programs office." Are you referring to the research corporation, the college or the funding agency?
- The sponsored program office makes it easier to apply, however this does not effect my decision in grant application. It does however make the experience less unpleasant.
- I am going to engage---but they do accounting and return F & A--little help with developing proposals and not enough support in notification of open RFPs

- They are there to make sure you spend correctly and follow the fiscal requirements of the awarding entity
- I am really past the point where I need them and they are not knowledgeable about the grants I am most interested in them, so I regard them as a necessary evil and use them only to the extent the university mandates me to do so.
- no
- The lack of infrastructure in terms of services simply slows me down a bit.
- as in 12 and 16, no relationship between what OSP provides and whether I engage in sponsored research.
- There is nothing I can do about my institution's sponsored programs office but I NEED to get grant support so apply for grants regardless of the institution's sponsored programs office.
- When I received my NSF grant, the office of business affairs (at the time, the equivalent of an SRO) told me I would be responsible for managing my grant. They also asked me why I hadn't asked for any indirect costs. At which point, I just looked at them and decided to mainly apply for grants through my adjunct position at another institution.
- Some aspects of the services are less than optimal. Our purchasing procedures are somewhat cumbersome and require way too many signatures.
- No
- I am not sure we still have such an office!

Survey Question 24

- Very little is returned to the grant's origin. Other colleges and departments across campus, and administration, benefit from the indirect costs.

- I can not see where the Dept or College part goes at all.
- No
- When a PI has a grant proposal rejected, all the work devoted to that proposal counts for nothing! When a PI gets a grant proposal funded, sponsored programs grabs their money, the Dean grabs the college's money, the Chair grabs the Department money. The PI gets NO money unless the Chair and Dean decide to support the PI (which doesn't always happen!!!).
- I will engage in sponsored research activities regardless of how my institution used the recovered F&A.
- I am not sure of the exact percentages, but it is greater than it was in the past.
- The last time I was funded I received a salary supplement. My understanding is that a new policy is being formulated that will end this incentive.
- ?
- This is just plain stupid
- same problem as above
- Have not been PI on a sponsored project yet @ my current institution. Just got here.
- There is no return of F&A to me, I get no support from the College or Division. Being externally funded in my Division is punitive. Processing of paperwork for expenses is archaic, 100% paper based and a ridiculous waste of time. There are no written procedures, when a mistake is made administration threatens disciplinary action. If you complain or ask for help you get assigned extra classes, more advisees, paperwork disappears, and a negative comment is placed in your tenure file. The process is so difficult I will not write another grant until I get a job at another institution.

- I don't have expectations they will be returned to me, and it's up to the university to determine how to distribute them. That's the point of them being indirect costs, they don't come directly to me and are used as the university sees fit.
- A much bigger percentage should be returned to the Department and to the PI.
- If I keep worrying about the amount of F&A to me , then I will never write a proposal after I got tenure. PI do not equate F&A returns to our interest in conducting research. It is a frontal insult.
- I do have a issue with question 21. The return of F&A funds to the college and department have no relation to the amount of time spent on research activity. The F&A return should be proportional to the institutional infrastructure that is used in support of research activities. While I feel that this may be inadequate, I disagree with question 21 as my time is irrelevant.
- One can't obtain funding and do research if one lets the administrative failure determine their own careers.
- Too arbitrary, not clearly delineated across all schools and departments
- Should be returned quarterly instead of biannually
- See #12.
- I would like to know more about all this.
- Again, I am still likely to continue because of the previously stated reason.
- As far as I know, there's nothing that comes back to my college or department. Nothing. Zip. Nada. Yet another great incentive.
- Zero % speaks for itself

- Many other schools that house people in my research community have much higher F&A costs. One of the selling points I give about being at WVU is that the overhead is so low.
- The Institution must return bigger percent of dollars back to PIs to keep their morale up
- no
- no
- Funds returned to my department or to me are mainly because of the good department chair, not because of a decision by the university.
- See comments above. Same reaction -- I just see it as given and I move on.
- It seems like the harder you work to bring in funds the more you are penalized by the system. It is very demotivating.
- College has invested potential future F&A in my project. That was appreciated.
- Return to faculty is so low as to not serve as an incentive at all. But OSP does not have to incent us to find funding--we'll be fired if we don't.
- Don't know
- F&A costs should be used to best promote future research especially by the investigators
- No
- For small grants--not federally funded-- the office will waive their percentage of F & A which they don't have to do so that makes a difference
- Additional F&A costs should be re-invested in PIs who did well in securing external funding.
- Too little returned and considering zero help I get in the College, it becomes insulting.
- the colleges are so broke, as a result after the research corp takes their 50%, and the president takes his 25% and the college gets 25%, they use those monies to fund staff and

other resources that the cut budgets can't afford. therefore hardly any come back to you the researcher to use. having a computer and software is not enough.

- Would like more but understand the current distribution plan.
- There are certain types of research projects that I am unwilling to persue because of a lack of lab technician support.
- Nothing should go to the presidents office but more should go to MURC
- Once items are purchased almost no monies available to maintain them. So I have lots of cutting edge equipment not even usable in classroom situations much less for new projects
- It is often impossible to understand how the F & A funds are used to benefit the college or the department. There seems to be little flexibility in waiving such funds and/or a fair amount of capriciousness.
- I have not seen nor heard of any moneys being returned to my department or any department that I have worked on a grant with.
- We all want the money to come back to the PI, but that is just not going to happen. May due with the portion that does come back to the PI, half full rather than half empty
- I addressed this point in an earlier comment but will restate here. The amount of money that comes back to the department or the PI is very little so it has no value unless you have multiple grants for large amounts of money. Often, the PI has no control over the money that does come bad and it is used to pay department expenses.
- no
- As the PI, I expect certain percentage of F&A cost returns to department and the PI. Currently we have none.

- Although it's nice to get a bonus, at some point, universities and the NIH and other FED agencies need to decide if they want to fund research or vacations. Perhaps, the F&As are too high, given that most researchers already offset their salary, which provides a "bonus" to the university.
- Still, no relationship between what the college/dept/PI gets back and whether I engage in funded sponsored projects
- Even when F&A costs were returned to my department, the department chair provided no explanation about the use of those funds, and none were returned to PIs or to PI missions, e.g., Centers. In fact, transparency at the department level was significantly worse than it was at the University or Health Sciences Center level.
- I engage research activities not because of F&A

Survey Question 28

- Would be nice to know how much F&A is returned and when. I remembered that a small portion of F&A for funded project should be returned to me as overhead, had to go down and ask my chair and he gave me an amount but I don't receive a regular accounting of this overhead account that F&A gets funneled into. It felt like a big secret that no one told me about.
- Thank you for conducting this survey. I hope someone listens when you report your findings. I suspect a number of faculty feel discouraged as I do.
- There is NO clerical support anymore. Administrative, i.e. financial reports are minimal. We do get a great deal of help with ordering and receiving materials.
- No
- No

- Although more difficult to do, we still need to do it.
- Even though our research office is awful and I feel there is inadequate support and return on our federally funded research, I put neutral for the questions on its impact on my decision to engage in sponsored research. Faculty need to get grants and I think that, no matter how bad the sponsored research office is, they will continue to write grant proposals.
- I will engage in sponsored research activities regardless of if or if not my institutions provides me with administrative or clerical support. Which the do not by the way.
- Our OSP at WVU is excellent.....and they try to help us with F&A.
- research funding is a requirement for promotion and/or salary enhancement which is divorced from F & As. so there are other strong incentives to submit grants at my institution.
- Same problem. Also, I have not asked for clerical support for many years.
- Have not been PI on a sponsored project yet @ my current institution. Just got here.
- I have been very successful in getting external funding and have been punished for this at the College and Division levels. I am actively looking for other positions and will leave when I get the right offer.
- There is no clerical or administrative support
- Administrative and clerical support? ROTFLMAO.
- I have the support when I need it, which is all that matters. None of these factors affect whether I would do sponsored research activity; I do that because I enjoy research and research publications are the primary measure for promotion for most faculty.

- ..there is not administrative support or clerical support provided for me directly from F&A costs generated through my overhead. It all goes to the Department. The current chairman is doing an outstanding job in using these funds for supporting staff in our department. On the contrary the previous chairman made a very inappropriate use of all the F&A revenues provided back to the Department ... it all depends on the ethics of the Chair.
- I think I would likely engage in sponsored research activity if I knew more about it.
- The awards we receive have an allocation for administrative and clerical support, however, the university will not allow the funds to be paid to the staff member who supports my projects. She often works outside of her normal work day, but is not compensated. This is extremely frustrating and unfair, considering that the granting agency allows for it in the budget.
- What clerical support?
- Inefficient at best, incompetent most of the time.
- No
- If my decision to do research was based on support from the institution, I would not be doing research.
- I imagine that you are on to something interesting here, but your survey items assume a certain level of knowledge on the part of the researchers regarding how their F&A funds are used. Also, please understand that the motivation for pursuing externally funded research is so strong -- and the competition so stiff -- that F&A rates are probably a secondary or tertiary concern for most faculty members. They just ARE, but it does not detract from the huge benefits of actually receiving a sponsored grant. I am a social

scientist and you may see variance across disciplines. I would strongly recommend some additional survey items that get at discipline, and probably also the type of external funding pursued.

- I have had several grants and have not been provided with any administrative or clerical support that actually helped me. They do tend to require a lot of extra work for me by asking me to do stuff that I would not have to do if they were not in place.
- After an initial period of providing matching support, the institution and consistently reneged on its matching commitments
- The level of clerical support for my research is inadequate. Part of the problem is insufficient staff, but most of the problem is incompetent staff who take a somewhat adversarial position to the people they're supposed to be supporting (i.e., the faculty).
- Questions 23 and 27 - both the percentage of F&A returned to my department and myself and my perception of administrative and clerical support are negative, but these are not the factors that cause me to seek or not to seek outside research support.
- it's a tough call in this financial climate. Take from Peter to give to Paul just might be a better move to keep afloat in the short term. Long term, not so sure.
- Accounting and purchasing practices are a mess. Travel reimbursement is indefensibly slow. Department level accounting staff are badly overworked and underpaid. Administrators are more obstructions than advocates.
- The office of sponsored programs (IRB included) create barriers to doing research in general. They over regulate research because they are over-regulated by the federal government.
- Additional help in grant submission and reporting is required.

- No
- support could be greater but so far has proved to be adequate
- I have received more help from our Foundation staff than the College's admin unit and the latter is supposed to have a AD for Research. Alas, we do not.
- the clerical staff sticks to their job description. they do not add on additional work just because you received a grant.
- Again, pursuing grants is expected of all faculty with a research appointment. I will continue to seek such funding regardless of how F&A costs are used.
- If the provision of support staff was the primary criteria, our university would be in trouble.
- Again, we need to incentivize the PIs and departments by returning a significant portion of indirect cost.
- The administrative and clerical "support" makes it more difficult to submit proposals. Regardless, I still have to submit as many proposals as possible.
- I have to add significant amounts of work to folks who are underpaid for their current high workloads. In COS where many do work our support staff does what others do plus large research loads for free. We lose trained effective staff to less strenuous positions of equal pay but less duties
- The support for funded activities comes from the grant itself. I have seen no help from these people and frankly, wish they would stay out of my way. they make it much more difficult to work.
- Bean counters are a pain but keep us from making bad fiscal errors

- These costs are NOT used to provide such support except in the most minimal ways. I have always had to include a line in each grant that pays for specific support personnel, either through buyouts of university staff or hiring of additional new staff, to complete project activities.
- no
- See above comment-- Fed dollars for fundign research should be used as closely as intended by the sponsoring agency. Anything less is dishonest.
- As in other comment boxes
- I am pleased with support from OSP but my institution provides little support for the type of research that we conduct, i.e., public health/population research.
- There is nothing I can do about my institution's support but I NEED to get grant suport so aply for grants regardless of the institution's support.
- Research activites part of my profession
- Neutral in my opinions above and below because my university just enacted a new indirect cost policy. My perception was previously negative regarding my institutions policy (there was little accountability and basically nothing returned to the PI's departments), but if the new one is implemented as enacted, things will be much improved.
- I have not engaged in funded activities for several years after being involved in several. At the time, the institution kept a fixed percentage of the money and used it for general operational expenses. I thought it was morally wrong to write a grant proposal for a worthwhile project and then have the institution take some of the money for things that were not related to the projects.

APPENDIX G

Qualitative Comments from non-PI Group

Survey Question 12

- It would be helpful to have more clear communications on how they are used.
- Any involvement with MURC is a deterrent to the pursuit of grant-supported activities of any kind.
- Regarding question 11, the F&A cost usage cannot affect the likeliness to engage as it is required for my position. However, it does make it more difficult to work with clinical faculty because engaging in research is often perceived as a burden to the department which does not see the F&A funds.
- The use of F&A costs does not impact whether or not I engage in sponsored research activity. I am very likely to engage in research, but F&A is not the cause of that likelihood.
- No
- I work in a college where non-sponsored research is the norm and sponsored research is very, very rare (business and social sciences).
- pursuit of sponsored projects is part of my job - regardless of how the institution uses the f&a.
- I believe overhead costs are too high. I understand the need to recover costs to the institution to carry out and administer the projects, but I believe the costs may be prohibitive for sponsors. Research incentive dollars, where PIs get a percentage of research-generated monies to use at their discretion for other teaching/research supplies external to the grant may be another, albeit lesser, incentive for sponsored research projects.
- No

- no
- no
- I need to explain my answer to #11. I am more likely to apply for funding from foundations where no or little F&A is awarded because I have greater control of the money. If my institution had a better infrastructure to support social science research, I would not have a problem with F&A. But as I have to do ALL of the work associated with securing a grant and conducting the research, I will do whatever I can to minimize the amount of my grant that goes to the institution.
- It would be better if the use of the funds was more transparent, and if the need for such a high percentage to be taken were clearer.
- I do the research because I love research. Honestly, I understand the choices that were made about the management of F & A Costs but I can also understand why some faculty have been upset by the methods behind the madness. As a PI, I do hope that the F&A income that I generate through my hard work could, at some point, help to grow my school directly but I also see the point of building a foundation of research campus-wide.
- Questions 9 and 11 do not allow me to provide the most accurate answers. My most accurate answers are: 9. In principle I understand the need for institutional recovered F&A costs. However, a "one policy/percentage" fits all is not as fair to smaller grant recipients as larger ones. While this may initially seem counter-intuitive, Half of \$10k leaves almost nothing to work with to accomplish anything meaningful while half of a million or more \$ still leaves a lot of potential. Some disciplines are limited to more modest grant opportunities, and the result is: 11. that I, having less opportunities in my discipline for large grants, am also disinclined to apply for the smaller grants because

they just aren't worth the application investment for what is possible by the F&A is subtracted.

- A "not applicable" response should be available on some of these questions.
- As research dollars have increased in my institution so has the number of administrative positions. These positions do not provide any value added to a researcher. All they do is add bureaucratic burdens to investigators. Over my 15 years, I have been forced to do more administrative work and less creative work. While I certainly appreciate state and federal regulations, there is a point where the creative environment of an academic intuition erodes and a business environment becomes more attractive. I advocate that researchers should have direct input in the evaluation of administrators like chairs, deans, and VP or research. If these people are handling the money I received, then I should have some say in their performance. As it is now, there is little feedback on a yearly basis of these personnel's performance from researchers. There needs to be a two-way street in the fiscal responsibility of the monies obtained through researcher's intellectual property.
- We give nothing back to the investigator, it all goes centrally. This is demoralizing for PI's, and for department chairs (of which I am the latter).
- I teach in the Division of Art. We rarely if ever deal with sponsored research of any kind. This survey in no way applies to my research activities.
- Their piece of the pie is excessive and cumbersome to negotiate.
- My perceptions of their use of F&A costs (question 11) don't affect my decision to engage in sponsored research activity, because doing so is required for me to keep my

job. Therefore, even if my perception of these uses is poor, I'm still in a position where I have to engage in sponsored projects.

- It does affect how much I am willing to do if high administrative costs are taken out for managing my grants which should not be that much.
- My institution's office of sponsored research thinks I work for them. They make an unpleasant task (writing a federal grant application) even more unpleasant. Thus, I don't seek federal grants anymore.
- This data will be skewed towards the sciences.
- I realize times are tough economically, but the prior F&A rate gave us a bit of a competitive edge. When the economy turns around, I recommend reducing the F&A rate a few percentage points.
- The F&A costs are not reverted back to the department that was awarded the grant.
- I see no benefit to my generation of F&A funds. It does not hinder my willingness to do research but I feel that I get a lot of \$ pulled out of my studies
- I do not know anything at all about this issue. You might consider not to use my response.
- None.
- I have no knowledge regarding costs of F&A.
- PIs need to know where the F&A are going. A pool of money should be made available for researchers to draw from to pay to publish in open access journals and/or for page costs for other journals.
- In this world of tight budgets, I believe the collection of F&A funds has skewed the mindset of university administrators to over-emphasize research as a professional

requirement; at the expense of teaching. Research is extremely important, but teaching should always be the highest priority in a university setting. Because teaching is viewed as an expense rather than income, excellent teachers are not properly rewarded in faculty evaluation schemes.

- While I have participated in research only 2 years have I ever been PI
- Projects and less likely to be funded due to such enormously high overhead and f&a costs.
- The problem is not the overall distribution percentages but the fact that the distribution is not equitable to the campus that I work at. The main campus gets the funds while the branch campus, where the projects are being done, does not get the full benefit of the F&A costs. Then the branch campus wants to charge departments for items that should be covered from the F&A costs it is not receiving (because the main campus gets all of the money).
- F&A funds should be available to improve research equipment, facilities and staff at the location the research is being done. This provides an incentive to do even more research
- There is a general lack of clarity when it comes to F&A and what the university uses those funds for. However the services offered to faculty within my university in terms of grant budget support and grant writing assistance are invaluable.
- no
- I've only been a co-investigator to this point, meaning I haven't had significant experience dealing with F&A costs and grant administration. Sorry.
- The clinical scientists at this institution receive no support from anyone. It is done entirely in spite of the current system rather than enabled by it. Unless it can be shown

that the fees somehow benefit those doing the work, we should just donate it to the United Way instead of perpetuating continue expansion of "Big Government".

- None
- Since I have no idea what "sponsored projects" are, I really can't say. In the Humanities, just about everyone works individually.
- Music education philosophical research seems most unlikely to receive federal funds, so I have no need to look into it.
- As a scientist, I cannot not conduct research, thus, though I may not like the usage of monies by the University, I cannot use that as a excuse to not continue doing science
- no
- I have no idea of what F&A costs are or of what the recovered funds are.
- the research is directed to improving some aspect of a health related service to the population.
- My institution's F&A costs are low compared to the costs at other institutions, but the support they provide makes it prohibitive to engage in sponsored programs research (e.g., now non-existent tuition waivers for graduate students, administrative support on grants). I am the co-investigator on a grant that has been processed through another investigator's institution and that is a much smoother and more supportive process.
- I have not applied for any grants because I've heard too many negative comments about how hard it is to get funds dispersed, and how maddening the hoop-jumping is.
- None

- I have an opportunity to have a funding entity underwrite a student's tuition so that person will work as a research assistant. I am hesitant since my understanding is that the grantor would have to pay an additional 40% just for F&A costs.
- recovered F&A costs are one of several disincentives to conducting sponsored research
- The previous question (number 11) is difficult to answer. The institutions's overall use of recovered F&A has very little influence over my decision to engage in research activity. I therefore answered that I am very likely to engage in research but not for those reasons given in the question.
- It is like a big black hole - money goes in but nothing ever comes out for the researcher.
- While I will continue to seek outside support, I am APPALLED by the university's take. And I view it as "take," for without the outside funds, the research could not be conducted. Too, the types of research in which I am engaged do not need university facilities (beyond a computer). I would advise, instead, using the 20% take as a fund from which to draw for incurred expenses. Right now, the percentage is, in my case at least, THEFT.
- No
- N/A
- They are used to help the researcher and promote the unit.
- Basic (i.e. laboratory) scientists need grants to fund their research. yet social scientists do not, and so I view the policies for funding as disincentivizing.
- There are not very many places that are going to manage your research money properly without F&A costs!
- It seems appropriate for the institution to recover some costs.

- You need "not applicable" as a choice and a way to eliminate answering questions once the person is not the object of your survey.
- No
- no
- unknown to me
- This is a scam.
- My own research does not involve situations in which these types of costs would arise
- I must admit I'm not even aware of "recovered F&A costs" (i.e., what they are, where they come from, and how much our university has). I'm somewhat "in the dark" on this.
- It's unclear how these funds are used by the university.
- Professional development funding is very limited which doesn't inspire as much research
- no
- none

Survey Question 16

- Again, not causal so #15 is frustrating.
- See comment on 12.
- No
- have not been informed of the justification of recovered f&a, though it would not affect my pursuit of external funds.
- I believe it needs to be better communicated to both sponsors and faculty as to why the costs are so high. Otherwise, a negative perception persists and festers among both sponsors and researchers.
- No

- no
- I have never received a justification other than, "we have to keep the lights on." And I cannot find a justification on the institution's website.
- I am going to participate in sponsored research no matter what, because my job depends on it. That does not mean I agree with the policies.
- I teach in the Division of Art. We rarely if ever deal with sponsored research of any kind. This survey in no way applies to my research activities.
- No
- no.
- None.
- A % should go back to both the PI's department and the PI for his/her research.
- See above.
- None
- Didn't you already ask this question?
- See above comment
- I know nothing about this issue. What are these recovered funds?
- Make it easier and simpler. Distribute funds equitably and quickly. Take a smaller percentage. Offer MURC training on-line on an as-needed basis.
- None
- they will spin it to justify MURC's existence I do the work, everyone else gets their cut
- It needs to be made much more clearly; I had to CHASE down an explanation of why and how.
- No.

- N/A
- No
- no
- no
- My own research does not involve situations in which these types of costs would arise
- no
- None

Survey Question 20

- It would be very helpful to have a grant preparation specialist in our college who can be a first point of contact and help serve as a liason with OSP. Someone who can help me prepare my budget and make sure I have all of OSP's forms filled out and turned in before their internal deadline.
- No
- While the staff is helpful when they have the resources. There is steep learning curve for faculty members seeking to submit external funding requests.
- No
- no
- Again, I have to do sponsored research to keep my job. I love doing research that is why I followed this particular career path. However, my experiences with the sponsored programs office have been very negative--for example, the green sheet for a grant extension was not issued until the extension was over, is just one example.
- I teach in the Division of Art. We rarely if ever deal with sponsored research of any kind. This survey in no way applies to my research activities.

- I may be too new to the University to offer insight.
- No.
- Some people are very good at checking proposals (for example, Patty has done a great job for me), but others aren't so good. When I don't get any comments about my proposal, I find it hard to believe I haven't made a single mistake. Also, I've found out about mistakes, that killed my proposals chance of getting funded. Also, I think more can get done to connect faculty with program officers. I realize that you drive people up sometimes, and that's good. But how do I make the right connections with the DOD. You really have to know people to get that funding. I really want to learn how to do that and it's just not clear right now.
- no.
- None.
- I have been awarded one grant, and it was almost impossible to contact any member of the Office of Sponsored Programs. This office did not even provide e-mail contacts on their university website.
- There is no structure or organizational chart. Who do I contact for certain questions regarding budget or application issues? One central phone number rather than direct lines and emails. Lousy website. I found NIH information on Duke and Texas-San Antonio and our OSP office had no clue. Need step-by-step instructions for paperwork and grant applications like other universities provide.
- They do the best that they can with what they have. Dedicated time to any particular project seems to be an issue however.

- They are always helpful and have gone above and beyond to help me with grant submissions and to deal with state and federal grant agency issues beyond my control that cause them to have to do a lot of extra work. They have also gone above and beyond to help me correct errors that I did not catch.
- No experience in this regard.
- Services? Services? Playoffs?
- None
- What services? The library has been funded on soft money for years and cannot really support my research except through slow, flakey inter-library loan.
- I do not know anything about this program, how it is run, who gets money, or anything else. It would be nice to see more transparency.
- None
- No.
- N/A
- Our institution does not provide adequate information about ANY of our development funding streams.
- no
- none
- If my university has a sponsored programs office, I have never had any dealings with it
- I'm new to the campus and haven't sought funding/sponsorship--I will in the coming months
- none

Survey Question 24

- No
- Our department does not show how it uses the F&A costs. It would be helpful to have more information about how the funds are used.
- I appreciate my college's willingness to share the return with me as a researcher. It provides funds for teaching and research materials that otherwise would likely come out of my own pocket or would remain unpurchased.
- No
- no
- There is no firm policy on the use of F&A costs to support any research efforts that I value. Even if I received no immediate or direct benefit, I would support the general research support infrastructure in the department and/or the use of funds for internal grants to support people whose research is unlikely to generate external funds.
- I have to do this--my perceptions have little to do with what I must do.
- Again, I do the research because I love doing research. This is not the case with all faculty. While I would like more money to come back to my school or my department, the current management policies are not going to inhibit my desire to do research. That being said, they may not be motivating, either, to faculty who are not supermotivated to engage in research.
- I teach in the Division of Art. We rarely if ever deal with sponsored research of any kind. This survey in no way applies to my research activities.
- Should be higher for the PI. There are so many costs that research requires that I can't put into a grant without reviewers saying my budget is unreasonable. Travel is expensive, but it's a valuable experience for the students. I realize there is student travel support, but that

doesn't cover all of the cost. Also, publications cost money, but I have to publish. I can put some of that cost into the proposal, but not all of it. As a young faculty member, I just don't have personal money that I can use to supplement myself. (Most of it goes to my kids' daycare.) Every summer I struggle with how I'm going to make ends meet. Teaching during the summer takes so much time away from the research I have to do in order to get tenure.

- no.
- None.
- If a grant I want to apply for does not provide full overhead, then it does not really matter to me personally because I won't be seeing much if any return anyway.
- There are F&A costs then there are the salary dollars that get returned to the college/department/faculty. This survey is confusing as to whether it is including these salary lines in the grant or just strictly F&A costs. My answers to 22 and 23 assume the former.
- We see nothing. The department does not even know that it should be receiving support.
- None
- no
- I am limited to 2/9 of my already-law income for any summer funding. Moreover, as noted earlier, my institution does not support graduate student tuition waivers and the stipends for students here are such a joke that collaborating with other institutions that also have graduate students (but pays them more like a living wage) makes it hard to draw up a reasonable budget that makes sense.
- None

- Never see any return to the academic unit
- This happens?
- No
- N/A
- What are these funds?
- no
- none
- As stated above, I do not believe such costs are involved in my research
- Perhaps I should not have participated in this survey because I have not yet had funded research at this institution
- none

Survey Question 28

- Would be helpful to have more transparency here.
- Certainly I appreciate a good staff, and feel we have one.
- I do research to get my job done, and sponsored programs are a vital part of that. F&A costs are not a consideration of whether or not I choose to apply for a particular funding opportunity.
- No
- Administrative help is critical to administering the grant. F&A costs should go towards hiring additional administrative resources or tools to help administrators, i.e. more efficient copy machines.

- It would be nice to have internal staff to administer these funds within the academic units themselves. We are a small college, so our existing staff and faculty bear the primary brunt of administration.
- No
- The fact that I have so little explicit information about the use of funds frustrates me and makes me disinterested in the process.
- It is important to realize that you are pitting perceptions against job requirements. Whether I have a negative perception or not, I still have to participate in this type of research. This made it hard for me to decide how to answer your questions.
- I can see that the lack of administrative post-award support and clerical support could be a demotivator for faculty who are already very busy. It has been a frustration for me to have to manage things post-award at my school. we do need more help to really build research.
- I am not a P.I. and do no sponsored research.
- This is really not applicable to my area of research, however, it is to other faculty I know well.
- I teach in the Division of Art. We rarely if ever deal with sponsored research of any kind. This survey in no way applies to my research activities.
- clerical staff give the impressoin that it is not their job to support those doing research
- I still need to get the grant money regardless of how the F&A money is spent!
- It should be as minimal as possible, fair and equitable, justified, and the services should be there for the researcher as promised. Giving back to the department does help, but still

minimal and justified. And less hoops to have to jump through in justifying expenses.

Researchers are busy...

- no.
- None.
- Our department grants person is ineffective, incompetent, lazy and we avoid her as much as possible. We get our grants in ahead of time to avoid rushing around to meet deadlines for us as well as the approvers (dept., college, OSP) but we are told that she is "busy" with an earlier deadline and we will have to "wait". This is unacceptable. Either hire someone who can get the job done and handle multiple applications or hire additional staff to get the job done.
- No experience with this.
- It simply referred to as a tax. We no longer even expect to see anything such as support.
- None
- I would like to have funds to do research. I never heard of this issue before.
- None
- it's all electronic, what administrative and clerical support do they actually provide?
Sending links to RFPs I already know about? Extra paperwork so they get their cuts? it's ridiculous and totally a disincentive
- Really?
- No
- N/A
- no
- no

- no
- I am a faculty member in the early stages of my career. I have not engaged in any funded research as a faculty member nor do I know or understand what my university's policies are towards recovery of F&A costs. My university is teaching-oriented and does not supply time or resources to devote to research or searching for research funding.
- My university is very helpful in providing clerical support for my research, but I am not aware that any of it is paid with recovered F&A costs
- none