

Johns Hopkins University

**INVESTIGATION OF ALTERNATIVES TO EFFORT REPORTING
FOR THE UNIVERSITY OF WISCONSIN-MILWAUKEE**

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Abstract

Effort reporting is consistently ranked as one of the most frustrating and burdensome administrative tasks related to grants management, often resulting in inaccurate effort reports and low certification rates at many universities nationwide. Furthermore, the cost of administering an effective program is significant when considering the volume of reports and the number of people involved in the process. These instances are particularly true at the University of Wisconsin-Milwaukee (UWM), in which effort reports are often certified late and certification rates are less than 100%. Concerned with the quality and timeliness of its certified effort reports, UWM has questioned whether the cost of effort reporting outweighs the benefits.

The emphasis on internal controls in the Federal Office of Management and Budget's regulations under 2 CFR 200 Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (Uniform Guidance) has produced a spectrum of alternatives to effort reporting, including payroll certification and systems that rely solely on internal controls. Because the Uniform Guidance regulations offer universities flexibility in developing their own methodology for documenting compensation charged to federal grants, this research project explores cost-effective alternatives to effort reporting for UWM that would improve its compliance with federal regulations and reduce administrative burden.

The strengths and weaknesses of UWM's current effort reporting system were evaluated using the *Internal Control—Integrated Framework* established by the Committee of Sponsoring Organizations of the Treadway Commission, which is the standard to be used by universities when designing a system of internal control. This evaluation included interviews with UWM Principal Investigators, discussion with research administrators at peer universities, examination of the current regulatory environment, and review of alternative methodologies used by other

universities as potential options for UWM. The findings show that two strategies could help UWM improve compliance in documenting salaries and wages charged to federal grants: (1) strengthening internal controls to improve the timeliness and quality of certifications with the goal of achieving a 100% certification rate by the end of the 90-day certification window, and (2) conducting a feasibility study to determine the viability of transitioning to a project-based payroll certification system as a way to optimize the cost of compliance. Both options could offer UWM greater efficiency, accuracy, and higher certification rates.

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Abbreviations

CFR	<i>Code of Federal Regulations</i>
Circular A-21	<i>OMB Cost Principles for Educational Institutions</i>
COGR	<i>Council on Governmental Relations</i>
COSO	<i>Committee of Sponsoring Organizations of the Treadway Commission</i>
DHHS	<i>Department of Health and Human Services</i>
ECRT	<i>Effort Certification & Reporting Technology</i>
FDP	<i>Federal Demonstration Partnership</i>
IBS	<i>Institutional base salary</i>
NCURA	<i>National Council of University Research Administrators</i>
NIH	<i>National Institutes of Health</i>
NSF	<i>National Science Foundation</i>
OIG	<i>Office of Inspector General</i>
OMB	<i>Office of Management and Budget</i>
OSP	<i>Office of Sponsored Programs</i>
PCS	<i>FDP Payroll Certification System</i>
PD	<i>Project Director</i>
PI	<i>Principle Investigator</i>
UG	<i>Uniform Guidance</i>

Glossary

Audit finding. Deficiencies which an auditor is required to report.

Committed effort. Amount of effort proposed and accepted by a sponsor.

COSO Internal Control—Integrated Framework. Guidance for designing, implementing and conducting internal control.

Cost sharing. Commitment of university resources to cover the difference between total project cost and the amount covered by the sponsor.

Cost transfer. Expense transferred from one account to another when an error has occurred in the amount initially charged to the account.

Effort. Proportion of time spent on an activity, expressed as a percentage of total institutional activities for which the person is compensated by the university.

Effort reporting. UWM's method of confirming that committed effort on a sponsored project has been performed.

Effort statement. Statement in ECRT that lists the employee's salary and effort distribution for an effort reporting period.

Internal control. A process designed to provide reasonable assurance regarding the achievement of objectives in the areas of effective operations, reliable reporting, and compliance with laws and regulations.

Standards for Internal Control in the Federal Government (Green Book). Sets the standards for an effective internal control system for federal agencies.

Uniform Guidance. Refers to Office of Management and Budget 2 *CFR* 200 *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*.

Chapter 1.

Introduction

1.1 Background

Effort reporting has been a challenge for virtually every institution of higher education in the United States that receives federal grants, contracts, and cooperative agreements in support of instruction, research, and public service. The federal government first introduced the requirement for reporting the amount of effort spent working on a grant project in the 1967 revisions to *Circular A-21 Cost Principles for Educational Institutions* (Circular A-21), which governed federal assistance awards until the Uniform Guidance which was implemented in 2014.¹

In 1967, effort reporting was a new administrative requirement that created some friction between universities and the government because universities were forced to report detailed information about faculty effort. Tensions between universities and the government escalated in 1979 when revisions to Circular A-21 required universities to account for 100% of the activity for which an employee was compensated if any portion of the employee salary was charged to a federal grant.² The regulations required effort reports to show the precise distribution of payroll and effort by activity expressed as ratios to the total, and the reports had to be signed by a person with first-hand knowledge

¹ Ad Hoc Committee on Government-University Relationships in Support of Science; Committee on Science, Engineering, and Public Policy; National Academy of Sciences; National Academy of Engineering; Institute of Medicine, *Strengthening the Government-University Partnership in Science* (Washington, DC: National Academy Press, 1983), 226.

² *Ibid.*, 225.

of the work performed.³ As a result, universities were faced with implementing a new system to comply with effort reporting requirements, and Principal Investigators (PIs) and Project Directors (PDs) were required to add a new administrative task in managing their federal awards. Although additional revisions were made to the effort reporting requirements in Circular A-21 in 1982, the original concept did not change.⁴

The purpose of effort reporting is to secure after-the-fact confirmation that the salaries and wages charged to a federal grant were reasonable in relation to the work performed, considering a person's total activities.⁵ Effort reports are generated and must be certified for each person who is paid from a grant. However, the concept of reporting and certifying "effort" is puzzling to PIs and PDs in an academic setting, because a clear distinction between teaching, service, research, and administrative activities does not exist, and many PIs and PDs don't know how to report all of their time properly or accurately. Additionally, requiring PIs, PDs, postdoctoral researchers, and academic staff to certify effort on the same biannual schedule seems arbitrary to PIs and PDs, because the period covered by each report bears no relation to individual project budget cycles. As a result, many PIs and PDs find it frustrating and difficult to fulfill this compliance requirement.

³ Ad Hoc Committee on Government-University Relationships in Support of Science; Committee on Science, Engineering, and Public Policy; National Academy of Sciences; National Academy of Engineering; Institute of Medicine, *Strengthening the Government-University Partnership in Science* (Washington, DC: National Academy Press, 1983), 225.

⁴ *Ibid.*, 232.

⁵ Office of Management and Budget, *2 CFR 200 Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*, 200.430, (Washington, DC: National Council of University Research Administrators, 2015), 71-74.

Furthermore, the growth in regulatory requirements for federal grants in recent years has created a situation in which PIs and PDs spend approximately 42% of their research time on grant-related administrative tasks, with effort reporting identified as one of the most burdensome responsibilities.⁶ Issues identified by PIs and PDs in the Federal Demonstration Partnership (FDP) Faculty Workload Survey included difficulties with accounting for some of their time (e.g., brainstorming, reading, and time worked over 40 hours), unclear requirements, and reporting time as percentages.⁷ The overall feeling among PIs and PDs is that the number of rules and compliance requirements is increasing without considering their benefit, resulting in wasted time and money.⁸

Recent developments in the research enterprise at the national level have raised awareness of the administrative burden for universities related to federally funded research, and the federal government has given institutions more flexibility in implementing processes to comply with regulatory requirements. The U.S. Congress and the Executive Branch of the federal government have talked with research universities and university associations, ground-breaking reports have been written, laws passed, and regulations implemented with the intention of reducing obstacles that impede the health of the university-government research partnership. Effort reporting is often highlighted as a prime example of a government regulation that causes undue burden on PIs and universities in the management of federal grants.

⁶ Federal Demonstration Partnership (FDP), *2012 Faculty Workload Survey Research Report* (April 2014), 6, accessed March 16, 2018, https://sites.nationalacademies.org/cs/groups/pgasite/documents/webpage/pga_087667.pdf.

⁷ *Ibid.*, 52.

⁸ *Ibid.*, 88-89.

A prominent event in the national dialog related to the administrative burden for federally funded grants was the Office of Management and Budget's (OMB's) reform of the regulations governing federal grant awards: *2 CFR Part 200 - Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance), which went into effect on December 26, 2014. These new regulations emphasize internal controls and eliminates prescriptive requirements for effort reporting, thereby giving universities flexibility in the methodology used to comply with regulatory requirements for compensation charged to federal grants.⁹

The University of Wisconsin-Milwaukee (UWM) faces the same challenges as other universities when it comes to effort reporting. It is a complex topic. To the author of this paper, upon taking her new position as the Associate Director for Pre-Award Administration in the Office of Sponsored Programs (OSP) at UWM, in September 2017, it quickly became apparent that effort reporting was an area of concern. Historically, UWM has had challenges with documenting salaries and wages charged to federal grants, as evidenced by low certification rates and staffing turnover in this area of responsibility.

Under the auspices of the Office of Research, one of the author's predecessors at UWM who served as the Compliance Manager in OSP, invested a substantial amount of time trying to improve compliance with institutional policy and regulatory requirements related to effort reporting. His efforts led to a significant increase in both timely certifications and overall certification rates, but his departure from UWM in December 2016 led to a twelve-month period in which effort reporting responsibilities were shifted

⁹ "Alternatives to Effort Certification/Reporting," Arizona State University, last modified March 19, 2018, accessed March 26, 2018, <https://researchadmin.asu.edu/cohort/effort>.

between two Grant Accountants in OSP who were already responsible for the accounting functions of a large portfolio of active grants. The first Grant Accountant left the university a few months after taking on this responsibility. The second Grant Accountant had very little knowledge of effort reporting and received only three days of training with the first Grant Accountant prior to adding this duty to his existing accounting responsibilities. This series of events stalled the progress that had been made toward increasing certification rates and led to a downward trend in the percentage of effort reports certified. For example, 98% of the effort reports were certified for the reporting period ended June 30, 2016 but only 93.1% of the reports have been certified for the period ended June 30, 2017. Late in 2017, the Grant Accountant was promoted to Effort Compliance and Subaward Specialist, and now directly reports to the author. He is expected to spend approximately 50% of his time on effort reporting responsibilities.

The staffing situation at UWM, previous experience with effort reporting, and knowledge of regulatory changes which opened the door to alternatives to effort reporting, led to this project. This paper will look at opportunities to improve effort reporting at UWM, as well as alternative methodologies, and provide a strategy for UWM to improve compliance with the regulatory requirements for documenting salaries and wages charged to federal grants, in a resource-challenged environment.

1.1.1 Current Environment at the University of Wisconsin-Milwaukee

UWM has faced severe budget deficits since 2010, when changing demographics caused the loss of millions of dollars in tuition revenue, and in 2015 when the state legislature drastically cut funding. In 2016, UWM's Chancellor introduced a plan to "cut as much as \$41.25 million from its budget over the next three years".¹⁰ UWM's dual mission of being a research university and an access school for students less prepared for college, often leads to competing priorities for limited resources.¹¹ Thus, every vacant position is closely scrutinized and justification for filling it must be received before approval is given to proceed with the hiring process. This can take months. Therefore, it has been difficult for OSP to maintain the staffing levels required to properly serve PIs and administer compliance programs such as effort reporting. Positions had to be restructured and responsibilities shifted. Given the budget challenges and concerns about the quality and timeliness of effort certifications, there may be an alternative methodology that would allow UWM to strengthen compliance and gain administrative efficiencies.

1.1.2 Project Scope

The scope of this project encompasses federal grants, cooperative agreements, and contracts across research, education, and public service. Although this paper focuses on research, the analysis applies to all federal grants. Furthermore, the terms researchers and

¹⁰ Allison Dikanovic, "UWM chief lays out budget cuts but key details to come," *Milwaukee Journal Sentinel*, March 20, 2016, <https://www.jsonline.com/story/news/education/2016/03/21/uwm-chief-lays-out-budget-cuts-but-key-details-to-come/84899460/>.

¹¹ Ibid.

PIs will be used interchangeably. The research for this project is based on historical data at UWM as well as interviews with OSP staff and management, department administrators, and PIs on federal grants awarded to UWM.

1.2 Statement of the Problem

Effort reporting has not been a consistently strong focus at UWM. Historically, timely certification rates have been low and overall certification rates are less than 100% (Chart 1). Furthermore, there have been few consequences for PIs who do not certify their effort. OSP will not set up new grants or process no-cost extensions for existing grants until effort reporting is completed, but there are no other penalties for not complying with institutional policy.¹² In contrast to UWM, the University of Wisconsin-Madison (UW-Madison) has penalties for researchers or academic staff who fail to certify effort and complete the training. Penalties include disciplinary action, up to and including dismissal.¹³

Additionally, policies, guidelines, and training require review and updating on a regular basis. UWM's *Guidelines for Effort Reporting: Proposing, Managing, and Certifying Effort Associated with Sponsored Projects* (Effort Guidelines) posted on the Office of Research website are marked as "draft" and have not been updated since 2007. Likewise, the CITI training that UWM requires PIs and others to complete has not been

¹² "Guidelines for Effort Reporting: Proposing, Managing, and Certifying Effort Associated with Sponsored Projects," University of Wisconsin-Milwaukee, Office of Research, Research Compliance, accessed March 26, 2018, <http://uwm.edu/officeofresearch/wp-content/uploads/sites/91/2015/02/uwm-effort-reporting-guidelines.pdf>.

¹³ "Consequences for Failing to Complete Training and Certify Effort," University of Wisconsin-Madison, Research and Sponsored Programs, last modified February 15, 2018, accessed March 26, 2018, <https://www.rsp.wisc.edu/effort/effortConsequences.cfm>.

updated since 2007. Although, UWM has not suffered any audit findings related to effort reporting, the university is vulnerable because salaries and wages typically constitute more than half of the expenses charged to grants.

Chart 1. Effort certification.

Year	Uncertified Effort Reports	Certified Effort Reports	Total Effort Reports	% Effort Reports Certified
2007	67	1,375	1,442	95.4
2008	139	1,454	1,593	91.3
2009	118	1,592	1,710	93.1
2010	162	1,806	1,968	91.8
2011	127	2,173	2,300	94.5
2012	179	1,938	2,117	91.5
2013	107	1,905	2,012	94.7
2014	91	1,878	1,969	95.4
2015	36	1,772	1808	98.0
2016	43	1,682	1,725	97.5

Historically, responsibility for effort reporting has been housed in OSP, however, UWM has never had a full-time position dedicated to effort reporting. These duties have always been a portion of one person’s full-time responsibilities, making it challenging to devote the time necessary to build a strong compliance program.

The cost of administering effort reporting at UWM is significant when considering that more than 1,600 effort reports are generated each year and, at a minimum, each report is reviewed by the researcher and Effort Coordinator (Chart 1). The OSP staff member assigned to effort reporting reviews reports when PIs and Effort Coordinators need assistance, when changes in the payroll distribution are required, or when other issues arise. Moreover, the staffing required to manage the process and the cost to maintain the electronic system are real costs of this compliance requirement.

Along with other universities, UWM has questioned whether the cost of effort reporting outweighs the benefits achieved, in part because of concerns over the quality

and timeliness of certified effort reports. These potential issues with compliance increase the risk of audit findings in annual audits of federal awards performed by state auditors, internal audits conducted by UW System auditors, and sponsor-specific audits led by the agency's Office of Inspector General (OIG).

In 2016, for the first time UWM received the R1: Doctoral Universities - Highest research activity (R1) classification by the Carnegie Classification of Institutions of Higher Education. Only 115 universities in the country received the R1 designation in this classification update.¹⁴ UWM joins UW-Madison as the only two universities in Wisconsin to achieve this classification. Because the Carnegie classifications are used to “reflect important qualitative differences for research and policy-making purposes,” there is some concern within OSP management that the R1 classification may bring increased scrutiny on compliance with regulatory requirements by auditors and sponsors.¹⁵ Given the changes in regulations, UWM believes the time is right to explore alternatives to effort reporting.

1.3 Research Question

The research question for this Capstone Project looked at cost-effective alternatives to the current effort reporting process. The question asked: given the flexibility offered by the Uniform Guidance, is there a cost-effective alternative to effort reporting at UWM that would improve compliance with federal regulations as well as

¹⁴ “2015 Carnegie Classification of more than 4,660 universities and colleges released,” University of Indiana Bloomington, IU Bloomington Newsroom, last modified February 2, 2016, accessed March 26, 2018, <http://archive.news.indiana.edu/releases/iu/2016/02/carnegie-classification-institutions-of-higher-education.shtml>.

¹⁵ Ibid.

reduce the administrative burden imposed on researchers and staff involved in the process?

1.4 Research Objectives

This project examined and applied the emerging trends in effort reporting to UWM. Identifying the strengths and weaknesses of UWM's current effort reporting system provided a benchmark against which alternative methodologies were compared in order for the author to make informed recommendations for change. Understanding the current regulatory environment, the availability of resources and the culture of the university was essential in identifying an alternative methodology for effort reporting that could reduce administrative burden and improve compliance at UWM. Keeping these trends in mind the author developed the following objectives for this project:

- Identify the strengths and weaknesses of UWM's current effort reporting system.
- Examine UWM's system of internal control for compensation charged to federal grants against the *Committee of Sponsoring Organizations of the Treadway Commission (COSO) – Integrated Framework* (COSO Framework), and UWM's institutional culture, and sponsor audits of effort reporting.
- Identify alternatives to effort reporting for UWM that comply with federal regulations and reduce administrative burden.
- Investigate the capabilities of UWM's electronic effort reporting system to support alternative approaches to effort reporting.

- Recommend a strategy to improve internal control (if needed) and to reduce the administrative burden of meeting the regulatory requirements for documenting compensation charged to federal grants at UWM.

An evaluation of UWM’s current effort reporting process would not be complete without examining its system of internal control for compensation charged to federal grants and ensuring that roles and responsibilities are clearly defined. Given the current emphasis on internal control in the Uniform Guidance, it is important to evaluate both existing internal controls and those necessary to support alternative methodologies.

1.5 Significance

Universities are at high risk of non-compliance with effort reporting rules because salaries and wages often comprise more than half of the expenses charged to federal grants. The consequences of not complying with federal regulations are significant: federal audits of effort reporting in recent years have resulted in universities paying multimillion-dollar settlements. For example, in 2008, Yale University agreed to pay a \$7.6 million settlement for audit findings related to effort reporting and cost transfers.¹⁶ Furthermore, according to Baker Tilly, weaknesses with internal controls related to personnel costs may lead auditors to question the reasonableness and allowability of other costs charged to federal grants.¹⁷

¹⁶ US Department of Justice, US Attorney, District of Connecticut, *Yale University to Pay \$7.6 Million to Resolve False Claims Act and Common Law Allegations* (New Haven, CT: December 23, 2008), accessed March 14, 2018, <https://oig.nasa.gov/press/pr2009-B.pdf>.

¹⁷ “Effort reporting-auditing a complex process,” Baker Tilly, 2010, accessed March 14, 2018, http://bakertilly.com/uploads/9_auditing-effort-reporting-2014.pdf.

An investigation of ways to improve compliance with regulatory requirements for documenting salaries and wages charged to federal grants may lead to a recommended strategy for UWM to pursue that could strengthen internal control as well as allow UWM to administer its compliance responsibilities more efficiently.

1.6 Exclusions and Limitations

As a new employee of UWM, the author's knowledge of the university is limited; thus, the author has relied on interviews with management, administrators, and researchers to obtain historical information for this project. Although targeted interviews were conducted with key people involved with effort reporting at UWM, a thorough, wide-reaching survey of researchers and administrators was not conducted. Therefore, most of the qualitative data collected about UWM is the result of several interviews, and the quantitative data is limited to that which is routinely retrieved from the electronic effort reporting system.

Like UWM, UW-Madison has an inherently high risk for non-compliance in effort reporting. Ranked as one of the Top Ten research institutions in country, UW-Madison has experienced significant scrutiny of its effort reporting system by federal agency auditors. In 2007, UW-Madison and UWM teamed up to implement an electronic effort reporting system to improve compliance and efficiency at both campuses. Because UW-Madison's volume of effort reports is far greater than UWM's, UW-Madison provides most of the technical resources required to update and maintain the system. UWM provides some technical support for the system but the availability of IT staff is

limited. Thus, the cost of providing system support was not part of the analysis for this paper.

Chapter 2.

Literature Review

2.1 Overview

In the United States, an efficient and productive federal government-university partnership is vital to a healthy research enterprise. Regulatory compliance and oversight are necessary aspects of doing business with the federal government; however, the implementation of numerous new and amended regulations since 1991 has directly impacted the way in which federally funded grant research is conducted and managed.¹⁸ Furthermore, “the current regulatory climate has become dysfunctional – regulations do not align closely with true risk, and new regulatory mandates are unfunded due to the 26-percent cap on reimbursement of administrative costs.”¹⁹

Effort reporting regularly tops the list of grant-related administrative tasks that cause frustration among researchers. The theoretical concept of effort is difficult to implement in practice. In Circular A-21, OMB provided examples of acceptable methods for documenting the salaries and wages charged to federal grants.²⁰ Each of these methods required a form of after-the-fact confirmation that compensation was reasonable

¹⁸ “COGR List of Regulatory Changes Since 1991,” COGR Council on Governmental Relations, last modified October 2017, accessed March 26, 2018, <http://www.cogr.edu/cogr-list-regulatory-changes-1991-0>.

¹⁹ Association of American Universities, Association of Public and Land-grant Universities, Council on Governmental Relations, *Regulatory and Financial Reform of Federal Research Policy Recommendations to the NRC Committee on Research Universities* (January 21, 2011), 1-8, accessed March 16, 2018, https://www.energy.gov/sites/prod/files/gcprod/documents/RFIRegReview_CouncilGovtRelationsAppendix_03212011.pdf.

²⁰ Office of Management and Budget, *Circular A-21, Cost Principles for Educational Institutions* (May 10, 2004), accessed March 16, 2018, https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/circulars/A21/a21_2004.pdf.

in relation to the work performed.²¹ Under these regulations, most research universities employed effort reporting systems that complied with one of the examples in Circular A-21. As has been documented in research administration publications and proceedings, the cost of effort reporting for universities in terms of PI and administrative time, as well as the investment in software systems, is immense.

By eliminating prescriptive examples of acceptable methods for effort reporting, the Uniform Guidance provides universities with more flexibility in determining the most appropriate methodology for documenting salaries and wages charged to federal grants. The emphasis on internal controls in compliance with the COSO Framework means universities can customize their approach to meeting the regulatory requirements for salaries and wages.²²

Congress, the Executive Branch of the federal government, universities, and university association discussions and groundbreaking reports on administrative burden have raised awareness of the regulatory drain placed on universities. Although efforts are underway to improve the situation, much work needs to be done. The FDP, a cooperative initiative among ten federal agencies and 154 institutions, was formed to reduce administrative burdens related to federal grants.²³ This is done through working groups,

²¹ Office of Management and Budget, *Circular A-21, Cost Principles for Educational Institutions* (May 10, 2004), accessed March 16, 2018, https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/circulars/A21/a21_2004.pdf.

²² Office of Management and Budget, *2 CFR 200 Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Washington, DC: National Council of University Research Administrators, 2015).

²³ "About," Federal Demonstration Partnership, accessed March 26, 2018, http://sites.nationalacademies.org/PGA/fdp/PGA_054588.

pilot projects, and other initiatives which involve federal agencies and universities. In support of its mission, the FDP piloted a Payroll Certification System (PCS) as an alternative to effort reporting. The PCS eliminates the concept of effort and requires PIs to certify a payroll report, on an annual basis for each project. The annual certification is to ensure that the salaries and wages charged to federal grants are reasonable in relation to the work performed.²⁴

Given the problems inherent with effort reporting, in 2016 the National Council of University Research Administrators (NCURA), a professional association that works to advance the field of research administration, funded the “NCURA Cohort” research project (NCURA Cohort) for a cohort of universities to develop model policy alternatives to effort reporting.²⁵ According to the project leaders, more than 100 universities have become members, many of which are examining their options for complying with regulations related to compensation.²⁶ Member institutions, Oregon State University, Arizona State University, and the University of Chicago are currently transitioning to an alternative to effort reporting.²⁷ Although the NCURA Cohort is engaging with the federal audit community, universities are cautiously waiting for the audit reports from universities using alternatives to effort reporting under the Uniform Guidance.

²⁴ Federal Demonstration Partnership, *Payroll Certifications: A Proposed Alternative to Effort Reporting* (2011), 6, accessed February 1, 2018, http://sites.nationalacademies.org/cs/groups/pgasite/documents/webpage/pgas_055994.pdf.

²⁵ “Model Policy Development to Reduce Administrative and Faculty Burden University Cohort Information,” Arizona State University, last modified March 22, 2018, accessed March 26, 2018, <https://researchadmin.asu.edu/cohort/model>.

²⁶ Lisa Moseley, Jeremy Forsberg, and David Ngo, interview by author, February 5, 2018.

²⁷ Ibid.

Universities have different risk tolerances, and the audit reports will influence the decisions of universities regarding effort reporting.

2.2 Details of Review

In his groundbreaking report *Science – The Endless Frontier*, Vannevar Bush, who in 1942 became the first Director of the newly formed U.S. Office of Scientific Research and Development, outlined his vision for the federal government’s role in scientific research. Partnering with universities to support basic research was an essential element of that vision.²⁸ Over the last 50 years, the advancement of that partnership has helped the United States become a leader in science and technology.²⁹ Each year, billions of dollars in federal grants are awarded to universities in support of research and programs that benefit the public. Policies that promote transparency, accountability, and compliance with regulatory requirements are essential to the government-university partnership to insure good stewardship of taxpayer dollars. Universities and their researchers understand the need for rules and regulations and accept their responsibility to conduct research safely and to the highest ethical standards.³⁰ However, the federal

²⁸ Vannevar Bush, *Science - The Endless Frontier*, (Washington, DC: US Government Printing Office, 1945), 16-20, accessed March 14, 2018, <https://www.nsf.gov/od/lpa/nsf50/vbush1945.htm#summary>.

²⁹ President’s Council of Advisors on Science and Technology, *Transformation and Opportunity: The Future of the U.S. Research Enterprise* (November 2012), 62, accessed March 26, 2018, https://www.aaas.org/sites/default/files/migrate/uploads/pcast_future_research_enterprise_20121130.pdf.

³⁰ Association of American Universities, Association of Public and Land-grant Universities, Council on Governmental Relations, *Regulatory and Financial Reform of Federal Research Policy Recommendations to the NRC Committee on Research Universities* (January 21, 2011), 1-8, accessed March 16, 2018, https://www.energy.gov/sites/prod/files/gcprod/documents/RFIRegReview_CouncilGovtRelationsAppenix_03212011.pdf.

policies that oversee grants have evolved to the point of creating a dysfunctional relationship between universities and the federal government.³¹

Since the 1960s, effort reporting has been identified as one of the compliance requirements that causes frustration, is expensive to administer, and contributes significantly to the amount of time PIs spend on administrative tasks. In 2011, the Association of American Universities, Association of Public & Land-Grant Universities, and Council on Governmental Relations (COGR) declared that effort reporting regulations could be eliminated without harming accountability and regulatory oversight of federal grants.³²

Effort reporting is a compensation costing issue that is governed by the cost principles for educational institutions. The regulatory requirements for salaries and wages charged to federal grants were originally located in Circular A-21, which was first published in 1958. Section J.10 of the guidelines acknowledged the need for institutions to have flexibility in determining the best method for allocating salaries, because:

It is recognized that, in an academic setting, teaching, research, service, and administration are often inextricably intermingled. A precise assessment of factors that contribute to costs is not always feasible, nor is it expected. Reliance, therefore, is placed on estimates in which a degree of tolerance is appropriate.³³

³¹ Association of American Universities, Association of Public and Land-grant Universities, Council on Governmental Relations, *Regulatory and Financial Reform of Federal Research Policy Recommendations to the NRC Committee on Research Universities* (January 21, 2011), 1-8, accessed March 16, 2018, https://www.energy.gov/sites/prod/files/gcprod/documents/RFIRegReview_CouncilGovtRelationsAppendix_03212011.pdf.

³² *Ibid.*

³³ Office of Management and Budget, *Circular A-21, Cost Principles for Educational Institutions, Section J. 10* (May 10, 2004), accessed March 16, 2018, https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/circulars/A21/a21_2004.pdf.

As much as effort reporting is discussed by the government and universities, COGR noted in its 2005 paper titled *Effort Reporting – How Universities Meet the Current Federal Requirements* that the term *effort reporting* is not used in either the cost principles or the administrative requirements applicable to institutions of higher education.³⁴ Additionally, the report pointed to the government’s emphasis on verifying that the salaries and wages charged to federal grants is appropriate for the activity performed.³⁵

Although Circular A-21 does not prescribe specific methods for documenting compensation charged to federal grants, it does provide examples of acceptable methods that meet the criteria listed in the guidelines. Each of the methods described in the regulations requires a system for confirming that the actual compensation charged to an award is reasonable for the work performed, and that the system used is the official institutional system for distributing all payroll expenses for all activities.³⁶ Auditors have interpreted the examples as prescriptive; thus, most research universities have adopted one of the methods described in Circular A-21.

Citing concerns over the significant amount of improperly billed salaries and wages that were part of recent civil settlements involving several large universities in

³⁴ Council on Governmental Relations, *Effort Reporting – How Universities Meet the Current Federal Requirements* (June 1, 2005), 2, accessed March 16, 2018, [http://www.cogr.edu/COGR/files/ccLibraryFiles/Filename/000000000078/Effort_Reporting_-_How_Universities_Meet_the_Current_Federal_Requirements%20\(1\).pdf](http://www.cogr.edu/COGR/files/ccLibraryFiles/Filename/000000000078/Effort_Reporting_-_How_Universities_Meet_the_Current_Federal_Requirements%20(1).pdf).

³⁵ *Ibid.*

³⁶ *Ibid.*, 6.

2005, the National Science Foundation's Office of Inspector General (NSF OIG) initiated a series of effort reporting audits of its largest funded universities.³⁷ Overall, sixteen universities were audited, and many recurring issues, such as managing effort commitment, who certifies, and the definition of 100% effort, emerged in the audit reports.³⁸ St. Louis University, Weill Cornell Medical College, and Yale University paid settlements of at least \$1 million.³⁹

In 2011, concern over the challenges surrounding effort reporting led the FDP to propose the PCS as an alternative to existing effort reporting systems. According to the FDP, the proposed methodology complied with Circular A-21, eliminated the concept of effort, and focused on the relationship between the compensation charged to a federal grant and the work performed during the project's budget cycle.⁴⁰ Four universities, George Mason University, Michigan Technological University, the University of California at Riverside, and the University of California at Irvine, piloted the PCS and agreed to have both their traditional effort reporting system and pilot PCS audited. Two of the pilot institutions, George Mason University and Michigan Technological University, were audited by the NSF OIG. The audit report for each university noted that

³⁷ National Science Foundation, Office of Inspector General, *Semiannual Report to Congress Audits & Reviews* (September 2005), 20, accessed March 16, 2018, <https://www.nsf.gov/pubs/2005/oigsept2005/pdf/chapter2.pdf>.

³⁸ Kim Moreland, "Effort Reporting – Again" (presentation at the 2010 NCURA Region IV Meeting, Omaha, NE, April 27-30, 2010), accessed March 15, 2018, http://ncuraregioniv.com/uploads/3/4/2/4/34247560/effort_reporting_again_v_2.pdf.

³⁹ *Ibid.*

⁴⁰ Federal Demonstration Partnership, *Payroll Certifications: A Proposed Alternative to Effort Reporting* (2011), 6, accessed February 1, 2018, http://sites.nationalacademies.org/cs/groups/pgasite/documents/webpage/pgasite_055994.pdf.

both the effort reporting and PCS methodologies rely on people and systems, as well as institutional internal controls, to ensure that policies and procedures are followed.⁴¹ Moreover, both audit reports emphasized the importance of strong internal controls when using the pilot system, because the certification of salaries in the PCS occurs less frequently than in traditional effort reporting.⁴² Additionally, the reports commented on the fact that the universities did not always follow their own internal policies and procedures. Finally, the auditors emphasized the need for universities to retain the full allocation of payroll for each person's activities and recommended making it available to PIs in both dollars and percentages.⁴³

In June 2017, the NSF OIG issued a memorandum to OMB with two recommendations for adapting the FDP PCS to comply with the new Uniform Guidance regulations, which were implemented during the pilot program. The OIG advocated for universities to require monthly or bi-monthly reconciliations of budget to actual personnel costs for each award and to give PIs access to the full payroll allocations for each person charged to their projects.⁴⁴ As noted in both audit reports, OIG believed

⁴¹ National Science Foundation, Office of Inspector General, *Labor Effort Reporting under the Federal Demonstration Project's Pilot Payroll Certification Program at George Mason University*, OIG 15-1-017 (2017), 9, accessed March 13, 2018, <https://www.nsf.gov/oig/pdf/15-1-017-GMU.pdf>.; National Science Foundation, Office of Inspector General, *Labor Effort Reporting under the Federal Demonstration Partnership Pilot Payroll Certification at Michigan Technological University*, OIG 15-1-023 (2015), 9, accessed March 13, 2018, <https://www.nsf.gov/oig/pdf/15-1-023-MTU.pdf>.

⁴² Ibid.

⁴³ Ibid.

⁴⁴ Mark Bell, Office of Inspector General, Office of Audits, *Federal Demonstration Partnership's Pilot Payroll Certification Program – Compliance with 2 CFR 200* (June 21, 2017), accessed March 27, 2017, https://www.nsf.gov/oig/pdf/Pilot_Program.pdf.

these two practices would assure that annual certifications were reasonable and that no more than 100% of a person's salary was charged to federal awards.⁴⁵

The OIG for the Department of Health and Human Services (DHHS) was tasked with auditing the other two universities, the University of California at Irvine, and the University of California at Riverside, in the PCS pilot program. In the first audit, the University of California at Irvine could not reconcile its accounting records to the Federal Financial Reports (FFRs), and thus, it could not provide a valid transaction list for the auditors to use for sampling purposes.⁴⁶ This led the DHHS OIG to stop the audit and report that it could not determine whether the University's pilot system provided the data required to support the salaries and wages charged to federal awards.⁴⁷

In the second audit, the DHHS OIG found that the University of California at Riverside's pilot system provided less accountability over payroll charges to federal awards than the previous effort reporting system.⁴⁸ Furthermore, the auditors did not believe the new system was compliant with certain Circular A-21 requirements for compensation.⁴⁹ Several issues raised by the auditors were reminiscent of the NSF effort

⁴⁵ Mark Bell, Office of Inspector General, Office of Audits, *Federal Demonstration Partnership's Pilot Payroll Certification Program – Compliance with 2 CFR 200* (June 21, 2017), accessed March 27, 2017, https://www.nsf.gov/oig/_pdf/Pilot_Program.pdf.

⁴⁶ Department of Health and Human Services, Office of Inspector General, *The University of California at Irvine's Pilot Payroll Certification System Could Not Be Assessed*, A-04-13-01027 (2014), ii, accessed March 13, 2018, <https://oig.hhs.gov/oas/reports/region4/41301027.asp>.

⁴⁷ *Ibid.*, 4.

⁴⁸ Department of Health of Human Services, Office of Inspector General, *The University of California at Riverside's Pilot Payroll Certification System Did Not Provide Accountability Over Payroll Charges to Federal Awards*, A-04-13-0126 (2017), iii, accessed March 13, 2018, <https://oig.hhs.gov/oas/reports/region4/41301026.asp>.

⁴⁹ *Ibid.*

reporting audits completed just a few years prior to this audit. For instance, the findings in this audit report included issues with PIs having a suitable means of verifying that salary charged to an award was reasonable in relation to the work performed and that the compensation charges represented the actual work performed and not just budget estimates. Additional findings focused on documentation for prior approvals, justification for adjustments and cost transfers, and the importance of developing internal procedures to ensure that compensation is properly allocated, including verification that salaries charged to all activities do not exceed 100%.⁵⁰

The FDP and others closely watching the pilot had hoped the OIG audits would result in clear support for the PCS as an alternative to effort reporting, however, the audit reports issued by NSF and DHHS were not a ringing endorsement of this alternative methodology. The Michigan Technological University audit report was the only one of the four universities in the pilot to state that “Overall, we found that the MTU’s system generally provided accountability over federal funds.”⁵¹

The National Academies of Sciences continued the national dialog related to administrative burden with its report *Research Universities and the Future of America: Ten Breakthrough Actions Vital to Our Nation’s Prosperity and Security*, which underscored the importance of eliminating regulations that ultimately escalate

⁵⁰ Department of Health of Human Services, Office of Inspector General, *The University of California at Riverside’s Pilot Payroll Certification System Did Not Provide Accountability Over Payroll Charges to Federal Awards*, A-04-13-0126 (2017), 17, accessed March 13, 2018, <https://oig.hhs.gov/oas/reports/region4/41301026.asp>.

⁵¹ National Science Foundation, Office of Inspector General, *Labor Effort Reporting under the Federal Demonstration Partnership Pilot Payroll Certification at Michigan Technological University*, OIG 15-1-023 (2015), 5, accessed March 13, 2018, <https://www.nsf.gov/oig/pdf/15-1-023-MTU.pdf>.

administrative costs and reduce research productivity without adding significant value.⁵²

This report recognized effort reporting as an area of great concern. As a result, the committee recommended eliminating effort reporting or, at a minimum, the regulations undergo significant reform.⁵³

The National Science Board joined the national dialogue in 2014 with its report *Reducing Investigators' Administrative Workload for Federally Funded Research*, which identified effort reporting as the top area of concern because of the administrative burden on PIs and cost to universities.⁵⁴ President Barack Obama's commitment to modernize government and improve transparency brought regulatory reform to federal assistance awards in the form of the Uniform Guidance. These regulations (effective December 26, 2014) superseded the existing OMB Circulars for cost principles, administrative requirements, and audits. The purpose of the Uniform Guidance was to streamline federal policies and improve efficiency by focusing on outcomes and improved performance while at the same time ensuring good stewardship of taxpayer dollars.⁵⁵ When formulating the new regulations, OMB attempted to allow universities more flexibility in determining how to meet the regulatory requirements for federal grants by eliminating the

⁵² Committee on Research Universities; Board on Higher Education and Workforce; Policy and Global Affairs; National Research Council, *Research Universities and the Future of America: Ten Breakthrough Actions Vital to Our Nation's Prosperity and Security* (Washington, DC: The National Academies Press, 2012), 15, Adobe PDF eBook.

⁵³ *Ibid.*, 135.

⁵⁴ National Science Foundation, National Science Board, *Reducing Investigators' Administrative Workload for Federally Funded Research* (March 10, 2014), 11, accessed March 16, 2018, <https://www.nsf.gov/pubs/2014/nsb1418/nsb1418.pdf>.

⁵⁵ Mark Bell, Office of Inspector General, Office of Audits, *Federal Demonstration Partnership's Pilot Payroll Certification Program – Compliance with 2 CFR 200* (June 21, 2017), 207, accessed March 27, 2017, https://www.nsf.gov/oig/pdf/Pilot_Program.pdf.

examples of acceptable methods for documenting salaries and wages charged to federal grants. Overall, the Uniform Guidance intensified the role of internal controls in the administration of federal grants.

The Congressionally mandated report, *Optimizing the Nation's Investment in Academic Research: A New Regulatory Framework for the 21st Century* elevated the dialogue on regulatory burden to new heights by highlighting the negative impact on federally funded research productivity due to increases in regulatory requirements.⁵⁶ The report specifically addressed the administrative burden caused by the requirements for salaries and wages, and pointed to the FDP PCS as an alternative that significantly reduces burden, going so far as to recommend that Congress and OMB affirm that universities may take advantage of the flexibility offered in the Uniform Guidance.⁵⁷

Since its formation in 2016, the NCURA Cohort research project has made progress toward its deliverables, having drafted a model policy for compensation charged to federal awards. Moreover, nine universities in the NCURA Cohort are in the process of implementing an alternative to effort reporting, and thirteen universities have successfully transitioned away from effort reporting to an alternative methodology.⁵⁸ UWM was an early member of the NCURA Cohort but has not been actively involved in

⁵⁶ Committee on Federal Research Regulations and Reporting Requirements: A New Framework for Research Universities in the 21st Century; Committee on Science, Technology, and Law; Board on Higher Education and Workforce; Policy and Global Affairs; National Academies of Sciences, Engineering, and Medicine, *Optimizing the Nation's Investment in Academic Research: A New Regulatory Framework for the 21st Century* (Washington, DC: The National Academies Press, 2016), 123-128, Adobe PDF eBook.

⁵⁷ *Ibid.*

⁵⁸ Lisa Moseley, Jeremy Forsberg, and David Ngo, interview by author, February 5, 2018.

the group's efforts. All of this activity and dialogue is encouraging, but what remains to be seen is how the audit community will respond to changes in methodology.

Chapter 3.

Project Description

UWM currently uses an electronic effort reporting system to satisfy the regulatory requirements for documenting salaries and wages charged to federal grants. In 2007, Huron Consulting Group's web-based Effort Certification & Reporting Technology (ECRT) software system replaced UWM's former paper-based process. Implemented in concert with UW-Madison, ECRT allowed UWM and UW-Madison to leverage software technology to improve efficiency and compliance, update policies and procedures, and enhance the training offered to campus stakeholders in this area of compliance.

A decade after this substantial overhaul of effort reporting at UWM, much has changed in the regulatory arena. Therefore, the time is right to conduct a review of the current process in order to assess the effectiveness of the system. The review will begin with an analysis of UWM's *Policy on Effort, Commitments, and Effort Certification* and Effort Guidelines to determine how well practice mirrors policy, which parts require updating, and whether the policy meets current regulatory requirements. The Guidelines will be compared to practice and evaluated for effectiveness. For example, the Guidelines define the roles and responsibilities of UWM PIs, departments and Effort Coordinators, colleges and schools, and OSP. Questions to be answered include:

- Are roles and responsibilities clearly defined?
- Are the Guidelines being followed appropriately?
- Do the Guidelines need to be updated?

Data from the ECRT system, such as certification rates by reporting period, the amount of certified and uncertified salary by reporting period, and certification rates at specific points within the certification window by period, will be studied to determine compliance with institutional policy and federal regulations. The data will be used to evaluate the effectiveness of the current system.

The federal regulatory environment has changed dramatically since the implementation of ECRT in 2007, thus an examination of the literature and regulatory changes is an essential element of this project. Published reports from the National Academies of Sciences, National Science Board, and FDP; audit reports issued by the OIG at both NSF and DHHS for audits of effort reporting at multiple universities; and the NCURA Cohort documents offer some of the most relevant information related to the national dialogue on effort reporting. This is just a sampling of the information reviewed for this project.

Internal controls serve as the foundation for the financial management of federal awards, as they help an “entity run its operations efficiently and effectively, report reliable information about its operations, and comply with applicable laws and regulations.”⁵⁹ Therefore, it is not surprising that the government emphasized the importance of internal control in the Uniform Guidance by using the term *internal*

⁵⁹ US Government Accountability Office, By the Comptroller General of the United States, *Standards for Internal Control in the Federal Government*, GAO-14-704G (2014), accessed March 12, 2018, <https://www.gao.gov/greenbook/overview>.

control forty-eight times in the narrative.⁶⁰ Furthermore, 2 CFR 200.303(a) directs universities to a specific framework by stating:

Internal controls should be in compliance with guidance in ‘Standards for Internal Control in the Federal Government’ issued by the Comptroller General of the United States or the ‘Internal Control Integrated Framework’, issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).⁶¹

These sources use the same five components of internal control, which makes it easier for universities to map their internal controls to a recommended framework.

In addition, 2 CFR 200.430(h)(8)(i) *Standards for Documentation of Personnel Expenses* states that records supporting salaries and wages charged to federal grants must be “supported by a system of internal control which provides reasonable assurance that the charges are accurate, allowable, and properly allocated.”⁶² Because the Uniform Guidance emphasized internal controls, a critical part of the project is to evaluate UWM’s system of internal control for salaries and wages charged to federal awards against the COSO Framework. Consideration will be given to UWM’s culture and resources in conjunction with the regulatory requirements. It is important to note that the internal controls required for effort reporting may differ from those required for alternative methodologies.

The flexibility offered by the Uniform Guidance has led to a spectrum of alternatives to effort reporting identified by the FDP through its PCS pilot and the

⁶⁰ Office of Management and Budget, *2 CFR 200 Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Washington, DC: National Council of University Research Administrators, 2015).

⁶¹ *Ibid.*, 32.

⁶² *Ibid.*, 73.

NCURA Cohort in its model policy matrix.⁶³ Currently, 103 universities have joined the NCURA Cohort, thus expressing interest in the dialog regarding alternatives to effort reporting. Some institutions, such as Stanford University and the California Institute of Technology (Caltech), have never done effort reporting—they have successfully relied on alternative methodologies.⁶⁴ Other universities have embraced alternative methodologies and have already transitioned to customized methodologies that align with their individual circumstances; the University of Texas System schools and the FDP PCS pilot universities fall into this category.⁶⁵

Identifying alternatives to effort reporting that are compliant with federal regulations is a crucial element of this project. The literature indicates that the spectrum of options being considered and implemented by other universities is broad, and thus, UWM will benefit from the intellectual investment already made by experts at research universities across the country.

The ECRT software system works well for effort reporting but an element of this project will be determining its capabilities for handling alternative methodologies. ECRT provides work flow, automatic notifications, dashboards, and approvals routing in addition to maintaining a database of effort statements. Due to the volume of effort reports generated each year, an electronic system is necessary for managing both the workload and communications with campus stakeholders. A change in methodology

⁶³ “Model Policy Development to Reduce Administrative and Faculty Burden University Cohort Information,” Arizona State University, last modified March 22, 2018, accessed March 26, 2018, <https://researchadmin.asu.edu/cohort/model>.

⁶⁴ Lisa Moseley, Jeremy Forsberg, and David Ngo, interview by author, February 5, 2018.

⁶⁵ Ibid.

would require program modifications to ECRT and the commitment of UWM IT staff to accomplish these changes. Thus, the availability of campus resources will be an important part of this evaluation.

UWM is motivated to take steps to improve compliance and reduce administrative burden with respect to documenting salaries and wages charged to federal grants. Therefore, recommending a strategy to meet these objectives is the final element of this project. The options being examined cover a broad spectrum of methodologies that could be customized to fit UWM's circumstances. A determination will be made based on an assessment of risk that will encompass UWM resources, culture, and system of internal control.

Chapter 4.
Needs Assessment

4.1 Assessment Elements

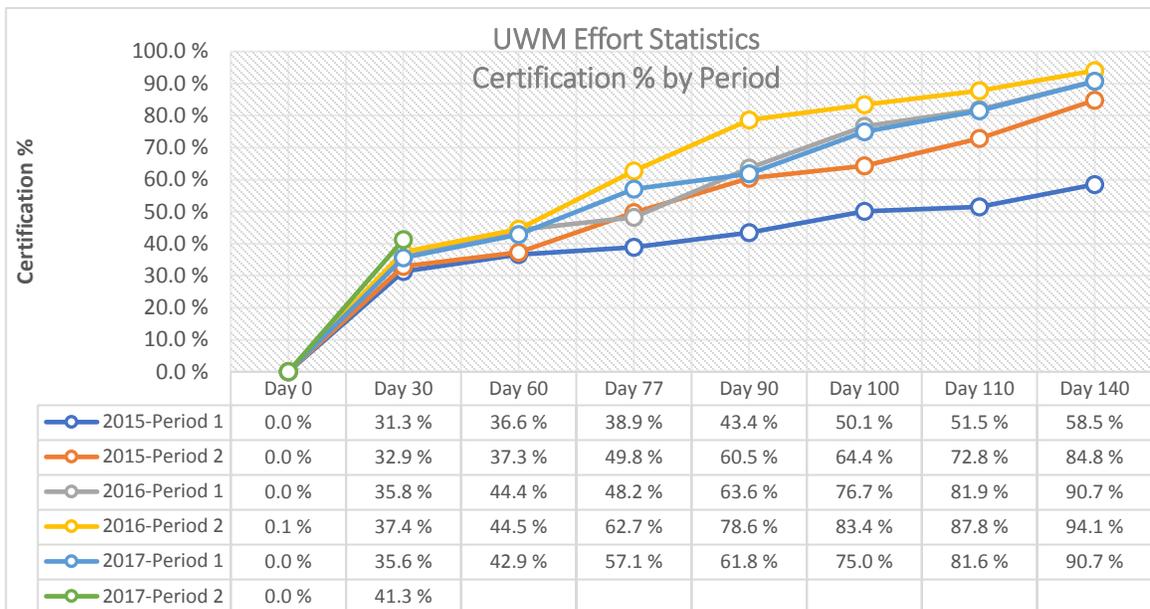
Because effort certification rates at UWM are less than 100%, the university is not in full compliance with institutional policy and federal regulations. A review of effort certification rates by calendar year from 2007 through 2016 revealed that the lowest certification rate was 91.3% in 2008, resulting in \$1,189,450 of uncertified salary (Charts 1 and 2). The highest certification rate for the same period was 98% in 2015, resulting in \$155,643 of uncertified salary (Charts 1 and 2). It is important to note that the certification rates cited are as of February 28, 2018 and reflect certification done at any point in time. Since UWM policy calls for effort reports to be certified 90 days after the effort reporting window opens, certification rates by reporting period for 2015 through 2017 were examined.

Chart 2. Salaries.

Year	Uncertified Salaries & Wages (\$)	Certified Salaries & Wages (\$)	Total Salaries & Wages \$	Salaries & Wages Certified (%)
2007	560,554	12,105,162	12,665,716	95.4
2008	1,189,450	12,905,286	14,094,736	91.3
2009	1,151,990	14,566,650	15,718,640	93.1
2010	1,530,953	16,685,148	18,216,101	91.8
2011	1,105,589	17,945,685	19,051,274	94.5
2012	1,306,169	16,870,829	18,176,998	91.5
2013	496,439	17,380,824	17,877,263	94.7
2014	477,828	16,582,041	17,059,869	95.4
2015	155,643	17,139,188	17,294,831	98.0
2016	223,656	17,351,791	17,575,447	97.5

The analysis found that the highest certification rate at 90 days was 78.6% in the 2016 reporting Period 2 and the lowest rate was 43.4% in the 2015 reporting Period 1 (Figure 1). The fact that these rates are so low and that there is uncertified salary on sponsored projects is a major compliance concern for UWM. Unless salary is certified, it is not considered reasonable, allocable, and allowable, and charging it to federal awards could result in audit findings.

Figure 1. Percentage of effort certification at the University of Wisconsin-Milwaukee by period.



In addition to timeliness, OSP staff are concerned with the quality and accuracy of certified effort reports. Effort is a difficult concept to apply in practice at universities. Researchers and Effort Coordinators are required to complete a short online training program; however, no refresher course is required. If researchers do not properly understand the process, certifications will not be meaningful. The fact that very few researchers request changes to the salary allocations on effort reports may indicate a lack of understanding of effort on their part.

Always a lean organization, UWM has endured severe budget cuts over the last four years and has had to make do with less. Cuts in state funding, a four-year tuition freeze, declining enrollments, and other factors have taken their toll on operations; therefore, any changes to processes and systems that could reduce administrative burden and costs is highly valued.⁶⁶

At UWM, effort reporting involves hundreds of researchers and administrators distributed across divisions, colleges, schools, and centers. During each of the two certification periods each year, between 750 and 800 effort reports are created and require review by Effort Coordinators and certification by PIs and academic staff; therefore, every effort report is reviewed by at least two people. Additionally, staff in OSP monitor certifications, field questions, and approve payroll transfers. The management of this process and the time required of researchers and staff imposes a significant burden on the university. Thus, a compelling argument can be made for exploring alternative methodologies that have the potential to reduce administrative costs, increase compliance, and improve OSP relations with campus customers.

4.2 Metrics

The volume of effort reports processed each year was one consideration when assessing the need for this project. Since 2008, at least 1,600 effort reports have been generated each calendar year (Chart 1). The effort certification process is administered by the Effort Compliance and Subaward Specialist in OSP, who devotes 50% of his time to

⁶⁶ "Strategic Opportunities," UW-Milwaukee, accessed March 26, 2018, <https://uwm.edu/strategicopportunities/>.

effort reporting duties. Most of the IT support is provided by staff at UW-Madison, however, UWM has one IT person in the Office of Research that supports the ECRT system.

Data has been collected in the ECRT system since it was implemented in 2007.

Reports querying data from this system provided the following information:

- Number of effort reports that were certified, uncertified, and the total number of reports generated by calendar year.
- Amount of salary that was certified, uncertified, and the total salary required to be certified by calendar year.
- Percentage of effort reports that were certified at 0, 30, 60, 77, 90, 100, 110, and 140 days after the first day the reports are available in ECRT by reporting period.

In 2015, the Compliance Manager in OSP developed a retooling plan aimed at improving compliance. The plan focused on communication, and it helped to increase certification rates until 2017, when the rates began to fall again. OSP experienced staffing turnover and office restructuring, which led to limited support for effort reporting during 2017.

Since the Uniform Guidance does not have a materiality threshold, compliance with federal regulations and institutional policy requires 100% certification within the 90-day certification window. Although UWM has not reached this level of compliance in recent years, the expected stability in OSP staffing will help UWM move closer to achieving this objective.

4.3 Institutional Interviews

The Director of the Office of Sponsored Programs at UWM expressed interest in exploring alternatives to effort reporting after attending a session on the topic at the October 2017 COGR meeting. This led to discussions with the Vice Provost for Research and the Assistant Director for Post-Award Administration, which revealed long-term challenges with effort reporting. Low certification rates, concerns over the quality of the certifications, faculty frustration, and the desire to gain efficiency led to the approval for this project.

Chapter 5.

Methodology

5.1 Interviews

This project used qualitative data as the primary means of studying the regulatory environment related to salaries and wages charged to federal grants and effort reporting at UWM. On the national level, interviews were conducted with experts in research administration who have been at the forefront of the effort reporting dialog and who represent research universities that have taken alternative approaches to meeting the regulatory requirements under the Uniform Guidance.

Specifically, an interview was conducted with the three leaders of the NCURA Cohort research project: Executive Director, Office of Sponsored Projects, Yale University (PI); the Assistant Vice President for Research, University of Texas at Arlington; and the Associate Provost for Research Support, The New School. This group interview covered the following topics: (1) the status of schools exploring alternative methodologies, (2) engagement with the audit community, (3) feedback received from schools that have transitioned from effort reporting, and (4) the draft policy matrix developed by the NCURA Cohort. Because of their interest in alternatives to effort reporting, 103 universities, including UWM, have joined the NCURA Cohort.⁶⁷

Interviews were also conducted with the institutional representatives of two NCURA Cohort member universities. The first interview was with the Associate Vice President, Research Administration, California Institute of Technology (Caltech). Caltech

⁶⁷ Lisa Moseley, Jeremy Forsberg, and David Ngo, interview by author, February 5, 2018.

has never done traditional effort reporting, it uses a payroll distribution confirmation system to document salaries and wages charged to federal grants.⁶⁸ The following topics were covered in the conversation: (1) the approach the institution was taking for documenting salaries and wages charged to federal grants, (2) the regulatory environment, and (3) audit concerns.

The second interview was with the Assistant Vice President for Research and Director of Office of Sponsored Programs at the University of Alabama (UA). UA is transitioning to a project-based payroll certification system which will require PIs to certify payroll charged to their projects by term (fall, spring, and summer).⁶⁹ The same topics were covered in this interview as were discussed in the conversation with the Associate Vice President, Research Administration at Caltech.

Interviews were also conducted with two members of the Office of Research and Sponsored Programs (RSP) at UW-Madison. The interview with the Associate Vice Chancellor for Research Administration and the Director of Research and Sponsored Programs encompassed UW-Madison's view of alternative methodologies and the national dialog about effort reporting. In contrast to UWM, effort reporting is working well at UW-Madison, where investments in the ECRT system, good policy, and training has led to 100% compliance.⁷⁰ Thus, UW-Madison is not in a hurry to change systems and is just starting to discuss alternatives to effort reporting.

⁶⁸ Dick Seligman, interview by author, February 26, 2018.

⁶⁹ Cindy Hope, interview by author, February 26, 2018.

⁷⁰ Kim Moreland, interview by author, February 16, 2018.

The interview with the Director of Electronic Research Administration at UW-Madison shed light on the ECRT system capabilities for alternative methodologies and UWM's dependence on UW-Madison for system support. Furthermore, the Director of Electronic Research Administration mentioned that UW-Madison is conservative and would like to see clean audits of other Top Ten research universities using alternative methodologies.⁷¹

Locally, interviews were conducted with UWM research administrators who review effort reports and assist researchers with the certification process, as well as with PIs who are required to certify their effort. The Assistant Director of Post-Award Administration and the Effort Compliance and Subaward Specialist provided institutional background and context for this analysis, as well as detailed information about the ECRT system, effort reporting procedures, and internal controls related to this area of compliance.

An interview with a Grants Administrator and the Director of the UWM Shared Office for Administration of Research (SOAR) garnered information about effort reporting at UWM from the perspective of department administrators who work closely with PIs and who may serve as Effort Coordinators. Both administrators agreed that effort reporting is “painful” at UWM. The discussion focused on specific pain points, such as the lack of understanding by faculty, concern over the quality of certifications, confusion over the salary displayed on effort reports, and cost sharing.⁷²

⁷¹ Kim Moreland, interview by author, February 16, 2018.

⁷² Erick Gresnick and Stefanie Pinnow, interview by author, Milwaukee, February 26, 2018.

In addition, two UWM faculty researchers were interviewed for this project. Conversations with a Clinical Assistant Professor in the College of Nursing and an Associate Professor in the College of Engineering & Applied Science reaped information about effort reporting from the perspective of UWM researchers who are required to certify their own effort, as well as the effort of postdoctoral researchers and graduate students who work on their projects.

Federal regulations (Circular A-21 and the Uniform Guidance) governing grants to universities served as the regulatory foundation for examining effort reporting and evaluating alternative methodologies. Literature published by the federal government, university associations, scientific journals, non-profit organizations, and other universities was analyzed for this project. Articles and reports focused on administrative burden, the regulatory environment, effort reporting, and alternatives to effort reporting were considered the most relevant for this analysis. Furthermore, UWM policies, procedures, and guidelines were examined to determine the strength of internal controls and compliance with regulatory requirements.

Quantitative data from the ECRT system was used to evaluate UWM's compliance with institutional policies and federal regulations for documenting salaries and wages charged to federal grants under the current effort reporting system.

5.2 Study Design

The study began with a review of UWM's current effort reporting system. Data was collected through interviews with current and previous OSP and IT staff, and examination of OSP documents related to effort reporting. Additionally, the CITI training

that UWM requires PIs, academic staff, and Effort Coordinators to complete was studied. What emerged was a vibrant picture of the evolution of effort reporting at UWM and its current practices and system operations.

Logging into the ECRT system offered the chance to view the dashboard, learn how to navigate the system, read the resources available to users, and view effort statements. It was important to view ECRT from the user's perspective.

The UWM Effort Guidelines provide detailed information about effort reporting at UWM. Drafted in 2007, it is available on the UWM Office of Research website and is accessible through the ECRT system. The Guidelines define the roles and responsibilities for those involved with effort reporting at UWM and address effort commitments in proposals, charging salary to sponsored projects, cost transfers, and certifying effort.⁷³

As recommended in the Uniform Guidance, UWM's system of internal controls related to salaries and wages charged to grants was evaluated using the COSO Framework. Strengths and weaknesses by internal control component were identified.

The FDP PCS pilot was studied as a potential alternative to effort reporting at UWM; therefore, collecting as much data as possible about the pilot was part of the study design. The proposal, audit reports of the four pilot universities, interviews with people involved in the pilot, reports that cited the program, and presentations that referenced the pilot were studied.

⁷³ "Guidelines for Effort Reporting: Proposing, Managing, and Certifying Effort Associated with Sponsored Projects," University of Wisconsin-Milwaukee, Office of Research, Research Compliance, accessed March 26, 2018, <http://uwm.edu/officeofresearch/wp-content/uploads/sites/91/2015/02/uwm-effort-reporting-guidelines.pdf>.

An examination of the NCURA Cohort's work was part of the study design. Although UWM was already a member of the group, no one at the university had taken an active role in the research project. A close review of the NCURA Cohort's model policy for alternatives to effort reporting compliant with the Uniform Guidance and the COSO internal controls framework was an integral part of this study.⁷⁴ The spectrum of options identified by the NCURA Cohort were evaluated for use by UWM. Documents published by the group were scrutinized and interviews were conducted with the project leaders as well as research administrators at other universities that are members of the NCURA Cohort.

The project was designed to identify alternatives to effort reporting and evaluate them for their strengths and weaknesses in relation to regulatory guidance, administrative burden, and risk, as well as UWM's resources and institutional culture.

Statistical data from the ECRT system was used to assess the need for this project and evaluate compliance under the current effort reporting system. Questions regarding the capability of the ECRT system to handle alternatives to effort reporting were referred to the Director of Electronic Research Administration at UW-Madison. He was interviewed to gain an understanding of the system capabilities and Milwaukee's dependence on UW-Madison for system support.⁷⁵

The project was also designed to result in recommendations for improving compliance with the regulatory requirements for documenting salaries and wages charged

⁷⁴ "Model Policy Development to Reduce Administrative and Faculty Burden University Cohort Information," Arizona State University, last modified March 22, 2018, accessed March 26, 2018, <https://researchadmin.asu.edu/cohort/model>.

⁷⁵ Mark Sweet, interview by author, February 5, 2018.

to federal grants and reducing the administrative burden associated with effort reporting at UWM.

Chapter 6.

Project Results and Discussion

The author asked UWM researchers and administrators what they thought of effort reporting at UWM and their responses varied greatly. Some people understand the concept of effort and found the ECRT system to be intuitive, while others found the entire process to be painful. Perspectives differ by roles and responsibilities, experience, and complexity of a PIs activities, but all PIs and academic staff are required to certify effort twice per year based on UWM's fiscal year. The effort reporting periods bear no relation to project budget cycles or academic schedules, which make sense to PIs who plan their schedules and think in terms of semesters and summer.

6.1 Strengths of UWM's Effort Reporting System

A primary strength of UWM's current effort reporting process is the integrated electronic system (ECRT), which is used to conduct effort reporting twice per year. The ECRT software system is flexible and it can be programmed for project-based certifications in place of traditional effort certification.⁷⁶ UW-Madison provides the IT resources necessary to maintain the system, relieving UWM of this responsibility and the need to commit significant resources.

The effort reporting process uses automatic email notifications, gives PIs 90 days to certify reports, maintains an audit trail for all transactions, tracks cost sharing entered in the financial system, and has clearly defined roles and responsibilities. The UWM

⁷⁶ Mark Sweet, interview by author, February 5, 2018.

Effort Guidelines has established the risk tolerance for accuracy as 5% and addresses areas of compliance, such as reductions in effort and scope changes for sponsored projects.⁷⁷ Compliance has greatly improved since implementing the electronic system which also strengthened internal controls related to salaries and wages charged to federal grants.

6.2 Weaknesses of UWM's Effort Reporting System

The primary weakness of the effort reporting system is the difficulty in applying the complex concept of effort in an institutional setting where teaching, research, and service are commingled. Researchers are confused and don't know how to account for some of their time. PIs, Effort Coordinators, and OSP staff need more training to ensure consistency and quality certifications. Interviews with multiple researchers highlighted the fact that half of them do not understand effort reporting. They talk about it as if it were payroll confirmation and certify the reports with this understanding. It was refreshing to hear one researcher discuss the calendar she maintains to track her activities, the variation in her work schedules, and the fluctuations in effort on her projects.⁷⁸

Although certification rates are high, UWM does not have 100% compliance with institutional and regulatory requirements, because there are uncertified effort reports for every calendar year since 2007.

⁷⁷ "Guidelines for Effort Reporting: Proposing, Managing, and Certifying Effort Associated with Sponsored Projects," University of Wisconsin-Milwaukee, Office of Research, Research Compliance, accessed March 26, 2018, <http://uwm.edu/officeofresearch/wp-content/uploads/sites/91/2015/02/uwm-effort-reporting-guidelines.pdf>.

⁷⁸ Bev Zabler, interview by author, Milwaukee, February 21, 2018.

As discussed in the *Statement of the Problem* section of this paper, another weakness is the delay in updating policies, guidelines, and procedures, which serve as the foundation for effort reporting at UWM. PIs, department administrators, OSP staff, and auditors rely on these documents.

Another challenge for UWM is the fact that UW-Madison maintains the ECRT system. Although UW-Madison consults with UWM and seeks input, UW-Madison decides how the system is used and its needs may override UWM's. The two universities are very different, and there are times when UWM would benefit from being able to adapt the system to better fit its circumstances.

6.3 Internal Controls and the COSO Framework

Section 200.303(a) of the Uniform Guidance requires institutions to “establish and maintain effective internal control” over federal awards, and the controls should be in compliance with the COSO Internal Control - Integrated Framework and the Standards for Internal Control in the Federal Government (Green Book).⁷⁹ The new emphasis on internal controls has forced universities to closely examine their systems of internal control and map them to the five integrated components of the Framework: Control Environment, Risk Assessment, Control Activities, Information and Communication, and

⁷⁹ Office of Management and Budget, *2 CFR 200 Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Washington, DC: National Council of University Research Administrators, 2015), 32.

Monitoring Activities.⁸⁰ There is no evidence that UWM has gone through this process for documenting salaries and wages charged to federal grants.

As part of this project, a partial analysis of UWM's current system for effort reporting was done using the five components of the COSO Framework. Some strengths and weaknesses of the current system were identified by component within the framework.

6.3.1 Control Environment

According to COSO, the control environment:

Comprises the integrity and ethical values of the organization; the parameters enabling the board of directors to carry out its governance oversight responsibilities; the organizational structure and assignment of authority and responsibility; the process for attracting, developing, and retaining competent individuals; and the rigor around performance measures, incentives, and rewards to drive accountability for performance. The resulting control environment has a pervasive impact on the overall system of internal control.⁸¹

As part of the public UW System, UWM has a set of comprehensive compensation policies that address compensation from sponsored projects, assign authority, require prior approval in certain situations, prohibit other practices, and set the stage for compliance with regulations.⁸² Institutional base salary (IBS), the salary paid for all UWM activities, is clearly defined in the policies. Multiple levels of approval are

⁸⁰ Committee of Sponsoring Organizations of the Treadway Commission, PwC, *Internal Control – Integrated Framework Executive Summary* (May 14, 2013), 4-5, accessed March 15, 2018, <https://www.coso.org/Documents/990025P-Executive-Summary-final-may20.pdf>.

⁸¹ *Ibid.*

⁸² "UPS Operational Policies," University of Wisconsin System, accessed March 27, 2018, <https://www.wisconsin.edu/ohrwd/policies/ups-operational-policies/#list>.

required for salary payments (department and division) but OSP is not involved in the original allocation of salary to sponsored projects.

Effort training through CITI is required for PIs and academic staff if compensation is received from or effort is committed on a sponsored project.⁸³ According to the UWM Effort Guidelines, this should be completed within 90 days from the date the first effort certification statement is available for certification in ECRT.⁸⁴ OSP tracks those who have completed the training; however, some people do not fulfill this requirement and OSP has little leverage. New awards are not set up and no-cost extensions are not processed until the effort training is completed, but that is the only penalty PIs experience. OSP regularly receives requests from researchers and administrators for additional training, and thus, there is a need to offer a refresher course and other routine training opportunities. The CITI course curriculum is outdated as it still refers to the former department name for OSP which creates confusion.⁸⁵

The tone from the Board of Regents of the UW System is one of compliance, integrity, and ethical values that are pushed down to the rest of the organization. However, OSP should spend more time developing relationships with schools, colleges and centers to ensure all levels of university management understand effort reporting and the risks associated with non-compliance.

⁸³ "Guidelines for Effort Reporting: Proposing, Managing, and Certifying Effort Associated with Sponsored Projects," University of Wisconsin-Milwaukee, Office of Research, Research Compliance, accessed March 26, 2018, <http://uwm.edu/officeofresearch/wp-content/uploads/sites/91/2015/02/uwm-effort-reporting-guidelines.pdf>.

⁸⁴ Ibid.

⁸⁵ "Research Compliance," UW-Milwaukee, accessed March 27, 2018, <https://about.citiprogram.org/en/homepage/>.

6.3.2 Risk Assessment

COSO defines risk assessment “as the possibility that an event will occur and adversely affect the achievement of objectives.”⁸⁶ UWM regularly assesses the risk related to accepting grant and contract terms; research involving human subjects, animals, and hazardous chemicals; and conflicts of interest. These examples illustrate the “dynamic and iterative process” required to evaluate risks, establish risk tolerances, and determine how to manage risks.⁸⁷ Effort reporting is an area of high risk for universities because of the amount of salaries and wages charged to federal grants.

UWM mitigates risks related to effort through the policy and Effort Guidelines which address: (1) minimum effort by PIs on all projects, (2) maximum compensation charged to sponsored projects and paid to employees, (3) department and division approval for salary payments, (4) certification of effort reports, and (5) a reduction in OSP services for not complying.⁸⁸

If a mistake is discovered in reporting effort, reconfirmation of effort is allowed in certain circumstances, but it requires justification. UWM requires certification of all salary and wages charged to sponsored projects, and PIs see 100% of the salary paid

⁸⁶ Committee of Sponsoring Organizations of the Treadway Commission, PwC, *Internal Control – Integrated Framework Executive Summary* (May 14, 2013), 4, accessed March 15, 2018, <https://www.coso.org/Documents/990025P-Executive-Summary-final-may20.pdf>.

⁸⁷ Committee of Sponsoring Organizations of the Treadway Commission, PwC, *Internal Control – Integrated Framework Executive Summary* (May 14, 2013), 4, accessed March 15, 2018, <https://www.coso.org/Documents/990025P-Executive-Summary-final-may20.pdf>.

⁸⁸ “Guidelines for Effort Reporting: Proposing, Managing, and Certifying Effort Associated with Sponsored Projects,” University of Wisconsin-Milwaukee, Office of Research, Research Compliance, accessed March 26, 2018, <http://uwm.edu/officeofresearch/wp-content/uploads/sites/91/2015/02/uwm-effort-reporting-guidelines.pdf>.

during the reporting period on the effort reports. These are areas in which UWM has assessed and mitigated risk.

Low certification rates at UWM provide evidence of elevated risk related to effort reporting. For the 2015 reporting Period 1, only 43.4% of the statements were certified at the end of the 90-day certification window (Figure 1). That rate improved to 60.6% for the 2015 reporting Period 2, when the first automated emails were sent to certifiers and Effort Coordinators (Figure 1). The highest level reached was 78.6% for the 2016 reporting Period 2 (Figure 1).

The departure of the Compliance Manager at the end of 2016 shifted the responsibility for effort reporting to various OSP staff during 2017, until the Effort Compliance and Subaward Specialist was hired in December of that year. The lack of attention given to effort reporting was reflected in lower certification rates, with the certification rate at 90 days for the 2017 reporting Period 1 dropping to 61.8%.

Overall, 100% certification by year has not been achieved in a single calendar year since the ECRT system was implemented (Chart 1). A review of certification rates since 2007 revealed that calendar year certifications range from 91.3% to 98% (Chart 1). However, federal regulations and institutional policy require 100% compliance, thus the goal should be a 100% certification rate at the end of the 90-day certification window. Current UWM certification rates increase the risk of audit findings.

6.3.3 Control Activities

Control activities are built into UWM business processes, which affect every department and level of the university. COSO defines these activities as “the actions

established through policies and procedures that help ensure that management’s directives to mitigate risks to the achievement of objectives are carried out.”⁸⁹ Thus, it is essential to have effective policies, procedures, and guidelines to direct the actions of researchers and administrators involved with sponsored projects.

UWM’s Effort Guidelines, which are posted on the Office of Research website and in ECRT, serve as the primary direction to researchers and administrators involved in effort reporting. Although the document provides detailed information about effort reporting, it was written in 2007 and is marked as “draft.”⁹⁰ Hence, it fails to incorporate OSP’s current department name and the Uniform Guidance governance protocols. UWM needs to make it a priority to update the Effort Guidelines.

Although the roles and responsibilities section of UWM’s Effort Guidelines is accurate, it is difficult to find on the Office of Research website. The campus would benefit from posting this part of the Effort Guidelines as a separate resource on the Office of Research website.

The segregation of duties is a common element of internal control activities aimed at reducing fraud. UWM uses this concept when building business processes that require more than one person to be involved in the completion of each task. For example, effort is certified by the PI and reviewed by the Effort Coordinator. Thus, salary and effort

⁸⁹ Committee of Sponsoring Organizations of the Treadway Commission, PwC, *Internal Control – Integrated Framework Executive Summary* (May 14, 2013), 4, accessed March 15, 2018, <https://www.coso.org/Documents/990025P-Executive-Summary-final-may20.pdf>.

⁹⁰ “Guidelines for Effort Reporting: Proposing, Managing, and Certifying Effort Associated with Sponsored Projects,” University of Wisconsin-Milwaukee, Office of Research, Research Compliance, accessed March 26, 2018, <http://uwm.edu/officeofresearch/wp-content/uploads/sites/91/2015/02/uwm-effort-reporting-guidelines.pdf>.

allocations are reviewed by at least two people, and the reviews are documented in the ECRT system.

At UWM, strong internal controls exist for determining who can approve salary payments and payroll allocation changes, as well as granting access to salary information. Salary allocations are initiated, approved, and reviewed by departments and divisions. OSP does not review original payroll allocations, but the Grant Accountants in OSP monitor salary expenses charged to the grants in their portfolios. Financial responsibility for day-to-day grant management activities has been delegated to departments, divisions, and PIs, who at any time can view the budget and actual expenses for each of their grants in the Wisconsin Data Mart (WISDM) for PeopleSoft Financials system. Although UWM does not require PIs and department administrators to reconcile budgets to actual expenses on a regular basis, it is encouraged. However, reconciling grant accounts on a monthly or bi-monthly basis, but no less frequently than quarterly, would provide stronger internal controls and reduce the number of cost transfers requested more than 90 days after the transaction date.

The financial system allows salary to post to a grant after the project end date because the budgetary control date in the system is set to two months after the project end date. This is done to allow final expenses to post to grants, however, the extended end date allows all expenses to be posted to a grant for two months after the project ends, including salary that should have been allocated to other funding sources. This creates a weakness in internal controls because there is no way to differentiate between allowable grant expenses and other expenses. Another problem arises when Post-Award Grant Accountants change the budgetary control date on grants to allow payroll journal entries

to post to the ledger. If the date is not changed, entire payroll entries which often contain thousands of lines per entry, will be delayed in posting due to a couple of grants. UWM's Business & Financial Services is not patient when grant funds cause problems with payroll journal entries posting because departments need to see the payroll posted to their accounts. Therefore, OSP overrides an internal control and purposely allows the charging of salary expenses to grants that have ended, thus creating the need for cost transfers to correct the erroneous postings. UWM relies on PIs to review expenses and certify effort to ensure that only reasonable, allocable, and allowable expenses are charged to grants.⁹¹

As a control feature, all salary cost transfers related to sponsored projects are approved by OSP. UWM's guidance on cost transfers states that "all cost transfers must be submitted within 90 days of the accounting date of the initial cost allocation; transfers submitted after 90 days may not be processed."⁹² As a result, the financial system provides a warning when attempting to transfer salary that is more than 90 days past the pay date. OSP approves late transfers on a case-by-case basis and it is dependent upon the justification provided with the request. No justification is required for transfers requested within 90 days of the pay date. OSP is more flexible with cost transfers on foundation accounts, but it is trying to be more consistent.⁹³ UWM has published cost transfer guidance on the Office of Research website but the university does not have a cost transfer policy. Failure to have a cost transfer policy may increase the risk of audit findings.

⁹¹ Carla Durand, interview by author, February 25, 2018.

⁹² "Post-Award Administration," University of Wisconsin-Milwaukee, Office of Research, accessed March 26, 2018, <http://uwm.edu/officeofresearch/osp/post-award/>.

⁹³ Carla Durand, interview by author, February 25, 2018.

Strong internal controls require that all salary counted as cost sharing on sponsored projects be tracked in the financial system, but this is an area where UWM has not been consistent. Some cost sharing is tracked by departments using shadow systems and given to OSP for reporting purposes - this makes it difficult for the university to ensure the same salary is not used for cost sharing multiple times. UWM has published cost sharing guidance but the university does not have a cost sharing policy. This increases the risk of audit findings.

An area of compliance that is difficult for UWM to monitor is the National Institutes of Health (NIH) salary cap limit, as well as other salary limits imposed by sponsors. Specifically, UWM must use a manual process to monitor salary caps, and departmental and central administration staff lack a strong understanding of this concept and little training is provided. Currently, the Pre-Award Administration group maintains a list of PIs whose salaries are over the NIH salary cap, and the list is checked when setting up new awards to ensure the salary budget entered in the system is below the cap. Although the award is set up below the cap, the Post-Award Grant Accountants may not be monitoring the salary for compliance with the cap throughout the award because of a lack of time and the lack of training.⁹⁴ There have been instances in which department administrators and OSP staff have charged salary amounts above the cap to NIH grants because they have not understood this compliance issue well enough. Furthermore, the error may not be caught when effort is certified due to a lack of knowledge of how the effort and salary charges should be accounted for on the report. Therefore, proper training is essential to strengthening internal controls for salary charged to sponsored programs.

⁹⁴ Carla Durand, interview by author, February 25, 2018.

Sponsors typically require OSP to request prior approval for changes in PI or effort on a grant; thus, an internal control is required to comply with this requirement. Guidance offered by UWM on the Office of Research website recommends consulting with OSP regarding these types of changes in personnel.⁹⁵ Often, this is caught by departments when monitoring grant budgets and actual expenses, but the level of review varies by department and PI. Although communicating with OSP should be done before changes in effort occur, this does not always happen, thus causing OSP to rely on the effort certification process to identify significant reductions in effort (which are typically defined as a reduction of more than 25% time devoted to a project or an absence of more than three months) and contact the sponsor after the fact. The control is to monitor effort commitment in relation to actual effort certified on reports, but this is challenging because OSP does not have an efficient method for monitoring this control. The volume of effort reports is too high for one person to review each one. Thus, OSP relies on PIs and Effort Coordinators to notify OSP of changes in effort; if this does not occur, UWM risks charging unallowable expenses to sponsored projects.

An interview with a Grants Administrator and the Director of the UWM Shared Office for Administration of Research (SOAR) highlighted the difficulty with effort reporting. Due to normal fluctuations in how research is done, effort on individual projects can vary from month to month, creating the need to review effort on an annual basis. However, UWM uses six-month effort reporting periods, which do not coincide with grant budget cycles or the academic calendar, therefore, in order to feel confident in reviewing effort reports, these two administrators use a shadow system to track effort and

⁹⁵ "Post-Award Administration," University of Wisconsin-Milwaukee, Office of Research, accessed March 26, 2018, <http://uwm.edu/officeofresearch/osp/post-award/>.

salary allocations over an 18-month period.⁹⁶ UWM's internal control activities for this compliance area could be strengthened to reduce the risk for non-compliance with sponsor requirements.

When a PI leaves UWM his/her grants are either transferred to the new institutions or to a different PI at UWM. Since this can occur at any time during the year, an internal control needs to be in place for UWM to secure the PIs certification of effort before final reports are submitted. OSP is working with HR to include this requirement in the checklist for PIs who leave UWM.⁹⁷ Similarly, when grants end and the final reports must be submitted before the effort certification window opens, an internal control should be in place for OSP to secure certification of effort outside of the normal cycle. This is a process that needs further development at UWM.

UWM's penalties for not certifying effort or completing the CITI training are limited and could be stronger. Currently, OSP will not set up a new award or process no-cost extensions if effort statements are not certified. PIs are motivated to certify old effort reports when they are waiting for a new award to be set up so that they can begin work on the new project. Internal controls could be strengthened by increasing the penalties for not certifying effort on time.

UWM's system for tracking the completion of effort training through CITI is a manual process. The Effort Compliance and Subaward Specialist in OSP monitors the CITI website to see who has completed the training and enters the information in a UWM database. OSP staff access this information through the Compliance Tool database when

⁹⁶ Erick Gresnick and Stefanie Pinnow, interview by author, Milwaukee, February 26, 2018.

⁹⁷ Carla Durand, interview by author, February 25, 2018.

submitting proposals, setting up awards, and processing no-cost extensions. Automating this process would strengthen internal controls.

6.3.4 Information and Communication

According to COSO, information is necessary for a university to carry out its internal control responsibilities, and communication is the process of providing, sharing, and obtaining information.⁹⁸ UWM requires relevant, quality information to meet the regulatory requirements for salaries and wages charged to federal grants. It is essential for OSP to understand the regulations, system capabilities, and system of internal controls for effort reporting and to share that information with PIs, department administrators, and Effort Coordinators. Continual monitoring of federal government activities and adapting to regulatory changes is essential for the health of the research enterprise at UWM. The national dialog related to effort reporting is a good example of the complexity of the regulatory environment and the importance of having staff who are trained experts in the field of research administration who can process the information and make informed decisions aimed at improving compliance and gaining efficiency at UWM.

Good communication with internal and external customers is essential to OSP operations. Communications within UWM related to effort reporting are accomplished through the Office of Research website, which provides information about policies and procedures; automatic email notifications containing useful information sent to PIs and

⁹⁸ Committee of Sponsoring Organizations of the Treadway Commission, PwC, *Internal Control – Integrated Framework Executive Summary* (May 14, 2013), 5, accessed March 15, 2018, <https://www.coso.org/Documents/990025P-Executive-Summary-final-may20.pdf>.

Effort Coordinators at predetermined points in the effort reporting cycle; the OSP newsletter, and personal communications with OSP staff.

Another avenue for communicating with PIs and Effort Coordinators is the effort training completed through CITI. The training provides detailed information to help people understand the concept of effort and how it is applied at UWM.⁹⁹ However, a refresher course is not required, thus there is concern over retention of the knowledge.

OSP communicates to external stakeholders, information related to effort and salaries charged to federal grants through quarterly financial reporting, annual reports, and audit requests. The importance of high effort certification rates and confidence in the quality of certifications cannot be overstated when considering the audit risks associated with salaries and wages.

6.3.5 Monitoring Activities

COSO describes monitoring activities as ongoing or separate evaluations to determine whether each of the five components of internal control exist and are functioning.¹⁰⁰ The findings are evaluated against criteria established by regulators, management, or other authorities, and deficiencies are reported to the appropriate level of management or authority.¹⁰¹

⁹⁹ "Research Compliance," UW-Milwaukee, accessed March 27, 2018, <https://about.citiprogram.org/en/homepage/>.

¹⁰⁰ Committee of Sponsoring Organizations of the Treadway Commission, PwC, *Internal Control – Integrated Framework Executive Summary* (May 14, 2013), 5, accessed March 15, 2018, <https://www.coso.org/Documents/990025P-Executive-Summary-final-may20.pdf>.

¹⁰¹ *Ibid.*

UWM IT staff created reports which track effort certification rates by reporting period, department, and division. These reports were monitored by the Director of OSP and the Vice Provost for Research. The low certification rates revealed by the reports led to efforts by the previous Compliance Manager to develop an outreach and communication plan aimed at improving compliance. His efforts resulted in a higher rate of timely certifications and total certifications. Unfortunately, turnover in staff in 2017 limited OSP's ability to monitor effort reporting. The new Effort Compliance and Subaward Specialist has 50% of his time allocated to effort reporting responsibilities. He will be monitoring certification rates, answering questions, performing outreach activities, and following up with late certifications with the goal of improving compliance and the quality of certifications.

UWM does not have a host of reports to aid with the internal review and monitoring of compensation charged to grants. The development of exception reports could improve the efficiency with which the Grant Accountants, PIs, and department administrators monitor their grants, allowing them to be proactive and improve compliance.

6.4 Alternatives to Effort Reporting

As previously discussed, the Uniform Guidance removed the prescriptive examples of acceptable methods for documenting salaries and wages charged to federal grants, and universities are now free to develop their own methodology based on a strong system of internal controls that provides assurance that the salary charged accurately reflects the work performed. Although certification is not required, 2 CFR

200.430(h)(8)(i) requires an after-the-fact review of payroll charges compared to budget estimates.¹⁰² Universities are required to have a system of internal controls that ensures the salaries and wages charged to federal awards is compliant with university policies and procedures, the supporting documents are incorporated into the official records, and the records reflect the total activity for which the employee is compensated.¹⁰³

The alternatives to effort reporting span a continuum bounded by the FDP PCS on one end and by systems that rely solely on internal controls with no additional payroll or project-based review on the other end. Between these two methodologies lies a range of options that universities are developing based on risk assessments and their internal control systems. Every university sets its own tolerance for risk. At UWM, the tolerance for risk is low, thus the University will consider implementing an alternative methodology if it has the potential to improve compliance and limit audit risks without increasing administrative burden or costs.

6.4.1 FDP Payroll Certification System

As previously discussed, proposed by the FDP in 2011 and piloted by four universities, the PCS eliminated the concept of effort which can be difficult to measure and is confusing to researchers and administrators who are required to certify reports. The rationale for payroll certification is that salaries and wages charged to federal grants

¹⁰² Office of Management and Budget, *2 CFR 200 Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Washington, DC: National Council of University Research Administrators, 2015), 73.

¹⁰³ *Ibid.*, 70-75.

should be reviewed for reasonableness in relation to the work performed.¹⁰⁴ Under this methodology, at the end of the budget year for each project, PIs are required to certify a report which displays all of the salaries and wages charged to the grant during the reporting period.¹⁰⁵

The PCS complies with §200.430(h)(8)(i) *Standards for Documentation of Personnel Expenses* in the Uniform Guidance, which requires salaries and wages to be based on records that accurately reflect the work performed and an after-the-fact review of the compensation supports the estimated charges were reasonable in relation to the work performed.¹⁰⁶

The benefits of payroll certification could include a reduction in the number of reports generated for certification each year and improved compliance due to better quality certifications done on a timely basis. Each of the four universities that piloted this system experienced a significant reduction in the total number of reports that had to be certified each year (Chart 3).¹⁰⁷ Under this methodology, annual payroll certification would become part of the annual reporting requirements. PIs would be required to review the salaries and wages charged to a grant for the same period for which they are preparing

¹⁰⁴ Federal Demonstration Partnership, *Payroll Certifications: A Proposed Alternative to Effort Reporting* (2011), 6, accessed February 1, 2018, http://sites.nationalacademies.org/cs/groups/pgasite/documents/webpage/pga_055994.pdf.

¹⁰⁵ Federal Demonstration Partnership, *Payroll Certifications: A Proposed Alternative to Effort Reporting* (2011), 9, accessed February 1, 2018, http://sites.nationalacademies.org/cs/groups/pgasite/documents/webpage/pga_055994.pdf.

¹⁰⁶ Office of Management and Budget, *2 CFR 200 Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Washington, DC: National Council of University Research Administrators, 2015), 73-75.

¹⁰⁷ "Alternatives to Effort Certification/Reporting," Arizona State University, last modified March 19, 2018, accessed March 26, 2018, <https://researchadmin.asu.edu/cohort/effort>.

the annual technical report. Thus, this certification period makes sense to PIs who are able to focus on reasonableness in relation to the work performed.

Chart 3. FDP Pilot Institutions Reduction in Administrative Burden Following Payroll Certification.

University	Number of Individual Effort Reports Certified per Year	Number of Payroll Confirmed by Individual Projects per Year
George Mason University	2,700	700
Michigan Technological University	6,700	700
University of California, Irvine	10,500	1,400
University of California, Riverside	5,058	752

Source: Data from “Alternatives to Effort Certification/Reporting,” Arizona State University, last modified March 19, 2018, accessed March 26, 2018, <https://researchadmin.asu.edu/cohort/effort>.

However, one concern with this system is acceptance by the audit community. The NSF OIG recommended the use of monthly or bimonthly fund reconciliations so that salary charges are reviewed regularly since certification is less frequent than under effort reporting.¹⁰⁸ Furthermore, the NSF OIG recommended the inclusion of the total allocation of salary for each person on the payroll certification reports so that PIs can see the relation of salary charged to a specific grant to the total salary.¹⁰⁹ Unfortunately, this feels like effort reporting.

¹⁰⁸ Mark Bell, Office of Inspector General, Office of Audits, *Federal Demonstration Partnership’s Pilot Payroll Certification Program – Compliance with 2 CFR 200* (June 21, 2017), accessed March 27, 2017, https://www.nsf.gov/oig/pdf/Pilot_Program.pdf.

¹⁰⁹ Ibid.

If alternative certification is used at UWM, the expectation is that the total number of reports required to be certified in a year would decrease by one half, because PIs would be required to certify one payroll report per project, per year. In contrast, UWM's current reporting system requires PIs to certify individual effort reports twice per year for themselves, and "for all graduate students, postdoctoral trainees, and non-PI classified staff who work on all of his or her projects."¹¹⁰ Although most UWM PIs would experience a decrease in reporting requirements, there are a few PIs who would be required to certify more reports under a project-based alternative because they consistently have multiple active projects over the course of a year. Irrespective of the number of reports required to be certified, it is believed that through alternative certification researchers would better understand the concept and timing of certifications, thus gaining goodwill for OSP and the Office of Research at UWM.

6.4.2 Sole Reliance on Internal Controls – No Certification

On the other end of the spectrum is a methodology that relies solely on internal controls with no additional payroll or project-based review.¹¹¹ Under this methodology, universities design a system of internal controls for compensation charged to federal grants that is integrated with other processes and procedures but includes specific steps to

¹¹⁰ "Guidelines for Effort Reporting: Proposing, Managing, and Certifying Effort Associated with Sponsored Projects," University of Wisconsin-Milwaukee, Office of Research, Research Compliance, accessed March 26, 2018, <http://uwm.edu/officeofresearch/wp-content/uploads/sites/91/2015/02/uwm-effort-reporting-guidelines.pdf>.

¹¹¹ "Model Policy Development to Reduce Administrative and Faculty Burden University Cohort Information," Arizona State University, last modified March 22, 2018, accessed March 26, 2018, <https://researchadmin.asu.edu/cohort/model>.

ensure regulatory requirements in the Uniform Guidance for compensation and internal controls are met.¹¹²

It is clear from the *Standards for Documentation of Personnel Costs* that salaries and wages charged to federal grants must be reviewed after the work is performed. Although the regulations do not specify when the review must occur, universities should ensure it is done before final reports are due in order to avoid the possibility of reporting unallowable expenses.¹¹³ Furthermore, the regulations do not require a certification, thus a signed report is not required. Although the Uniform Guidance is not prescriptive and offers universities flexibility in designing systems that best meet their needs, it is essential to develop strong internal controls that will convince auditors that universities are doing enough to meet the regulatory requirements. Universities should have the administrative infrastructure in place to establish effective policies and procedures and an environment that requires adherence to them.

This methodology is the biggest step away from effort reporting. It requires institutions to design strong internal controls and be disciplined in their monitoring and evaluation activities, so they can be quick to respond when changes are necessary. It remains to be seen how the audit community will respond to universities that implement this methodology.

¹¹² Ibid.

¹¹³ Office of Management and Budget, *2 CFR 200 Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, Section 430* (Washington, DC: National Council of University Research Administrators, 2015), 70-75.

Benefits of this methodology include the use of existing staff and processes. There is no need to purchase or build a software system to generate reports for certification purposes. Administrative burden may be reduced, however, increased responsibilities for salary reviews and fund reconciliations may shift administrative tasks to different people.

As part of a joint effort, the University of Texas System schools developed and transitioned to new processes based solely on internal controls effective September 1, 2016.¹¹⁴ Co-leaders of the NCURA Cohort, the Assistant Vice President for Research at the University of Texas at Arlington, and the Associate Provost for Research Support at The New School, worked together on this transition.

Stanford University is an example of a Top Ten research university that has never done traditional effort reporting.¹¹⁵ Until being eliminated in fiscal year 2017, the university required annual payroll distribution certification.¹¹⁶ Stanford relies on policies and procedures built around the monthly review and quarterly certification of expenditures charged to grants and counted as cost sharing commitments.¹¹⁷ The university has invested in a software system (eCertification) that displays all expenses charged to sponsored projects, not just payroll. The eCertification system “supports a single consolidated review and certification process for managing sponsored project

¹¹⁴ Lisa Moseley, Jeremy Forsberg, and David Ngo, interview by author, February 5, 2018.

¹¹⁵ Ibid.

¹¹⁶ “Annual Payroll Distribution Certification,” Stanford University, DoResearch, accessed March 26, 2018, <https://doresearch.stanford.edu/research-scholarship/annual-payroll-distribution-certification>.

¹¹⁷ “Monthly Review and Quarterly PI Review and Certification,” Stanford University, DoResearch, last modified March 7, 2018, accessed February 3, 2018, <https://doresearch.stanford.edu/research-administration/proposal-and-award-lifecycle/project-management/monthly-review-and-quarterly-pi-review-and-certification-process>.

expenditures and cost sharing commitments.”¹¹⁸ On a quarterly basis, Research Administrators are required to review the expenses and document the review in the system. The next step is for PIs to “confirm that all expenditures charged to an account are allowable, allocable to the project, and reasonable.”¹¹⁹ The university provides detailed instructions for conducting the review of monthly expenditures and quarterly PI certifications. Stanford’s electronic system provides many benefits and strengthens internal controls by securing documentation that all expenses related to grants are appropriate. This would work at UWM if the system of internal control was strengthened, leadership at all levels across the university supported and enforced compliance with institutional policy, and adequate resources were committed to planning and implementing a new methodology.

6.5 Electronic Research Administration System Capabilities

Huron Consulting Group’s ECRT software system has been retooled to accommodate project-based certification and other methodologies in addition to traditional effort reporting.¹²⁰ UWM and UW-Madison implemented ECRT in 2007 and have continued to update the system when Huron releases new versions. UW-Madison maintains the system and provides technical support for both universities. UWM has committed some IT resources to support the ECRT system and OSP staff who are

¹¹⁸ Ibid.

¹¹⁹ Ibid.

¹²⁰ “Employee Compensation Compliance (Formerly ECRT),” Huron, accessed March 27, 2018, <https://www.huronconsultinggroup.com/expertise/technology/ecrt>.

responsible for effort reporting. Although the system can be configured for other methodologies, UWM cannot do this on its own because UW-Madison is in the driver's seat with this system.¹²¹ Therefore, a change would require both universities to agree on a new methodology and commit the resources necessary for conversion and implementation on each campus. UW-Madison is just beginning to discuss alternative methodologies on its campus.¹²²

Because UWM already has an electronic system which offers work flow, automatic notifications, integration with the HR and Finance systems, and dashboards for users, it would not be feasible to implement a new software system. The cost to purchase and support a new system would outweigh the benefits at the current time.

¹²¹ Mark Sweet, interview by author, February 5, 2018.

¹²² Kim Moreland, interview by author, February 16, 2018.

Chapter 7.

Recommendations and Conclusion

Based on the analysis of UWM's current effort reporting system, a review of the current regulatory environment, and an investigation of alternatives to effort reporting, two strategies could help UWM improve compliance in documenting salaries and wages charged to federal grants:

Recommendation 1: Strengthen internal controls to improve the timeliness and quality of certifications to achieve a 100% certification rate by the end of the 90-day certification window.

- Map to the COSO Framework all internal controls related to salaries and wages charged to federal grants to ensure completeness and relevance.
- Update all effort-related policies, procedures, guidelines, website content, and training materials to align with the strengthened internal controls.
- Report periodically the effectiveness of UWM's internal controls, processes and procedures, and prioritize improvement efforts as part of normal operations.
- Conduct routine training of PIs, department administrators, and OSP staff as part of the overall development program.
- Strive for stability in the delegation of duties for effort reporting in the organizational structure of OSP.

Recommendation 2: Conduct a feasibility study to determine the viability of transitioning to a project-based payroll certification system as a way to optimize the cost of compliance.

- Monitor the national dialog, NCURA Cohort activities, and talk with other universities that use a form of payroll certification.
- Engage in discussions with UW-Madison as RSP begins to examine alternatives to effort reporting, considering the system requirements and constraints given UWM's dependency on UW-Madison for the ECRT system.
- Engage with administrators and faculty at UWM to assess the interest and support for a payroll certification system.

7.1 Strengthen Internal Controls

Recommendation 3: Complete the mapping of UWM's internal controls to the COSO Framework.

Leveraging the work initiated in this project, UWM should complete the mapping of its internal controls for effort reporting to the COSO Framework. The focus on internal controls in the Uniform Guidance has created opportunities for universities to map their internal controls to the COSO Framework to ensure compliance with the regulations. This is particularly important for internal controls related to salaries and wages charged to federal grants because these costs are closely scrutinized by auditors.

Recommendation 4: Update effort-related policies, procedures, guidelines, website content, and training materials.

Currently effort related policies, procedures, guidelines, website content, and training materials are out of date or incomplete. For example, UWM's Effort Guidelines have not been updated since 2007, are marked "draft," and do not use the current department name which creates confusion. Content fails to incorporate the Uniform Guidance governance protocols. Furthermore, the roles and responsibilities related to effort reporting are not clearly shown on the Office of Research website to make essential information easier to find.

Recommendation 5: Evaluate periodically the effectiveness of UWM's effort reporting processes and procedures.

The analysis in this area uncovered inconsistencies and weaknesses in UWM's effort reporting processes. Using the work done for this project as a starting point, UWM could evaluate periodically the effectiveness of its processes and procedures. Any improvements could be addressed in collaboration with university partners to build consistency in areas such as the process for certifying effort outside the normal reporting cycle.

Recommendation 6: Develop a core curriculum training program for UWM PIs and research administration staff.

Requests from researchers, department administrators, and OSP staff has established the need for routine training beyond the required CITI course. Small group sessions would allow for interacting with the audience and provide opportunities for participants to ask questions for clarification. Refresher courses on effort reporting for PIs and Effort Coordinators to ensure continued understanding of the concept and importance of complying with regulations would be a simple and practical approach. Using the work

done for this project as a starting point, UWM should develop a core curriculum to address this need.

Recommendation 7: Maintain the current number of UWM research administrators who work with effort reporting.

It should be emphasized that stability in the organizational structure of OSP, with one position dedicated to effort reporting as a primary duty, is essential to ensuring strong internal controls consistent with a top tier research university. Since the departure of the OSP Compliance Manager in December 2016, responsibility for effort reporting has been distributed among several positions. In early 2017, one of the Grant Accountants in OSP was promoted to the new position of Effort Compliance and Subaward Specialist; fifty percent of this position is allocated to effort reporting. Fostering a culture of compliance across the university is essential for UWM to reduce the risk for audit findings and settlements.

7.2 Conduct a Feasibility Study

Recommendation 8: Conduct a feasibility study to determine if alternative methods of effort reporting will work at UWM.

Effort reporting has its challenges and is an administrative burden for UWM. However, the regulations require an after the fact review of compensation to document the salaries and wages charged to federal grants. Failure to comply could affect the status of UWM as a top tier research university. Therefore, UWM must have a robust and cost-effective process in place to meet the regulatory requirements.

Alternatives to effort reporting, such as project-based payroll certification or a system relying solely on internal controls, are attractive to UWM. However, transitioning

to a system that relies solely on internal controls would be a significant challenge for UWM, given the current internal control system and staffing turnover, as well as the uncertain audit environment. It is prudent for UWM to continue monitoring the national dialog, NCURA Cohort activities, as well as make a concerted effort to talk with other universities that use or are transitioning to project-based payroll certification for the purpose of learning how other universities have reduced administrative burden.

7.3 ECRT System

Recommendation 9: Hold discussions with UW-Madison about alternatives to effort reporting and the use of ECRT.

UWM should engage in discussions with UW-Madison regarding alternatives to effort reporting. The ECRT system could be used for project-based payroll certification, however, UWM cannot do it alone because UW-Madison has control over the system. Synergies could be gained by working together to implement a new methodology.

Discussions with UWM researchers, administrators, and leaders focused on the goals of reducing administrative burden, gaining efficiencies, and improving compliance would help determine the level of support for changing methodologies. It would be essential for campus partners to understand how the new system would benefit them, especially during this time when resources are so limited.

7.4 Summary of Audit Risks

Recommendation 10: Strengthen UWM's policies, procedures, and internal controls.

The analysis for this project also identified areas of where UWM's risk of audit findings is elevated due to a lack of strong internal controls:

- Effort certification rates at the end of the 90-day certification window are low and the percentage of total reports certified is less than 100%.
- Uncertified salary charged to federal grants does not meet the regulatory requirements, thus it is unallowable.
- OSP overrides internal controls to allow erroneous payroll expenses to post after a grant ends.
- UWM does not have a strong internal control system for identifying significant reductions in effort that require prior approval by the sponsor – monitoring effort commitments and certified effort.

Recommendation 11: Write and disseminate a cost sharing policy and a cost transfer policy.

UWM currently does not have a cost sharing policy, nor a cost transfer policy, but the development of both policies is necessary to provide good stewardship of federal funding. These areas should be addressed as part of OSP's efforts to improve compliance and achieve excellence in research.

7.5 Conclusion

UWM is committed to complying with the federal laws, regulations, and agency-specific requirements for its federal awards to ensure good stewardship of taxpayer dollars. This is accomplished through a strong system of internal control, which can be enhanced by fostering a culture of compliance and mindset of continuous improvement

across campus. UWM can improve compliance in documenting salaries and wages charged to federal grants by committing the resources necessary to evaluate and strengthen internal controls. Additionally, implementing a project-based payroll certification system in place of traditional effort reporting may help to optimize the costs of compliance and minimize audit risks.

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