

12-1-2016

## Corporatized Higher Education: A Quantitative Study Examining Faculty Motivation Using Self-Determination Theory

Aaron Dale Brown  
*University of Nevada, Las Vegas*

Follow this and additional works at: <https://digitalscholarship.unlv.edu/thesesdissertations>



Part of the [Education Commons](#), and the [Public Administration Commons](#)

---

### Repository Citation

Brown, Aaron Dale, "Corporatized Higher Education: A Quantitative Study Examining Faculty Motivation Using Self-Determination Theory" (2016). *UNLV Theses, Dissertations, Professional Papers, and Capstones*. 2853.

<http://dx.doi.org/10.34917/10083127>

This Dissertation is protected by copyright and/or related rights. It has been brought to you by Digital Scholarship@UNLV with permission from the rights-holder(s). You are free to use this Dissertation in any way that is permitted by the copyright and related rights legislation that applies to your use. For other uses you need to obtain permission from the rights-holder(s) directly, unless additional rights are indicated by a Creative Commons license in the record and/or on the work itself.

This Dissertation has been accepted for inclusion in UNLV Theses, Dissertations, Professional Papers, and Capstones by an authorized administrator of Digital Scholarship@UNLV. For more information, please contact [digitalscholarship@unlv.edu](mailto:digitalscholarship@unlv.edu).

**CORPORATIZED HIGHER EDUCATION: A QUANTITATIVE STUDY**  
**EXAMINING FACULTY MOTIVATION USING**  
**SELF-DETERMINATION THEORY**

By

Aaron D. Brown

Bachelor of Arts - Psychology  
Eastern Washington University  
2001

Master of Arts - Organizational Psychology  
Antioch University, Seattle  
2004

A dissertation submitted in partial fulfillment  
of the requirements for the

Doctor of Philosophy - Public Affairs

School of Public Policy and Leadership  
Greenspun College of Urban Affairs  
The Graduate College

University of Nevada, Las Vegas  
December 2016

Copyright by Aaron Brown, 2016

All Rights Reserved

**Dissertation Approval**

The Graduate College  
The University of Nevada, Las Vegas

November 28, 2016

This dissertation prepared by

Aaron D. Brown

entitled

Corporatized Higher Education: A Quantitative Study Examining Faculty Motivation  
Using Self-Determination Theory

is approved in partial fulfillment of the requirements for the degree of

Doctor of Philosophy - Public Affairs  
School of Public Policy and Leadership

Jessica Word, Ph.D.  
*Examination Committee Chair*

Kathryn Hausbeck Korgan, Ph.D.  
*Graduate College Interim Dean*

Christopher Stream, Ph.D.  
*Examination Committee Member*

Helen Neill, Ph.D.  
*Examination Committee Member*

Gwen Marchand, Ph.D.  
*Graduate College Faculty Representative*

## **Abstract**

The intent of this research is to offer a quantitative analysis of self-determined faculty motivation within the current corporate model of higher education across public and private research universities. With such a heightened integration of accountability structures, external reward systems, and the ongoing drive for more money and institutional prestige, this study examines faculty attitudes towards their work and the institution using Deci and Ryan's (1985) self-determination theory (SDT).

Under the corporatized model of higher education, a gap is found in the literature that explores the role of SDT's three innate needs (i.e., autonomy, competency, and relatedness) and their effect upon tenured or tenured-track academic faculty across public and nonprofit research institutions. This dissertation explores the following four questions: 1) what differences, if any, exist in the fulfillment of basic psychological needs and experiences of corporatization between the public and nonprofit sectors academic faculty; 2) how does corporatization directly impact job involvement and intentions to leave; 3) what role do the three basic psychological needs of self-determination theory play in faculty job involvement and turnover intention; and 4) does self-determined motivation mediate the impact of corporatization.

A faculty survey is applied as the research tool with the purpose of accessing the appropriate data to answer the four research questions. Three basic innate needs of self-determination theory and the construct referred to as corporatization are used as the predictor variables. In order to determine the impact of corporatization across the sectors and the role of self-determined motivation, job involvement and intentions to leave are used as the criterion variables. Data was collected from four private nonprofit and four public four-year research institutions across the United States.

## Acknowledgments

Numerous academic faculty, colleagues, friends, and family have contributed to the completion of this project and whose help I am most grateful. These individuals believed in me and pushed me throughout the course of achieving this educational goal.

Beginning with my dissertation chair, Dr. Jessica Word whose guidance, calming presence, and words of wisdom, have kept me on the steady path towards completion. Thank you for challenging my scholarly abilities and providing opportunities for learning and growth. A special thanks to my dissertation committee members, Dr. Chris Stream, Dr. Helen Neill, and Dr. Gwen Marchand, for providing critical insights and depth to the overall project. I will be forever grateful to each of you.

I am thankful to a number of faculty and colleagues who were instrumental in assisting me with the decision to pursue a Ph.D. Specifically, Dr. Al Thompson, Dr. Colin Ormsby, Dr. David Swanson, Dr. Gabe Gallardo, and Dr. Jim Perez, my thanks to each of you for inspiring me to take the risk and to pursue this intellectual challenge. Dr. Lee Bernick, who more fully opened my eyes to the world of public affairs and mentored me during the early stages of the program. Further thanks should be given to the UNLV ASC advising team, Dean McDonough, and my dissertation chat buddies, Beth Gersten, Deborah Cheek, and Valarie Burke. Your faith, inspiration, and ongoing support were pillars of strength throughout this project.

My wife and children, especially, provided the love and sustenance that enabled me to push through the difficult times. To my mom for help with the kids and constant encouragement. Finally, to my close friend Gary, I am grateful for the many intellectually stimulating conversations around the topic of motivation.

## **Dedication**

This dissertation is dedicated to Renie, Olivia, and Owen. To my wife, your trust, sacrifice, and continual support were without question, the most essential elements necessary to accomplish this educational goal. To my children, I am so grateful to both of you for being my unceasing cheerleaders and sources of strength. You inspired me to dream big! We did it!

# Table of Contents

Abstract.....	iii
Acknowledgments.....	iv
Dedication.....	v
List of Tables.....	viii
List of Figures.....	ix
Chapter 1: Introduction.....	1
Statement of Problem.....	1
Purpose of the Study.....	7
Overview of Theoretical Framework.....	8
Research Questions.....	9
Significance of the Study.....	9
Outline of the Study.....	11
Chapter 2: Literature Review.....	12
Introduction.....	12
Classical Theories of Human Motivation.....	13
Theories of Work Motivation.....	21
Theoretical Framework.....	29
Self-Determination and Work Motivation Studies.....	37
Faculty Motivation.....	40
Public and Nonprofit Higher Education.....	44
Faculty Motivation Research Significance.....	48
Contribution to Self-Determination Theory.....	48
Methodological Approach.....	49
Chapter 3: Methodology.....	51
Inferential Research Questions.....	51
Hypotheses.....	51
Research Design.....	54
Instrument Design.....	57
Data Collection.....	66
Statistical Analysis.....	66



Model Generation .....	74
Summary .....	80
Chapter 4: Results .....	81
Characteristics of Respondents .....	81
Model Testing .....	84
SEM Model Hypothesis Testing .....	91
Chapter 5: Discussion .....	100
Review of Significant Findings.....	100
Limitations and Suggestions for Future Research .....	102
Conclusion .....	107
Appendix A.....	110
Appendix B .....	111
Appendix C .....	130
Appendix D.....	134
References.....	143
Curriculum Vitae .....	170

## **List of Tables**

Table 3.1. Development of Corporatization Measurement Scale .....	61
Table 3.2. Test of Reliability across Scales .....	66
Table 3.3. Descriptive Statistics for Basic Psychological Needs at Work Scale .....	71
Table 3.4. Descriptive Statistics for Corporatization.....	72
Table 3.5. Descriptive Statistics for Job Involvement and Intentions to Leave .....	73
Table 3.6. Pattern Matrix Results for Initial Measurement Model (45-Items) .....	77
Table 3.7. Best Pattern Matrix Results for EFA (17-Items) .....	79
Table 3.8. Initial Full Model EFA Compared with Best-Fitting Model .....	79
Table 4.1. Demographic Characteristics of Faculty by Institutional Type .....	83
Table 4.2. Metric Invariance Test for Groups.....	88
Table 4.3. Summary of Goodness of Fit Statistics for CFA and SEM Models .....	91

## List of Figures

Figure 2.1. Self-Determination Continuum of Motivational Typologies .....	34
Figure 3.1. Conceptual Model for Institutional Type Group Differences .....	52
Figure 3.2. Conceptual Model for Corporatization’s Impact on Dependent Variables .....	53
Figure 3.3. Conceptual Model for SDT’s Impact on Dependent Variables.....	53
Figure 3.4. Conceptual Model for Proposed Mediation Effect.....	54
Figure 3.5. Process of Statistical Analysis.....	67
Figure 4.1. Structural Equation Model with Direct Effects of Corporatization and SDT .....	93
Figure 4.2. Proposed Model for Main Effects of Corporatization.....	96
Figure 4.3. Proposed Model for Main Effects of SDT’s Basic Needs.....	97
Figure D.1. Results from Full 45-Item Multivariate Model .....	134
Figure D.2. Results from a 17-Item Multivariate Model .....	135
Figure D.3. Model Testing of Corporatization Scale.....	136
Figure D.4. Corporatization Model 3 Testing.....	137
Figure D.5. Self-Determination Full-Scale Model Testing .....	138
Figure D.6. Self-Determination Best-Fitting Model Testing.....	139
Figure D.7. Proposed Effects of Corporatization.....	140
Figure D.8. Direct Effects of SDT’s Basic Psychological Needs.....	141
Figure D.9. SDT Mediating Effects of Corporatization (H <sub>5</sub> ).....	142

# **Chapter 1: Introduction**

## **Statement of Problem**

Over the last two centuries, U.S. higher education has undergone extraordinary structural changes that have fundamentally transformed the working conditions for academic faculty (Bronfenbrenner & Juravich, 2001; Fink, 2008; Lucas, 2006; Schuster & Finkelstein, 2006; Schrecker, 2010; Steck, 2003; Veblen, 1918). These fundamental changes, often collectively known by scholars as the corporatization of higher education, are the product of corporate philosophies assimilated into the academe (see Feeney & Welch, 2012; Goldstene, 2015; Lerner, 2008; Levin, 2009; Lucas, 2006; Magolda, 2016). The corporatized university is characterized by a variety of factors including administratively led educational missions, reward systems that encourage the erosion of academic freedom, and commercially minded governing boards that make market driven decisions rooted in the rules of the modern business world (Steck, 2003). This lies in stark contrast with the historical rhetoric of research universities espousing a commitment to academic freedom, shared governance, and learning for the purpose of intellectual curiosity and the greater good of society. A commitment that helps ensure the credibility of the intellectual knowledge that is produced. Yet, as currently constructed, these universities are especially constrained by mechanistic imperatives that may undercut academic faculty autonomy, lessen their sense of competency, and invoke feelings of isolation resulting in diminished productivity and overall well-being.

Despite the fact that a relationship between universities and the corporate world have long existed (Lerner, 2008; Lucas, 2006; Steck, 2003; Veblen, 1918), the current manifestation

of corporatized universities can be traced back to a variety of substantive factors emerging from the literature directly impacting the working environments and expectations of academic faculty. For instance, across public and private nonprofit universities we see mission and value changes (Magolda, 2016; Rosenzweig, 2001); public mandates to justify the cost-benefit of higher education (Bess, 1998; Fink, 2008); an emphasis placed on utilization of corporate strategic planning models (Barrow, 2010; Rowley, Lujan, & Dolence, 1997); the erosion of tenure and academic freedom (Goldstene, 2015; Lerner, 2008); and constrained reward systems that value prestige at the exclusion of “teaching and service” (Boyer, 1990, p. xii; Steck, 2003). These factors have been both a product and consequence of the corporatization of higher education.

### **Higher Education Mission Change**

From the beginning, the mission of higher education has been understood to serve both the private needs of the individual (e.g., monetarily) and public needs of the community (e.g., by furthering a democratic society) (Carnoy, Froumin, Loyalka, & Tilak, 2014; Levin, 1987). However, incremental changes have brought the business world and the academe closer and closer together profoundly altering the balance between these two missions and subsequently the role of academic faculty (Gumport, 1997; Labaree, 1997; Schrecker, 2010; Schuster & Finkelstein, 2006). Hackett (2014) describes the modern university in America as, “taking shape under the regime of academic capitalism” a place void of intellectual meaning and “open inquiry” (p. 637). Instead, concerned scholars see the new American university as a multi-billion dollar enterprise modeling the corporate hierarchy and profit maximization practices of modern day corporations.

Labaree (1997) in *Public Goods, Private Goods: The American Struggle over Educational Goals* identified the chief concern undermining the U.S. educational system as a “growing dominance of the social mobility goal” (p.73). He describes the mission of “social

mobility” as a private consumption that is intended to solely benefit the individual (p.39). It is in sharp contrast to the more altruistic community focused goal of “democratic equality” (p.39).

Labaree (1997) defines the mission of democratic equality as seeking to produce an active and engaged citizenship; preparing the youth of the next generation to take on the full responsibility of civic engagement that perpetuates a thriving democratic society. A value system that is derived from a more intrinsically based motivation and the fulfillment of lesser hedonistic needs. According to Steck (2003), “. . . the society utility of the university has, in the age of corporatization, been turned not to serving society in general or to meeting some broad democratic mission but to working with if not bending to corporate interests” (p.79).

The narrow focus of higher education’s current private goods mentality has been embraced by the public. As other scholars have noted, an incremental transformation has altered the public perception that higher education is no longer a “social institution” but rather a corporate organization (Gumport, 1997, p. 68; Steck, 2003). Gumport’s (1997) work highlights the “tension between” these two worldviews noting “. . . from the perspective of higher education as an industry, public colleges and universities are seen increasingly as a sector of the economy; as with firms or businesses, the root metaphor is a corporate model of production” (p.71). Conversely, when viewed from a democratic equality reference, “. . . public colleges and universities . . . preserve a broader range of social functions that include such essential educational legacies as the cultivation of citizenship, the preservation of cultural heritage(s), and the formation of individual character and habits of mind” (Gumport, 1997, p.71).

### **Infusion of External Determinants**

As a result of this change in mission, the cost of higher education has mostly shifted to the individual (Schrecker, 2010) and faculty who are mandated to undertake amplified consumer demands. The belief that education is now seen as mostly a private good can be evidenced by

diminished state appropriations from legislators that results in an overemphasis on student loans. For instance, since the 1980's the cost of attendance at public and private institutions has risen, states have significantly reduced per-student funding, and student loan debt has increased considerably (Schrecker, 2010). According to a report by the State Higher Education Finance Study (see 2014 SHEF report), public full-time equivalent enrollment appropriations from the state went from \$8,615 per student in 1989 to \$6,552 per student in 2014 (reported in constant dollars). Furthermore, the U.S. Department of Education's National Center for Education Statistics (see NCES 2013-2014 Report) lists the average annual costs at four-year institutions for undergraduate tuition, room and board rising steeply from \$10,820 in 2000-2001 to \$21,003 in 2013-2014. NCES also reports the 2013-2014 national average for attending private nonprofit institutions at an alarming \$35,987 annually. With the rise in tuition, students are encouraged to take out more loans with an average loan debt approaching \$30,000 (see report produced by Institute for College Access & Success, *Student Debt and the Class of 2014*). The excessive cost at four-year universities and potentially life-altering student debt places an additional burden on faculty to produce degrees that lead to a high paying job. Under a corporate business model, students are now seen as customers and faculty as proprietors of a private good (O'Malley, 2012).

These extraordinary financial costs have triggered a rational examination about the utility of higher education. Bess (1998) in *Contract Systems, Bureaucracies, and Faculty Motivation: The Probable Effects of No-Tenure Policy*, describes the "increasing scrutiny" from key stakeholders who are upset with the cost-benefit of their educational experience (p. 1). "The finger-pointing from the outside overwhelmingly is directed at faculty who are allegedly underworked and overpaid. So vociferous have the external critics become that drastic measures

to improve institutional efficiency are now being considered by state systems, boards of trustees, and top level administrators” (p. 1).

### **Embracing of Corporate Strategic Planning Models**

The change in mission, fiscal pressures, and questioning of the utility of higher education has encouraged university presidents and other executive administrators to embrace strategic planning strategies that give rise to new enrollment management and fundraising campaigns. According to Barrow (2010), the regulating factor of a capitalistic education system is the introduction of strategic planning which brings with it a fixation towards “. . . micro-management and financial controls that not only stifles real creativity, independence, and entrepreneurialism in large organizations, but overloads the management system with decision-making bottlenecks and an endless quest for more information through centralized data systems, official forms, and multiple signature authorities” (p. 323). Higher education strategic management strategies have included: 1) increasing student tuition and becoming more selective; 2) hiring consultants and grant writers to pursue federally funded grants; 3) using excess funds to add more executive administration to the exclusion of tenured academic faculty; 4) utilizing cheaper and less committed labor to teach lower-level courses (e.g., graduate students and contingent faculty); 5) intensifying the pressure and incentives for academic faculty to obtain corporate sponsored research; and 6) turning to deans, chairs, directors, and other academic faculty as extensions of burgeoning foundation offices, seeking large private donations (Boyer, 1990; Steck, 2003).

### **Prestige and the Rankings Game**

The introduction of for-profit institutions has increased the competition across the sectors of higher education. In fact, many scholars identify the recent for-profit emergence as a key driver in institutions continued embrace of corporate models (Adams, 2014; Beaver, 2009;



O'Malley, 2012; Schrecker, 2010). One way private nonprofit and public institutions have attempted to distinguish themselves is through prestige and world rankings.

To be a major player in the rankings game, research universities have sought to engage in a race for prestige at the expense of undergraduate teaching and service (Boyer, 1990), by focusing on building programs that meet market demands (Schrecker, 2010), and creating a “star system” for recruitment and hiring of ballyhooed faculty (Lerner, 2008, p.219). The race for prestige causes a “crisis of purpose” for higher education faculty (Boyer, 1990, p.55). Instead of working as the driving force behind educational missions, corporatized faculty are action levers for fiscal affairs. Research is often seen as the catalyst for generating new fiscal streams and thus becomes overvalued by administrators at the expense of quality of teaching. Schrecker (2010) opines, “A faculty that won grants, developed graduate programs, and published extensively would, it was believed add to the school’s prestige and thus make it a hotter commodity in the academic marketplace” (p.188).

### **The Transformation of the Professorate**

Finally, the most salient problem within corporatized higher education are the changes to the professorate role and subsequent undermining of academic faculty autonomy (see Fink, 2008; Goldstene, 2015; O'Malley, 2012; Schrecker, 2010; Steck, 2003). There is a growing practice of hiring “just-in-time”, “disposable”, and “low-cost” contingent labor and the growing tendency to question tenure’s value to modern institutions based on corporate employee comparisons (Steck, 2003, p. 78). Goldstene (2015) identifies the price of corporatization in *Designed to Fail: Adjunct Faculty and the Fight for Education*, reporting the rapid increase of hiring contingent faculty at the cost of tenured or tenured-track faculty and the implications this has on the quality of education and the working environment for faculty.

As a majority of university professors lose autonomy in the classroom and become information delivery systems under greater administrative control, and more likely to supply employees “useful” to the corporate order—the very antithesis of Enlightenment-based teaching—their influence is diluted, along with the disruptive possibilities of education itself. (Goldstene, 2015)

Similarly, O’Malley (2012) calls attention to the problem with corporatization as causing academic faculty across all sectors of higher education to serve “. . . at the will of their employers” (p.22) at the expense of shared governance and academic freedom.

This transformation of the professorate occurs despite research across public and nonprofit sectors demonstrating employees are typically happiest, most productive, and connected to their organization while working within environments that offer the fulfillment of what Deci and Ryan (1985) describe as the innate psychological needs of autonomy, competency, and relatedness (Baard, 2002). Conversely, research shows that an overemphasis on external incentives can crowd-out intrinsic motivation (Deci, 1975), is connected to intolerance (Duriez, Vansteenkiste, Soenens, & De Witte, 2007; Roets, Van Heil, & Cornelis, 2006) and antisocial tendencies (Kasser & Ryan, 1993), and can create a lack of relatedness with colleagues and to the institution causing minimalistic tendencies (Deckop, Giacalone, and Jurkiewicz, 2015).

### **Purpose of the Study**

The purpose of this dissertation is to examine faculty intrinsic motivation within corporatized U.S. higher education. With such a heightened integration of administratively induced accountability structures, external reward systems, and the ongoing pressure for faculty to produce monetarily and to increase institutional prestige, the central aim of this study is to

examine the degree to which the independent variables of autonomy, competency, and relatedness impact the studies dependent variables - faculty attitudes towards their work and the institution. Within this context, an empirical gap is found in the literature exploring the work climate and motivation of tenured or tenured-track academic faculty across public and private nonprofit research universities using the prominent work motivation theory of self-determination. Furthermore, despite the fact that corporatization has a place in the literature among scholars, there remains no current measurement tool to explore its empirical impact on faculty. This study provides a measurement tool to assess corporatization and offers suggestions for further development and research.

### **Overview of Theoretical Framework**

Self-determination theory (SDT) is especially relevant to the topic of faculty motivation as it offers a broad cognitive development macro-theory that includes a continuum of autonomously-directed to controlled-regulation and the ability to account for the social and cultural aspects of higher education. Developed by Edward Deci and Richard Ryan (1985), SDT views motivation as the activating agent for behaviors and assumes individuals are intrinsically driven to meet three innate and universal needs of autonomy, competency, and relatedness.

Notably, SDT offers an explanation for the inconsistencies between the classic mechanistic and organismic motivational theories. Chief among these issues is the fact theories of motivation too often demonstrated an overreliance on lab experiments that weaken the external validity of the theory. Equally problematic, researchers historically approached the study of motivation from a narrow dichotomous and step-wise approach to intrinsic and extrinsic motivators. Further, other motivational theories, when applied to organizations, over emphasized the use of one motivator over another (Gagné & Deci, 2005).

These discoveries led Deci and Ryan (1985) to the development of self-determination theory (SDT); a multi-dimensional examination of critical psychological needs that motivates employees intrinsic tendencies towards growth (Deci & Ryan, 2002). Thus, SDT offers a superior framework that accounts for both organismic and mechanistic factors to better explain autonomous employee motivation which this study will apply to academic faculty in the workplace.

### **Research Questions**

Using the well-established self-determination theory (SDT) this study examines the following research questions:

- 1) What differences, if any, exist in the fulfillment of basic psychological needs and experiences of corporatization between the public and nonprofit sectors academic faculty?
- 2) What role do the three basic psychological needs of self-determination theory play in faculty job involvement and turnover intention?
- 3) How does corporatization directly impact job involvement and intentions to leave?
- 4) Does self-determined motivation mediate the impact of corporatization?

### **Significance of the Study**

Faculty motivation is a significant area of research that will aid in better understanding how to cultivate optimal working environments that consider the important role of autonomy, competency, and relatedness. Since the bulk of an institutions success is heavily reliant on the work of academic faculty, the study of employee motivation is especially salient. Better understanding the intrinsic and extrinsic determinants that promote work attitudes and retention is important to long-term institutional success and faculty well-being. Past work motivation

studies have demonstrated that when an individual's actions are driven by an innate (i.e., intrinsic) desire or enjoyment for the activity they are likely to put forth more effort and are more engaged than those who are induced or pressured extrinsically (Borzaga & Tortia, 2006; Deci & Ryan, 1985, Gagné & Deci, 2005; Hardré, 2012). In order to better understand these conditions that promote growth, we begin with the fundamental building blocks of self-determined motivation theory – need fulfillment.

The empirical data derived from this cross-sectional study helps provide the literature with faculty motivation levels across two sectors. Currently, no quantitative study has used SDT to compare faculty motivation among the nonprofit and public institutions of higher education while considering the current corporatization revolution. This study aims to fill that gap. If nonprofit faculty members are more positively impacted by intrinsic motivators, as is often the case for their peers in other nonprofit fields and organizations, it is important for institutions to know the variances and the specific conditions that fulfill their basic psychological needs and aid in positive job-related outcomes. Conversely, if no differences exist between nonprofit and public university faculty, this result may further support the work of scholars who have noted the blurring of sector lines (Bozeman & Bretschneider, 1994; Rainey, Backoff, & Levine, 1976).

A second and equally important contribution to the literature is the introduction of a measurement scale to operationally assess the hypothetical construct known as corporatization. Currently, no such measurement exists in the literature despite ample peer-reviewed journal articles and entire books devoted to the topic of higher education's emersion with the corporate world. As noted in the introduction to this chapter, corporatization is believed to cause a stable of issues that undermine the public good of higher education and is said to be the cause of

declining faculty working conditions. An empirical understanding of the impact that corporatization has on faculty motivation, job involvement, and retention is necessary.

### **Outline of the Study**

Chapter One introduced the problem of corporatization within higher education and significance of the study. Chapter Two will review the motivation literature beginning with an overview of the classic theories that led to contemporary work motivation models. This is followed by a discussion around the theoretical framework and research on faculty motivation. Chapter Three presents the methodology of the study chosen to answer the research questions. The research instruments used, data collection and data screening procedures, and the studies hypotheses are presented. Chapter Four provides the results of the data collection and analyses. Chapter Five completes the study by highlighting the implications derived from the data, reviews the limitations, and makes recommendations for future research.

## **Chapter 2: Literature Review**

### **Introduction**

The study of human motivation is a deep and complex field complete with an immense collection of paradigmatic work, empirical richness, and important implications to individual and organizational well-being. Not surprisingly, motivation research offers real-world application and relevance to our daily lives. Thus, research in this area has produced well-known theories applied across disciplines which shape our understanding of what motivates us at work. Indeed, many of the most salient of motivation studies during the last century have come from the fields of psychology, sociology, and economics (Deci & Ryan, 1985; Freud, 1910; Harlow, 1950; Hull, 1943; Maslow, 1943; McGregor, 1960; Murray, 1938; Skinner, 1937; Thorndike, 1911; Tolman, 1932, Vroom, 1964, White, 1959). Each theory is best considered through a historical lens; one that recognizes the theoretical relatedness and disassociation of each. As we will discuss throughout this chapter, there is an abundance of scholarly analysis energized to either support or falsify these theories, and serves as a testament to each's critical contributions. For these reasons, this literature review will commence with a historical exploration of the seminal studies which led to the development of this dissertations theoretical framework, reason for methodological approach, and ultimately providing the substance by which further research on faculty motivation is needed.

This literature review will begin by identifying classic mechanistic and organismic theories that have been used to describe human motivation. Next, prominent contemporary work motivation theories are conceptualized and viewed dichotomously from the exogenous to endogenous. The theory of self-determination is then presented as the theoretical framework and the primary innate needs of autonomy, competency, and relatedness are introduced along with

the theory's four extrinsic typologies. This is followed by a discussion around the significance of the research problem and contribution to self-determination theory. The chapter concludes by identifying the methodological tool selected for the research questions presented.

### **Classical Theories of Human Motivation**

Classical theories of human motivation can be viewed as falling along a “continuum” of mechanistic and organismic viewpoints and are considered by scholars as influential to our present understanding of work motivation (Deci & Ryan, 1985, p.3). Mechanistic theories observe human behaviors as a consequence of the “interaction” between the external environment and internal physiology of the individual (Deci & Ryan, 1985, p.3). Meaning, they see motivation as activated or caused by mechanisms outside the individual that are easily manipulated or controlled. Vallerand and Ratelle (2002) provide a pragmatic definition of extrinsic motivation, as “behaviors carried out to attain contingent outcomes” (p.37); which is a fundamental emphasis of mechanistic motivational theories.

On the other side of the spectrum, organismic theories view motivation as an active volitional process where individuals pursue psychological well-being (Deci & Ryan, 1985). Intrinsic motivation tends to be the focus of organismic studies and is defined as behaviors that follow the path of one's own natural curiosity or interests (Deci & Ryan, 2000). The following section will take a closer look at salient examples of both mechanistic and organismic theories.

#### **Mechanistic Frameworks**

**Drive theories.** Early in the 20<sup>th</sup> century, mechanistic drive theories dominated the landscape and research efforts of scientists who advanced the idea that answers to what motivates humans begin with the examination of physiological drives (Deci & Ryan, 1985; Greeno, Collins, & Resnick, 1996). Freud's psychodynamic theory attempted to describe human



motivation through unconscious processes based on sexual and aggressive instincts (Deci & Ryan, 1985). Freud's classic theory is widely known to involve a self-absorbed interaction of the id, ego, and superego, whose interplay drive maladaptive behaviors. However, the psychodynamic approach to understanding motivation is largely based on supposition from case studies, and thus, has long been known to suffer from an inability to be falsifiable. B.F. Skinner was critical of psychodynamic drive theories seeing them as founded upon constructs that were impossible to measure, referring to the work of Freud as established by "antecedent stimuli" (Skinner, 1963, p.503).

In 1908, Psychologists Robert Yerkes and John Dodson established a connection between stress and performance through experiments on mice launching the formative work that would later be known as the Yerkes-Dodson Law (YDL) (Corbett, 2015). The basic assumption of this drive theory held that under certain levels of stress or arousal an organism will be more motivated to action resulting in higher levels of performance. However, the research supporting this claim would later be called into question based on a lack of explanatory power and falsifiability (Corbett, 2015).

Similarly, Hull's (1943) *Principles of Behavior Theory* was a seminal attempt by drive theorists to offer a more empirical study of motivation. Hull (1943) explored physiological drive impulses such as hunger, thirst, and pain avoidance that he believed activated motivational drives. According to Hull, when a need such as hunger occurred within an organism, the physiological drive to quench the need would trigger a corresponding behavior to satisfy the need for food and successively reducing the physiological drive. Drive reduction and satisfaction of the need is what Hull saw as energizing (i.e., driving) the organism into action. As noted by motivation scholars Deci and Ryan (2000), Hull's "drive states and the stimulus-

response associations” connected organismic needs to the environment and used these interactions to “predict subsequent behaviors” (p. 228). Once the need for thirst is quenched, for instance, the organism no longer will be motivated to continue actions that would serve to quench its thirst.

While psychodynamics suffered from a lack of objectivity, empirically based drive theories suffered from an inability to adequately explain intrinsic motivation. While Hull’s (1943) research “attempts to present in an objective, systematic manner” (p. v), ironically, his drive theory would later be criticized for its empirical flaws most notably an inability to explain constructs such as “exploration, investigatory manipulation, vigorous play, and other spontaneous activities” (Deci & Ryan, 2000, p.228). According to Ernest Hilgard (1987) in *Theories of Learning and Instruction*, prominent psychologist William Estes in the 1950’s was particularly critical of Hull’s lack of mathematical rigor and the theories over reliance on outdated “curve-fitting models” (p. 211). Further, Harlow’s (1950) study of rhesus monkeys and their ability to learn complex puzzles without extrinsic rewards (e.g., food) demonstrated intrinsically motivated behaviors such as curiosity. Similarly, Premack (1959) found that investigatory behaviors of rats did not diminish with the decrease in the primary drive for hunger. In this context, Gagné and Deci (2014) in *The History of Self-Determination Theory in Psychology and Management*, correctly point out the conceptual flaw in the theory when they note that empirical research has demonstrated “exploratory behaviors did not decrease following “consumption”; that is, they did not evidence the homeostatic cycle associated with drives, so the motivation underlying exploration did not align with the definition of drive” (p.1). The same can be said regarding other common constructs such as manipulation (Harlow, 1950; Deci & Ryan,

1985). Consequently, the Hullian framework alone is inadequate when attempting to explain and predict intrinsic motivation.

**Behaviorism.** Like drive theories, behaviorism falls under the mechanistic model and was a dominant macro-theory of motivation during the twentieth-century. Theories generated by the early behaviorists, like Thorndike (1911) and Skinner (1937), perceived behavior as determined by the environment and focused on a stimulus-response link with “past reinforcements” that predicted future behaviors (Deci & Ryan, 1985, p.7). Like latent robots being energized into action by an external agent (i.e., environment) people are viewed as being controllable and passive. B.F. Skinner, guided by Thorndike’s (1911) research of Law and Effect, challenged the validity of studying psychological “thoughts and feelings” that he believed were impossible to empirically study (Skinner, 1988, p. 171). Skinner’s theory predicated on precision, replication, and observable behaviors focuses on the interaction between external stimuli, responses, reinforcements, and consequences. Skinner termed this sequence of events as operant conditioning; a classic example of mechanistic theories because it primarily assumes humans are motivated by their environment through hedonistic physiological principles of pleasure seeking and pain avoidance (Porter & Lawler, 1968; Skinner, 1988). Not by psychological drives or autonomous choice. It is important to note that the overall emphasis of behavioral theories, like drive theories, is on extrinsic motivators (Greeno, Collins, & Resnick, 1996).

**Economic theories.** Another area of scholarship which has impacted our understanding of work motivation comes from economics. Historically, economists have utilized mechanistic mathematical formulas, to predict human behaviors by concentrating their empirical and theoretical efforts towards the connection between behavior and incentives (Parsons, 2012). For

instance, the standard economic model, envisions humans as rational decision makers motivated by their own self-interest and immediate gratifiers of consumption who will seek to maximize their utility (Gupta, 2011; Wilkinson, 2008). Similarly, agency theory (Ross, 1973; Jensen & Meckling, 1976) sees behaviors between a principle (e.g., university president) and agent (e.g., academic faculty) where motivation is tied to extrinsic determinants effectuated by an “outcomes-oriented contract” (Shapiro, 2005, p. 265).

While the standard economic theory of rational man has proven to be a useful economic tool, it poses limitations when attempting to predict irrational human behaviors (Allison, 1971; Deci & Ryan, 1985; Kahneman & Tversky, 1979; Simon, 1959; Wilkinson, 2008). Behavioral economics was the product of a 1960’s movement by psychologists towards the view of the human mind as an “information-processing” organism rather than the mechanistic “conception of the brain as a stimulus-response machine” (Camerer & Loewenstein, 2004, p. 6). It was the field’s answer to consistent anomalies found in *homo economicus* or the neoclassical view of rational, utility maximizing, efficiency driven behaviors. For instance, prospect theory emerged as a product of behavioral economics that combines known psychological factors with economic models. The assumption of the theory is simple: through the course of determining the costs and benefits of an action, emphasis is attached to “the fear of loss rather than the prospect of a potential gain” (Gupta, 2011, p. 14). In other words, decisions are often motivated by irrational fear. Despite its ability to explain decisions in laboratory experiments, prospect theory has seen very limited application within the field of economics and cannot fully explain the more complex aspects of human nature, such as feelings of regret or acts of altruism (Barberis, 2013).

Contrary to the neoclassical view of the positive impact monetary incentives will have on motivating workers, researchers have discovered that under certain conditions, increasing

extrinsic reward systems will have unintended consequences (see studies by Deci, 1971; Deci, Koestner & Ryan, 1999; Lepper, Greene, & Nisbett, 1973; Titmuss, 1970). For example, Richard Titmuss (1970) wrote a prominent healthcare book titled *The Gift Relationship*. Like his colleagues within higher education, Titmuss was concerned over the encroachment of corporate market-based principles into the healthcare system. He brazenly suggested that giving money for blood donations would undermine intrinsic motivation. In other words, extrinsic monetary inducements would lessen one's intrinsic desire to help others. Titmuss (1970) apparently was on to something as the principle behind his hypothesis would later be discovered empirically as the motivation crowding effect (Deci, 1971; Frey & Jegen, 2001; Lepper, Greene, & Nisbett, 1973). Motivation crowding effect contradicts our understanding of one of the most fundamental assumptions of the standard economic model (Frey & Jegen, 2001). "Monetary incentives crowding out the motivation to undertake an activity may be considered a major anomaly because it predicts the reverse reaction to the one expected according to the relative price effect, on which much of economics is based" (Frey & Jegen, 2001, p. 590).

These findings highlight the need for researchers to better understand the interplay and differences between intrinsic and extrinsic motivators. Frey and Jegen (2001) astutely articulate the critical issue undermining standard economic theory, noting the theories disregard for discriminating between "different sources of motivation, which in the economic view are just manifestations of underlying preferences" (p.591). Motivation crowding theory begins to move the literature closer to a framework of work motivation that accounts for both extrinsic and intrinsic motivators (Frey & Jegen, 2001).

Equally influential to the understanding of work motivation are exogenous and endogenous economic variables. With the former contributing to the development of content

theories and the latter contributing to process theories of work motivation (Grant & Shin, 2012; Katzell & Thompson, 1990; Luthans & Ottemann, 1973). This will be discussed in more detail later in the chapter when describing the two schools of contemporary theories of work motivation.

### **Organismic Frameworks**

The development of cognitivism in the 1950's led to the other end of the spectrum of motivation theories and research - those that are based on innate organismic processes. The overall emphasis within the organismic worldview focuses on intrinsic motivators (Greeno, Collins, & Resnick, 1996). Within organismic theories, individuals are viewed as active participants, with free-choice, and invigorated to act off their intrinsic psychological desires (Deci & Ryan, 2014). As such, human motivation is viewed holistically and developmentally. As noted by Deci and Ryan (1985), the introduction of cognitive theories brought individual choice (e.g., autonomy) into the conversation, a concept previously undervalued by scholars in the field. While each differs from the other, organismic theories see humans as active volitional agents pursuing psychological well-being.

**Cognitivism.** Long before scholars began empirically questioning the major assumptions of *homo economicus*, earlier researchers were questioning the validity of behaviorism. Of particular concern is its extrinsically dominated mechanistic approach that mostly ignored intrinsic behaviors and relied too heavily on animal experimentation. The overly parsimonious stimulus-response framework of behaviorism, ultimately led to cognitive psychologists focusing their attention on more complex human cognitive processes that directed behaviors instead of animal subjects being directed by their environments. Similar criticisms would produce the 1950's "cognitive revolution" (Hilgard, 1987, p. 221).

Many scholars during this cognitive period, were influenced by the earlier work of University of Berkeley professor Edward Tolman (1926/1932/1948) who began reconstructing physiological hedonistic theories to more adequately explain human phenomenon (e.g., autonomy and free-will). Similar to Thorndike and Skinner, Tolman continued to use animal's to test motivation. However, his purposive behaviorism differed from traditional behaviorists by focusing on cognitive concepts like intentional processes that demonstrated "learning under conditions of no reward" (Hilgard, 1987, p. 206). Tolman's work inspired research on constructs such as regression, frustration, and choice, influencing many scholars to replace the mechanistic view of motivation to one that better accounts for these complex phenomenon (Deci & Ryan, 1985).

Similar to Tolman, the pioneering research of psychologist Robert White (1959) found insufficiencies within both the behavioral theories and the psychodynamic drive approaches. White's (1959) empirical work demonstrated the inability of mechanistic theories to adequately explain how constructs such as curiosity, play, and exploration met the behavioral or drive needs of the individual (Deci & Ryan, 1985; Deci & Ryan, 2000). These constructs, and others like volition and autonomy, would later be understood as evidences of intrinsic motivation. White's work advanced Richard DeCharms' (1968) understanding of personal causation (e.g., the presence of an individual's internal desire towards causation) (Gagné, 2014). According to Deci and Ryan (1985), DeCharms (1968) "suggested that personally caused actions can have either an internal perceived locus of causality-one's interests and desires are experienced as initiating action-or an external perceived locus of causality-some external event is experienced as initiating action" (p.7).

Following Tolman's (1932) revolutionary work, *Purposive Behavior in Animals and Men*, are among the most influential scholars within the organismic school of thought who have contributed greatly to the literature on work motivation. These include, Murray (e.g., personality theory of needs strength, 1938), Maslow (e.g., hierarchy of needs theory, 1943), Vroom (e.g., expectancy theory, 1964), Adams (e.g., equity theory, 1963), Locke and Latham, (e.g., goal-setting theory, 1990), and Deci and Ryan (e.g., self-determination theory, 1985). Each of these researchers' theories begin to undress the full complexity of innate and organismic human motivation that was lacking in mechanistic animal experimentation and has led to construction of contemporary work motivation research.

### **Theories of Work Motivation**

Literature on work motivation has primarily distinguished itself between two expansive types of theories (Grant & Shin 2012; Katzell & Thompson, 1990). The first category can be considered exogenous frameworks such as Murray's (1938) needs strength, Maslow's (1943) hierarchy of needs, Locke's (1967) goal-setting theory, and Hackman and Oldham's (1980) job-design theory. Each of these frameworks have been used to view the genesis of employee motivation as activated by determinants outside the individual (e.g., environment). Rewards, organizational goals, technological resources, and the structure of the workplace are classic examples of exogenous inducements (Grant & Shin 2012).

Conversely, endogenous cognitive activities stimulate motivation and emanate from within the employee but can be difficult to operationalize. Examples include constructs such as attitude, motive, effort, value, expectation, and desire for equity (Katzell & Thompson, 1990). The consideration of these endogenous constructs and impact on employee motivation contributed to the development of expectancy theory (Vroom, 1964) and equity theory (Adams,



1963). “Endogenous process theories focus primarily on the psychological mechanism that explain motivation inside employees’ heads, while exogenous cause theories focus primarily on contextual influences on work motivation that can be changed and altered” (Grant & Shin 2012, p. 505).

### **Exogenous Frameworks**

**Needs theory.** The concept of needs research came into prominence around the midway mark of the 20<sup>th</sup>-century and has been used by work motivation scholars to uncover action levers organizations can use to unlock positive outcomes producing motivators (Katzell & Thompson, 1990). Murray’s (1938) influential research examined the construct of needs based on psychological strength (Deci & Ryan, 2000). Murray defined needs strength as being centered on the mental desires and wishes of people; the more you want something the more likely you will pursue the preferred outcome (Deci & Ryan, 2014). Constructs such as, competency, power, affiliation, and goal achievement are key components to the general influence of a need and provide target variables for managers to better understand what contextual factors activate employee motivation. Based on needs theory, employees are assumed to be driven by a desire to “seek out or avoid certain kinds of stimuli” (Katzell & Thompson, 1990, p.145) such as pay increases or pay reductions.

Building upon the work of behaviorist Edward Thorndike, Maslow’s (1943) influential hierarchy of universal needs theory focused on five constructs he believed would initiate motivation - physiological, safety, love, competency, and self-actualizing. Maslow’s (1943) needs theory assumes “human needs arrange themselves in hierarchies of prepotency” (p. 370) in which lower level needs (e.g., the need for food) must first be satisfied before higher level needs (e.g., the need to feel competent) become actuated motivators. Consequently, as noted by Deci and Ryan (2014), work motivation theories utilizing a needs based framework have reduced

these five constructs into two dichotomous classifications – “lower-order needs” and “higher-order needs” (p.15).

One of the earliest and most influential theories to approach work motivation from a uniquely higher-order needs framework was developed by MIT professor Douglas McGregor in the 1960’s. Through theory X and theory Y McGregor (1960) argues that since employees in first-world countries primarily have the “lower-order needs” met, the “higher-order needs” for relatedness, competency, and self-actualization should be studied and understood by employers (Deci & Ryan, 2014, p. 15). Unlike Theory X which depicts employees as work adverse and fully extrinsically motivated, Theory Y emphasizes employee autonomy, an innate desire to work, and suggests employees function most productively under healthy working conditions.

**Goal-setting theory.** Goal-setting theory, another prevalent exogenous motivational theory, was first developed by Edwin Locke in the 1960’s. Locke argued higher levels of work performance will be achieved through specific and challenging goals rather than unambitious goals (Katzell & Thompson, 1990; Locke & Latham, 1990; Locke, 1967). According to Locke, Motowidlo, and Bobko, (1986), goal-setting theory is one of the most widely used work motivation frameworks within organizational and industrial psychology because it focuses on identifiable contextual influencers of motivation; making it much easier for managers to discover concrete levers for improving employee performance. After a quarter of a century of extensive research (over 400 laboratory and field experiments testing goal-setting theory) we know that the combination of employee commitment and ability, ambitious and attainable goals, and constructive feedback on goal achievement will lead to higher work performance (Bess, 1997; Grant & Shin, 2012; Locke & Latham, 2006; Locke, Motowidlo, & Bobko; Wiese & Freund, 2005). “Goals are related to affect in that goals set the primary standard for self-satisfaction with

performance” (Locke & Latham, 2006). Applied to academic faculty, the theory would assume that goal-setting (e.g., publishing an article) is a product of the faculty member’s current dissatisfaction and is intentionally designed to improve their future affective state.

Over time, research has amassed a large stable of work that has considered exogenous constructs employed within organizations. These include studies on managers reinforcement of employee performance through positive praise (Ryan, 1982) or performance contingencies (Fang, Evans, & Zou, 2005); training and development programs designed to improve achievement by changing motives (see McClelland, 1965) and management orientations (Latham & Locke, 2007); and studies determining job involvements impact on turnover intentions (Howard & Bray, 1988).

Exogenous theories have been used to study faculty motivation. For example, using a needs theory framework, Cook, Crawford, and Warner (2009) reported findings from a series of self-report quantitative Likert-scale surveys examining faculty motivation to teach online distance education and e-learning courses. Based on their analysis of the literature, studies conducted before 2003 produced higher intrinsic motivation levels to teach online courses compared to more recent studies. Further, the research of Gannon-Cook (2003), heavily influenced by Maslow’s needs theory, showed that while faculty continue to indicate intrinsic qualities for teaching and university service, extrinsic motivators, such as course release time and pay incentives, have become increasingly more significant higher-level need fulfilling determinants. Cook, Crawford, and Warner (2009) concluded that Gannon-Cook’s (2003) work demonstrated that some extrinsic motivation appears to satisfy basic physiological needs which are critical to the ongoing success of distance education and e-learning programs. However, these two studies and others examining faculty motivation are typically limited by a narrow

focus (i.e., distance education and e-learning faculty), do not consider motivation differences across the sectors, and they cannot account for the flaw in Maslow's basic premise, the fact that higher-level needs satisfaction does occur, even to detriment of lower-level needs (Deci & Ryan, 1985).

Recognizing these limitations, two future recommendations are made by Cook, Crawford, and Warner (2009) calling for scholars to investigate faculty motivation in the context of the current competitive landscape of higher education and to study the construct of attrition. Further, Locke, Cartledge, and Koeppel (1968) conclude that external rewards do not positively impact job performance “. . . when the effects of goal setting and intentions are controlled or partialled out” (p. 483). Job performance is arguably more important to the future of online distance learning as the accountability for teaching excellence grows.

Exogenous frameworks have limitations. For instance, research tells us that exogenous variables that stimulate motivation, can be costly, are not singular influencing causes, and tend to ignore the psychological within-person processes that greatly influence motivation. According to the architects of goal-setting theory, Locke and Latham (2006), “the lack of focus on the subconscious is a limitation of goal-setting theory”. The authors go on to state that “research is now needed on the effect of the subconscious on goals and on the ways in which goals arouse and affect subconscious knowledge” (p.714).

### **Endogenous Frameworks**

**Expectancy theory.** Influenced by Tolman's (1926) purposive behaviorism, Vroom's (1964) expectancy-valence theory is one of the most heavily researched and validated theories of work motivation (Erez & Isen, 2002). The hedonistic cognitive-processing theory assumes employees will make rational decisions based on the belief that the expected outcome (e.g., external reward) can be achieved by effort and performance (Porter & Lawler, 1968). Put

another way, “Vroom postulates that motivation is a function of the interactions among effort performance expectations, performance-outcome instrumentalities, and outcome valences” (Luthans & Ottemann, 1973, p.55). Porter and Lawler (1968) would later use concepts from Vroom’s (1964) work to offer an intrinsic and extrinsic work motivation framework that has led to a focus on constructing productive and healthy work environments. Through this endogenous lens, employee motivation is seen as a psychological process of assessing the utility of an action (will the action improve my chances?) towards the attainment of a chosen external end (is the outcome worth my effort?). If the probability of outcome attainment is increased, then the employee will be more motivated to act in that manner. When the action does not move the employee towards their expected outcome, they are less motivated to act. This requires scholars to accept the premise that humans are fully rational cognitive agents who act in a calculating outcomes based manner. As an example applied to academic faculty, the theory postulates that a faculty member calculates the degree to which effort to achieve student learning outcomes will actually improve their chances for tenure.

Using expectancy theory, Chen, Gupta, and Hoshower (2006) examined 320 business faculty from 10 institutions, finding faculty who score higher on both extrinsic and intrinsic motivation for research were the most likely to publish. The authors also found that extrinsic motivation was higher among nontenured faculty. In another study of faculty motivation using expectancy theory, Tien’s (2000), multivariate analysis found that full-time faculty across nine Taiwanese institutions are motivated to publish research articles for the purpose of promotion *and* “intellectual curiosity” (p.744). The authors conclude there has been an overemphasis placed on an either-or dichotomy of external reward systems or innate desires. Instead they found that both are important to the motivation of faculty to produce research and publish.

**Equity theory.** Best known as a prominent organizational justice or social exchange framework for understanding work motivation, Adams' (1963, 1965) equity theory assumes workers will cognitively select or approve of actions that produce a sense of impartiality and reduce perceptions of inequality within the workplace (Gerhart & Milkovich, 1992; Hilgard, 1987; Kanfer, 1990; Stecher & Rosse, 2007). The theory brings to light the social component of motivation that had previously been underappreciated as it focuses on an employee's tendencies to make social comparisons in order to determine equity (Grant & Shin, 2012). "According to the theory, inequitable comparisons result in a state of dissonance or tension that motivates the person to engage in behavior designed to relieve the tension (e.g., raise or lower work efforts to reestablish equity, leave the situation that is causing inequity)" (Ambrose & Kulik, 1999, p.241). If the employee concludes that another colleague has "more favorable input-output ratios", equity theory assumes an emotional tension will exist "even when employees receive outcomes that match their inputs" (Grant & Shin, 2012, p.507). Consistent with other research on equity theory, Greenberg's (1989) work presented evidence that people who perceive inequitable compensation will indeed reduce their work performance. Further, in a study that spanned over 400 organizational compensation structures, Bloom and Michel (2002) found that larger pay ranges between the highest paid managers and the lowest paid managers was predictive of higher rates of turnover.

The extension to equity theory is procedural justice (Lind, Kulik, Ambrose, & De Vera-Park, 1993) which is more interested in the process of events (e.g., the way in which decisions are made) rather than the actual outcomes (e.g., the results of those decisions). Research has found a significant relationship between procedural justice and autonomy (Van Prooijen, 2009) demonstrating that sensitivity towards "fairness" is keenly felt by employees if supervisors have

not satisfied their need for self-determined behaviors (p. 1176). Further, research by De Cremer (2002) connects procedural justice to an employees need for relatedness, while Tyler and Blader (2002) connect the theory to competency needs.

Yet, similar to exogenous theories of work motivation, endogenous theories also have limitations. For instance, equity theory's basic premise assumes individuals will seek equilibrium of equal inputs to outputs and if an employee feels over rewarded they will increase their outputs to reduce the stress brought on by perceived inequality. However, research exists suggesting external inducements can undermine the achievement of important institutional goals, such as service to the institution or teaching excellence (Deci, Koestner, & Ryan, 1999; Frey & Jengen, 2001). Deci's (1971) laboratory and field experiments led to the discovery that over rewarding, under certain conditions, can actually reduce aspects of motivation. Similarly, Deckop, Giacalone and Jurkiewicz (2014) found in an examination of employees across sectors, a negative relationship between increased compensation and organizational citizenship behaviors. Further, when Ambrose and Kulik (1999) examined 200 studies using equity theory as the theoretical framework, the impact of over rewarding has been inconsistent (see also Miner 1984; Mowday, 1991). Equity theory is simply not robust enough to account for the complex factors associated with employee motivation across the sectors and within the complex world of corporatized higher education.

Expectancy theory, in similar ways to equity theory, suffers from unresolvable issues and limitations. First, expectancy theory is mostly based on correlational research (Grant & Shin, 2012). Not enough empirical data exists to validate the theory. Secondly, studies testing the viability of the theory demonstrate issues with its core assumptions and inability to predict employee behaviors. For instance, Hackman and Oldham's (1976) growth motivated concept

contradicts the assumption performance is only motivated based on a desired outcome. The authors, similar to other motivational scholars, found evidence of motivation despite a lack of expectancy and concluded that performance can be the end motivator in the absence of no external rewards (Butler & Womer, 1985; Hackman & Oldham, 1976; Harrell & Stahl, 1981). Van Eerde and Thierry (1996) performed a meta-analysis of 77 studies that used expectancy theory and discovered the major constructs of the theory were more predictive of “intentions and preferences” than they were of “behavioral indicators” (Grant & Shin, 2012, p. 506). Finally, the theory is unrealistic and too calculating based on the assumption that individuals “continuously evaluate the outcomes of their behavior and subjectively assess the likelihood that each of their possible actions will lead to various outcomes” (Chen, Gupta, & Hoshower, 2006, p.180; Ashford, Rothbard, Piderit, Dutton, 1998).

### **Theoretical Framework**

Beginning in the late 1950's, Herzberg is credited for commencing the first theoretical examinations of both intrinsic and extrinsic motivation factors and the distinctive influence of each upon employee behaviors. His two-factor framework focused on *motivators* (e.g., content factors such as professional development opportunities and recognition) and *hygiene* (e.g., context factors such as compensation and working conditions); the former associated with job satisfaction and the latter to dissatisfaction (Herzberg, Mausner, & Snyderman, 1959; Herzberg, 2008; Gagné & Panaccio, 2014; Myers, 1964). According to Herzberg (1964), “The satisfiers serve to provide for the human need to exercise one’s capabilities or the surplus potentiality of the brain as an instrumentality for psychological growth” (p. 395). Herzberg believed the dissatisfiers (i.e., hygiene factors), are connected to the “animal side of man’s nature which needs to avoid unpleasant environments” (p. 396). Herzberg assumed that employees were



motivated by *both* psychological and physiological needs. Gagné and Panaccio (2014) perceptively note the “parallel” between Herzberg’s two-factor theory and Maslow’s where the higher-order needs are met through motivators and the low-order needs are met through hygiene factors (p. 168).

Building upon Herzberg’s work, psychologist and co-founder of self-determination theory, Edward Deci, in similar fashion as White (1959), and DeCharms (1968), began in the 1970’s to empirically address the conflicting schools of thought on human motivation. Their work also followed earlier research by Woodworth (1918) who was “the first psychologist to outline a theory that directly addressed the issue of intrinsically motivated behavior” and Allport’s (1937) functional autonomy which, focused on motives that are innate and preserved irrespective the presence of extrinsic rewards (Deci & Ryan, 1985, p.12).

To examine intrinsic motivation within college students, Deci’s (1971) seminal work consisted of two laboratory experiments and one field experiment. Participants for two of the experiments were undergraduate psychology students (12 in the control group and 12 in the experimental) who were asked to complete a series of difficult puzzle configurations. In both experiments, participants were instructed during the first session to complete the puzzles without any external influence from the experimenter. During the second session, external reinforcements were introduced – monetary rewards during the first experiment and verbal praise during the third experiment. In both lab studies, Deci (1971) found the external monetary rewards decreased motivation when the task was an expected condition. The third experiment conducted occurred in the field replicating the same hypotheses as the laboratory settings. Only this time, students (N=8) were hired as college newspaper journalists and were provided additional and unexpected compensation to incentivize writing headlines. Like the original lab

experiments, the external reward was later taken away and outputs were carefully examined. Similar results were found; monetary external rewards decreased intrinsic motivation of the student writers.

Other studies were quick to support Deci's (1971) original research (see Kruglanski, Friedman, & Zeevi, 1971; Lepper, Greene, & Nisbett, 1973) finding under certain conditions the insertion of external rewards decreases the intrinsic motivation to complete a particular task. Deci's research identified the motivation crowding effect where extrinsic motivators (e.g., merit pay) reduce intrinsic motivation (e.g., innate desire to teach). Yet, Deci's original work was not complete. As pointed out by Lawler (1971) and Chen (2014), motivation crowding effect is a narrow step-wise approach that understands motivation as an "intrinsic-extrinsic dichotomy" (Chen, 2014, p.740). Deci, with the help of Ryan, would later develop a more vigorous theory of self-determination that accounts for the "multidimensionality" of the phenomenon (Meyer, 2014, p.38) and the paradoxes found between mechanistic and organism theories. A theory that is well designed to explore faculty motivation within the multidimensional context of corporatized higher education.

### **Self-Determination Theory**

Self-determination theory (SDT), a cognitive development macro-theory, distinguishes between controlled and autonomous motivation. Deci and Ryan's (1985/2000/2002) SDT views intrinsic motivation as the actuating agent for human behavior and assumes humans are driven towards growth and the fulfillment of three essential inborn needs of autonomy, competence, and relatedness. All humans have these basic fundamental needs, when fulfilled, allow the individual to experience greater levels of happiness. Similar to how our physical bodies need proper nutrition for optimal functioning, we also need what Deci and Ryan (2002) refer to as

“psychological nutriments” that are “necessary conditions for the growth and well-being of people’s personalities and cognitive structures” (p. 7).

**Innate needs.** Autonomy is defined by Deci and Ryan (2002) as “the perceived origin or source of one’s own behavior” (p. 8). Employees who experience higher degrees of autonomy have a strong sense of choice in their daily work decisions. In studies involving academic faculty, autonomy is consistently connected to increased levels of job satisfaction and work engagement (see Austin & Rice, 1988; Van den Berg, Bakker, & Cate, 2013). Competency consists of the degree to which a person feels they have a direct influence on their work and environment around them. Deci and Ryan (1985) refer to this as “effectance” (p.109). Scholars have linked positive praise with the need for competency, demonstrating that intrinsic motivation is increased when specific positive praise is given and there is congruency with the received praise and effort given (Deci, 1971; White, 1959). Furthermore, past research on academic faculty work attitudes demonstrates a positive association with feelings of competency (Bozeman & Gaughan, 2011; Austin & Rice, 1988). It seems obvious that when faculty feel capable, proficient, or skilled in their work, positive outcomes will follow. Deci and Ryan (2002) define relatedness as “having a sense of belongingness” and feelings of “connection to others” or one’s community (p.7).

When a faculty member’s activity is done with complete “volition, willingness, and congruence; it means to fully endorse and concur with the behavior one is engaged in” (Deci & Ryan, 2012, p. 85) and ultimately, this *intrinsic motivation* allows the individual to achieve psychological well-being (Deci & Ryan, 1985). Mandates from market-oriented governing bodies without true shared governance likely has the effect of diminishing intrinsic motivation. Studies by Sheldon, Ryan, and Reis (1996) and Sousa-Poza and Sousa-Poza (2000) are among

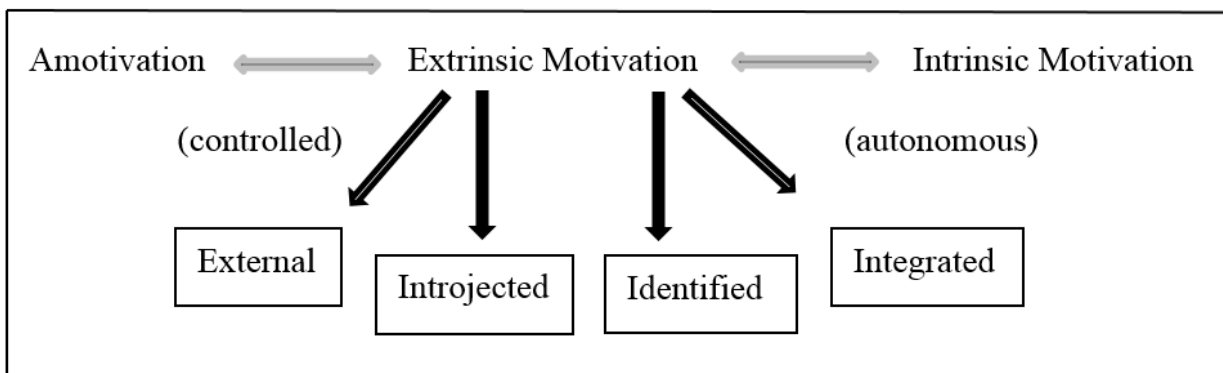
many that substantiate SDT's proposed association between the fulfillments of these three innate needs with well-being (Ryan & Deci, 2002).

Indeed, scholars have independently studied these three innate human needs but none combine them into one macrotheory similar to SDT. For instance, White's (1959) work focused on the need for competence, Baumeister and Leary (1995) examine relatedness, and DeCharms (1968) autonomy. These past studies, and others, have demonstrated autonomy and competence are the most potent stimuluses for intrinsically motivated behaviors (Deci, 1975; Harter, 1983). Relatedness, the third psychological need proposed by SDT, has also been shown to play an important part in the preservation of intrinsic motivation (Deci & Ryan, 2000; Ryan & La Guardia, 2000; Ryan, Stiller, and Lynch, 1994).

**SDT addresses limitations.** Self-determination adds to our understanding of work motivation by connecting seminal studies of human motivation and addressing their limitations. Even though the theory is heavily influenced by Hull (1943) and Murray (1938), it differs from these two theories because self-determined motivation is more concerned with whether or not the need was satisfied rather than the strength of the need and sees the need as innately psychological, not physiological (Deci & Ryan, 2000/2014). As an improvement to Maslow's theory, SDT offers no hierarchy of needs satisfaction, which means that they can be gratified at any time because needs that are higher up are assumed to actually be satisfied even to the detriment of lower-level needs (Deci & Ryan, 1985/2000). According to Gagné and Panaccio (2014), the theory of self-determination is an improvement to needs theories because "SDT has been more careful and systematic in crafting testable propositions and basing them on empirical research" (p. 168).

Within the context of work motivation, it is also important to discuss one of the major expansions offered by self-determination theory over other mechanistic theories of human motivation. SDT offers a range of four distinct extrinsic typologies that set the theory apart – *integrated, identified, introjected, and external* motivation. Each varies in the degree that behaviors are either controlled by others *or* self-determined by the individual (Deci & Ryan, 2000/2014). Thus, SDT recognizes not all behaviors are motivated by one’s own volition and not all externally induced actions are void of autonomous decision making. For instance, the degree of self-determination is less autonomous when a faculty member makes the decision to read a recommended article by an esteemed colleague. In this example the pressure to fulfill competency and relatedness needs is influenced by an extrinsic source and becomes internalized. Thus, making this motivation extrinsic with some degree of autonomy (Deci & Ryan, 2000). Within the context of faculty motivation, let’s examine each idiosyncratic typology. Figure 2.1 provides a visual outline of the SDT motivation continuum.

Figure 2.1. Self-Determination Continuum of Motivational Typologies



**Extrinsic motivation typologies.** *Integrated motivation* refers to the process by which engagement occurs in an activity influenced by extrinsic factors, but endorsement of the activity is based on innate needs and one's own personal standards, ethics, or morals. Integrated motivation can occur when a faculty member who already highly values student success and has previously taken proactive steps to minimize academic barriers is encouraged to participate in an early alert program. It is important to appreciate the fact that this type of motivation is still stimulated externally, even though the proposed activity or behavior is congruent with one's own personal values.

*Identified motivation* denotes an individual's willingness to identify with some extrinsic inducement based on either shared or recognized goals or values, making the activity worthwhile (Ryan & Deci, 2002). For instance, when a faculty member identifies with the need to learn how to access a cumbersome computer software program to create student progress reports for the improvement of progression rates, they are using identified motivation. In this scenario, there exists some autonomy and external job-based and social rewards for this type of edification. "People accept the regulation because the activity is judged valuable/useful and it fits their value system" (Chen, 2014, p. 741). It is important to note the locus of control or autonomous nature of the behavior is similar to intrinsic motivation but yet there is the presence of an external determinant.

*Introjected motivation* is much more controlled than the previous constructs discussed. This can occur within a relationship where feelings of responsibility regulate the actions of an individual to perform a task they do not completely associate with but have some ability to self-regulate (Deci & Ryan, 2000). Consider for example, the decision by a faculty member to participate in new student orientation simply because the department chair or a colleague uses

coercion to influence their attendance. In this scenario, the faculty member can choose to accept the task or can decline. However, external social pressures greatly limit the amount of autonomy involved in this decision-making process.

*External motivation* represents the most prominent type of controlled regulation offered by SDT (Deci & Ryan, 2000) and is “. . . the classic instance of being motivated to obtain rewards or avoid punishments” (Ryan & Deci, 2002, p.17). A likely scenario may include a faculty member’s lone desire to conduct research being thwarted by a contract that requires them to teach undergraduate students. In this example, the faculty member lacks the intrinsic interest in teaching a 100- or 200-level course, one that they feel is beneath their level of expertise and encroaches on their research time. However, the need for compensation, promotion, and tenure at the institution are contingencies that motivate the faculty member to teach an undergraduate introductory course.

*Amotivation* refers to an individual’s lack of interest or apathy towards a particular behavior or action-state. “Amotivation is characterized by non-regulation and represents a perception that the behavior will not bring about a desired outcome” (Gunnell & Gaudreau, 2015, p.36). While amotivation is a construct that warrants further study, research shows that both intrinsic and extrinsic motivation are diminished when, for example, employees are given negative feedback, experience feelings of burnout, or cannot attach value to the task (Deci & Ryan, 1985; Gagné & Deci, 2005; Van den Broeck, Vansteenkiste, De Witte, & Lens, 2008). New academic deans working with tenured faculty, can attest to the difficulty often faced when attempting to motivate experienced employees to change course or strategy. Faculty members will legitimately question the value-added to their work and the long-term benefits of externally induced changes to their self-determined goals.

## **Self-Determination and Work Motivation Studies**

Over the last forty years, self-determination theory has produced hundreds of experimental studies, contributing prominently across numerous fields and cultural studies (see Chen, 2014; Deci, Ryan, Gagne', Leone, Usunov, & Kornazheva, 2001; Gagné, Forest, Gilbert, Aubé, Morin, & Malorni, 2010; Vallerand & Bissonnette, 1992). Although SDT has been typically associated with research on health (Lee & Kim, 2013; Ng, Ntoumanis, Thøgersen-Ntoumani, Deci, Ryan, Duda, & Williams, 2012; Williams, Grow, Freedman, Ryan, & Deci, 1996), education (Hagger, & Chatzisarantis, 2015; Ratelle & Duchesne, 2014; Vallerand & Bissonnette, 1992), parenting (Grolnick & Ryan, 1989; Soenens, Vansteenkiste, & Van Petegem, 2014), and sports research (Frederick-Recascino & Schuster-Smith, 2003; Longsdale, Hodge, & Rose, 2009; Power, Ullrich-French, Steele, Daratha, & Binder, 2011), more recently studies have emerged that investigate the theories tenants of needs satisfaction and applies them to work motivation (Adams, 2014; Chen & Bozeman, 2013; Gagné et al., 2010).

Work motivation literature utilizing SDT reports significant findings. First, the literature tells us that specific autonomous supportive job features, such as self-determined management orientations, positive feedback, and the relevance of the work, are positively linked to increased trust, creativity, and self-esteem (Deci, Connell, & Ryan, 1989; Gillet et al., 2013). Studies have also shown a causal link between autonomous self-determined motivation and higher levels of job related outcomes including, job involvement (Chen, 2014), job satisfaction (Lam & Gurland 2008; Richer, Blanchard, & Vallerand, 2002), and citizenship behaviors (Dysvik & Kuvass, 2008). In other words, employees are typically more productive and experience higher levels of positive well-being when acting from a place of volition rather than external regulation. Research also supports the basic idiosyncratic nature of SDT constructs, demonstrating that



intrinsic motivation is indeed distinctive when compared to the other four extrinsic typologies (Guntert, 2015).

Next, cross-cultural studies of job satisfaction support the assumptions of SDT's psychological needs towards employee well-being. For example, Economists Alfonso Sousa-Poza and Andrés Sousa-Poza (2000) utilized data gathered from the 1997 International Social Survey Program (ISSP) on Work Orientations to investigate the factors influencing job satisfaction. To do so, the authors used a comparative cross-national study of 21 countries spanning four continents. Their research found many employees among these countries: 1) have higher levels of outputs linked with increased levels of job satisfaction; and 2) do not consistently associate a "well-paying job" with job satisfaction. The implications of the study include creating environments that engage employees in stimulating autonomous work and offer collegial relationships with management. Deci, et al. (2001) using a structural equation modeling technique, tested the assumptions of SDT among nearly 500 employees from 10 Bulgarian state operated companies. The public Bulgarian employees were compared with approximately 100 American employees from a private management firm. Results of the study revealed the universal nature of the psychological needs for autonomy, competency, and relatedness as conditions for employee well-being.

Self-determination studies have also demonstrated that autonomous motivation is a better predictor of goal progress when compared to controlled motivation (Koestner, Otis, Powers, Pelletier, & Gagnon, 2008). Conversely, controlled motivation is related to higher levels of stress (Dysvik & Kuvass, 2008), burnout (Lonsdale, Hodge, & Rose, 2009), and turnover intentions (Otis & Pelletier, 2005). However, Koestner, et al. (2008) reported that autonomous and controlled motivation are not dichotomous opposites and are not "significantly negatively

related to each other” but rather weakly related positively (p.1203). This provides further support for one of the key assumptions of SDT – degrees of extrinsic motivation includes autonomous and controlled motivators. Koestner, et al. (2008) concluded that greater levels of employee autonomy should be pursued by management and employees over the pursuit of eliminating externally controlled inducements.

Finally, SDT has been used across the three sectors of public, for-profit, and nonprofit demonstrating the importance of both intrinsic and extrinsic factors. For instance, Chen and Bozeman’s (2013) research identifies several “cross-sector comparison studies” that have consistently demonstrated the presence of externally motivated goals of “job security, pay, and promotion” for public managers (p. 585). Kuvaas’ (2009) examination of 593 public sector bankers showed that intrinsic motivation regulates the connection between an employee’s performance appraisal satisfaction and their job performance. The author concludes that self-determined individuals are less impacted by positive praise and are more sensitive to external determinants when compared with their more externally regulated peers. A study by Deckop, Giacalone, and Jurkiewicz (2015) showed that an increased emphasis on materialism negatively impacts the subjective well-being of employees and their organizational citizenship behaviors. Further, their research did not demonstrate support for the rational model that materialistic rewards significantly impact task performance.

Chen’s (2014) findings, using data from the National Administrative Studies Project (NASP-III) to examine nonprofit manager’s motivational tendencies through the lens of SDT, support the argument that motivational styles fall within the SDT typologies and that extrinsic motivation is present and stronger than what has previously been assumed from nonprofit managers. Baard (1994) applied the theory of SDT within a church setting and found similar

results. Word and Brown (in progress) using structural equation modeling, reported a significant positive association between intrinsic motivation and employee satisfaction and job involvement. Additionally, the study showed the more extrinsically controlled integrated motivation was associated with turnover intentions. However, findings did not support the hypothesis that intrinsic motivation would be negatively associated with amotivation suggesting that extrinsic factors do play an important role in nonprofit employee motivation. Similar findings were reported by Kim and Lee (2007) and Brown and Yoshioka (2003) underscoring the fact that disappointment with monetary incentives can negatively impact the relationship between an employee's attachment to the mission and their intentions to stay (Word & Brown, in progress).

### **Faculty Motivation**

Utilizing self-determination theory, the research literature is presently deficient in terms of empirical, practical, and comparative understanding of faculty motivation across the public and nonprofit sectors of higher education. The vast majority of motivational studies come from K-12 focusing on teachers and students (Bailey, 1999; Visser-Wijnveen, Stes, & Van Petegem, 2012). Studies within higher education typically apply a dichotomous theory for explaining motivation dominated by a narrow examination of singular factors, such as a faculty members motivation to teach (Cook, Ley, Crawford, & Warner, 2009; MacFarlane & Hughes, 2009; Visser-Wijnveen, Stes, & Van Petegem, 2012) or their motivation to conduct research (Bailey, 1999; Bentley & Kyvik, 2013; Lechuga, 2012). Still other studies have examined faculty autonomy, job satisfaction, job involvement, turnover intentions, and organizational perceptions (Boyer, 1990; Castiglia, 2006; Johnsrud & Rosser, 2002; Lechuga, 2012; Austin & Rice, 1988). Since most studies do not examine the differences between public and nonprofit faculty, the

following represents examples from the literature on faculty motivation irrespective of theory and sector.

In a study examining motivation among tenured and tenured-track Science, Technology, Engineering, and Mathematics faculty, Bozeman and Gaughan (2011) report factors influencing job satisfaction are related to competency, colleague relatedness, and a sense of equitable compensation. Austin and Rice (1988) conducted a series of qualitative case studies that examined faculty satisfaction at 10 “exemplary” small nonprofit liberal arts colleges (p.55). Significant among their findings, the authors identified four key contributors to faculty satisfaction among the institutions: 1) they had nurturing cultures for the success of academic faculty, 2) administrators tended towards collaborative leadership styles of shared decision making that increased faculty autonomy, 3) each college held to a progressive forward thinking growth mindset that encouraged feelings of competency, and 4) faculty felt a significant sense of relatedness to the institution. Their findings support Deci and Ryan’s (1985) three innate psychological needs.

When faculty are autonomously supported by the administration, there is evidence that they pay it forward to students. A study by Black and Deci (2000) examined autonomous motivation among undergraduate chemistry students and their perceptions of autonomy-supportive behaviors of their faculty member. The researchers assumed course enrollment was autonomous and faculty members who demonstrated more autonomously supportive behaviors would result in “greater perceived competence and interest/enjoyment” for the course and “to less chemistry-related anxiety and grade orientation” (p.744). The study reported significant findings for student course performance as predictive by the faculty member’s autonomy supportive behaviors. This was especially true for students who entered the course “low in

autonomous self-regulation” (p.740). These results are consistent with other research examining the positive effects of autonomy (Grolnick & Ryan, 1989; Ryan & Deci, 2000; Vallerand & Bissonnette, 1992; Williams & Deci, 1996).

In a national report examining faculty perspectives and the changing state of higher education, Boyer (1990) reports a disconnect between faculty intrinsic goals, the institutional priorities, and reward systems. Boyer demonstrates that while faculty continue to place a heavy emphasis on teaching as their primary motivation, there is growing concern with the “narrowing” and “restricting” of rewards systems change the initial intrinsic motivation of faculty towards one of merely focusing on the number of peer-reviewed publications (p.32). “Research and publication have become the primary means by which most professors achieve academic status, and yet many academics are, in fact, drawn to the profession precisely because of their love for teaching or for service . . .” (p. xii).

Bentley and Kyvik (2013) reported findings from 13 countries using a subset of 7,117 full-time faculty from the Changing Academic Profession (2007/2008) international survey data. Their results strongly support Cole and Cole’s (1973) “sacred spark” theory suggesting faculty who spend the most time performing research are motivated by an innate intrinsic desire towards this type of activity. This was true even when accounting for covariates such as faculty past publication funding and research qualifications. Conversely, similar to Boyer (1990), Schuster and Finkelstein’s (2006) longitudinal national faculty survey found research and publishing is largely influenced by an extrinsic desire for tenure and promotion. Lechuga (2012) reported findings from a qualitative study examining intentions to conduct research by Latino faculty members working within the STEM fields. Using the three innate human needs of self-

determination theory, Lechuga (2012) found relatedness and competency were important factors determining the degree to which Latino faculty engaged in research.

Johnsrud and Rosser (2002), showed that faculty work life, morale, and attrition were associated with a variety of variables which combine to impact the faculty members' overall perception of the organization, such as their sense of institutional support in the form of "professional priorities and rewards", "administrative relations", and individual characteristics (p.536). Had the authors used self-determination theory they likely would have described the findings as associated to the degree to which the faculty needs were thwarted or supported by the institution. Rosser (2004), using a subset of data (n=12,755) from the 1999 National Study of Postsecondary Faculty, reported that faculty perceptions of their work environments (e.g., administrative backing) played a key role in turnover intentions and their overall job satisfaction.

Castiglia (2006) conducted a person-organizational fit mixed-methods study of a nonprofit college to investigate the impact of the corporate model upon higher education faculty. The college was selected because it had undergone a recent organizational shift to a more externally business-like model of resource acquisition, accountability structures, and strategic planning processes. The dependent variables of job involvement, job satisfaction, and organizational commitment were examined along with a structured interview. Results of the study revealed faculty at the private college were highly satisfied with their work but less committed to the institution. Meaning, external pressures may not always diminish job satisfaction but instead can negatively impact compatibility (i.e., person-organization fit) with the institution and can undermine service and create turnover intentions. However, it is important to mention the serious limitations of this study. The Q-sort survey used is a business survey and was given to academic faculty. Since the survey was not tailored specifically for

academic faculty, key terms used in the questionnaire were subjectively inferred by each individual participant. Further, the generalizability of this study is limited based on the examination of one small private college.

### **Public and Nonprofit Higher Education**

The impact of corporatized higher education upon intrinsic motivation and other important job factors may be felt differently between nonprofit private and public research university faculty. Yet, there is little research that compares the two groups. Since this study attempts to fill that gap, the following section will provide a comparison and contrast between these two sectors and tie it into recent studies of publicness and the blurring of sector lines relative to higher education.

### **Early History of Higher Education**

With the establishment of Harvard College in 1636, the history of U.S. higher education dates back over three centuries (Morison, 1946). The early private nonprofit universities were initially designed for the purpose of “educating civic leaders and preparing a learned clergy” (Lucas, 2006, p.105). Chartered with a similar social purpose, the first public institutions were established in the late 1700’s. The Morrill Land-Grant College Act of 1862 using public funds to launch land-grant state universities (Lucas, 2006) would further advance the countries early belief in the public good of higher education. Both sectors share similarities and differences that are essential to highlight when considering the corporatization of higher education and faculty motivation.

### **Sector Similarities**

As noted by other scholars, modern-day nonprofit and public universities continue to be in many ways indistinguishable (Carnoy, et al., 2014; Denison, Fowles, & Moddy, 2014). First,

from a historical context, both private and nonprofits can be classified under the framework of publicness (Moulton, 2009). Within the context of higher education, publicness is described as the degree to which an institution is politically governed and its ability to “produce goods or outcomes that benefit the public” (Bozeman & Bretschneider, 1994; Feeney & Welch, 2012, p. 272). In other words, higher education was initially viewed through a political-social public value lens and means by which the state can improve the condition of society (see Carnoy, et al., 2014; Moulton, 2009). This is due in large part to the original belief that public and private sectors of higher education offer the ability to address public problems the market alone is unable to correct (Feeney & Welch, 2012). Thus, both nonprofit and public universities benefit financially from tax exemptions (Denison, Fowles, & Moddy, 2014). Carnoy, et al (2014) describes the similarities of the two sectors of higher education as being “shaped through the political prism of the state” (p.374).

Second, public and private nonprofit institutions share a common internal organizational structure that includes a similar hierarchy of board, president, provost, academic affairs, student affairs, and fiscal management, among other commonly held offices, titles, and roles (Denison, Fowles, & Moddy, 2014; Gumport, 1997; Lucas, 2006). These structures now include corporate models such as business-based accountability matrixes and governing boards often comprised of business elites who direct the vision and mission. These business elites determine the corporate imperative within the organization and direction of universities.

Third, because public and private institutions share a common pool of financial resources, the competition between institutions for the same students is fierce (Pollack, 2000; Regens & Thomas, 1992). This competition leads institutions to build multi-million dollar recreation



centers, luxurious residence halls, food courts, and athletic stadiums to stay ahead of their rivals (Schrecker, 2010).

Finally, and most notably, despite a common accountability to the public and local community, both nonprofit and public universities commonly abandon their societal purpose by mimicking corporate values, policies, and strategic plans to recruit and retain paying customers (Barrow, 2010; Schrecker, 2010). Predictably, corporate-minded Regents and Trustees base the institutions direction on competitive market principles that focuses on strategic planning to increase revenue (Barrow, 2010) and institutional prestige (Boyer, 1990). This results in the hiring of business savvy Presidents whose primary role is to secure large donations (Lucas, 2006). The end game for universities becomes increasing enrollments, numbers of degrees, and fiscal diversification. Naturally, increasing professional and other non-faculty staff needed to perform burgeoning administrative functions becomes a priority. Lucas (2006) adroitly describes the current university structure as administrative “bureaucratization” flowing from a “business ethos” (p.199).

These and many more examples illustrate the corporate influence and the blurring of sector lines between nonprofit private and public universities. More notably, it leads one to question the “publicness” of the current state of U.S. higher education (Bozeman & Bretschneider, 1994; Moulton, 2009) and to the realization of unwanted externalities. Poor graduation rates, mission-drift, and an obsession with bottom-line fiscal affairs that treat faculty as commodities represent grave educational trade-offs associated with the corporate model’s for-profit value system and diminishes the public good of universities. What is comparatively and empirically unknown is how these changes to the working environment and institutional values impact academic faculty who provide the primary service (Boyer, 1990). Furthermore, how does

a societal focus towards individualism impact academic faculty intrinsic motivation or their connection to the university.

### **Sector Differences**

Yet, despite the blurring of the sectors, research suggests employee motivation is based on numerous factors that will differ between public and nonprofit employees (Cotton & Tuttle, 1986; Finkelstein, 1984; Smart, 1990). From the very beginning, private nonprofits were heavily influenced by philanthropic and religious ideologies that aided in the accumulation of large present-day financial endowments (Thelin & Trollinger, 2014). Conversely, public universities are funded by tax-payer dollars and are therefore held to more public scrutiny and external accountability from policymakers (Denison, Fowles, & Moddy, 2014). Private universities have historically been more selective to insure the Carnegie Foundation prestige and monetary resources that follow (Cheslock, 2005) and public universities less tied to religiosity and “are subject to a greater degree of direct external control” (Denison, Fowles, & Moddy, 2014, p.86).

Private nonprofit faculty benefit from the fact that nonprofit private colleges and universities typically have smaller student-to-faculty ratios, often offer a small campus environment with the financial backing that can exceed major flagship public universities, and are less prone to suffer from the anxiety of budget cut-backs that impact faculty lines and overall work environment. Larger class-sizes, larger advising caseloads, and diminishing appropriations for professional development presents some unique aspects of the faculty work environment for public institutions. Smart (1990) concludes that demographic factors, institutional characteristics, and institutional types are key determinants when studying faculty motivation.

## **Faculty Motivation Research Significance**

Within the backdrop of corporatized higher education, research on faculty motivation improves our understanding of how to create an institutional culture supportive of faculty that can increase job involvement and commitment to the university. Since faculty remain the indispensable and primary conductors of teaching and research for institutions of higher education, more scholarship must be conducted to better grasp the latent impact of corporatization upon a profession that is commonly understood as intrinsically driven. With increased pressures mounting from state officials, the general public, and current students, institutions of higher education must recognize and apply motivational research findings to achieve institutional and externally regulated goals. Considering the fact that faculty are drawn to the self-determined nature of teaching and research (Bentley & Kyvik, 2013), the external locus of control of corporate practices means a collision of two divergent worlds. The outcome of this collision will likely decide the future of the academy. Self-determination theory is especially relevant to the topic of faculty motivation as it offers a framework to examine the role basic psychological needs play within a university environment.

## **Contribution to Self-Determination Theory**

This study hopes to expand our understanding of self-determination theory within faculty motivation studies, offers comparative motivational data between nonprofit and public academic faculty, and quantitatively examines corporatization. Research is needed to better account for the impact of the current corporatized landscape of higher education upon public and nonprofit faculty who are employed to achieve higher education goals. At present, using self-determination theory, there exists a lack of quantitative research that offers a comparative

baseline of faculty motivation across the two sectors. Adam's (2014) exploratory qualitative dissertation of faculty motivation and student engagement provides the closest examination.

Adams (2014) interviewed 15 academic faculty to observe the relationship between faculty motivation and student engagement under the corporate model. Similar to other SDT studies (Gagné & Deci, 2005), Adams' work proposes a link between the fulfillment of the innate psychological needs of autonomy, competency, and relatedness with overall job performance and satisfaction. Faculty observations from the study suggest the corporate model does have a negative impact on autonomous faculty motivation. Specifically, faculty reported the locus of control for their teaching environment (such as their ability to change curriculum) was too often at the discretion of administrators with little thought of including faculty in the decision making process. This decreased the faculty member's job satisfaction and thwarted their self-determined needs for autonomy, competency, and relatedness. She concludes that, "changes in the higher education institutions to an increasingly corporate-like paradigm have contributed to the amotivation of faculty to teach" (p.102). As noted by the author, this study is limited based on its small sample size (n=15 faculty) drawn mainly from for-profit institutions. Thus, the study relies too heavily on a sector of higher education that is fundamentally based on the corporate principles of supply and demand. Further, the study does not offer a comparison of faculty motivation across nonprofit and public institutions of higher education which share a similar mission and history.

### **Methodological Approach**

The literature review concludes by briefly identifying the methodological approach selected for this quantitative study that extends prior research on self-determination theory and presents a possible measurement tool for the phenomenon of corporatization. Using self-

reported data from 768 academic faculty across eight research universities, the four primary goals of this research are: 1) compare faculty self-determined motivation and sense of corporatization between the public and private nonprofit sectors of higher education; 2) determine how the three basic psychological needs of SDT impact faculty attitudes towards their job and the institution; 3) determine if corporatization directly impacts job involvement and intentions to leave; and 4) discover if self-determined motivation mediates the impact of corporatization. The three basic innate needs of self-determination theory and the construct corporatization were used as the independent variables. Job involvement and intentions to leave were used as the two dependent variables. Type of institution, gender, and ethnicity were examined as moderating variables through a multi group analysis. A Qualtrics online faculty motivation survey was developed and implemented as the research tool. Finally, the causal pathways hypothesized were examined using structural equation modeling (SEM).

## **Chapter 3: Methodology**

This quantitative cross-sectional study extends prior research on self-determination theory under the backdrop of corporatized higher education examining university faculty between two sectors. Chapter 3 describes the study's design exploring the primary research questions driving this dissertation.

### **Inferential Research Questions**

- 1) What differences, if any, exist in the fulfillment of basic psychological needs and experiences of corporatization between the public and nonprofit sectors academic faculty?
- 2) How does corporatization directly impact job involvement and intentions to leave?
- 3) What role do the three innate psychological needs of SDT play in faculty job involvement and turnover intentions?
- 4) Do the three innate psychological needs of SDT mediate the impact of corporatization?

### **Hypotheses**

Past work motivation research using SDT has demonstrated that specific autonomous supportive job features, such as self-directed tasks, positive feedback, and the relevance of the work, are positively linked to increased trust, creativity, and self-esteem (see Chen, 2014; Deci, Connell, & Ryan, 1989; Deci & Ryan, 2000; Gagné & Deci, 2005; Gillet et al., 2013). Past research has also demonstrated that diminished autonomy and locus of control are important factors that can weaken intrinsic motivation (Gagné & Deci, 2005). Under the current climate, public employees may be particularly vulnerable to work environments that frustrate intrinsic motivation and over emphasize external motivators (Light, 2002; Rousseau, 1995; Word & Brown, in progress). Scholars have also reported that job satisfaction for faculty is a product of

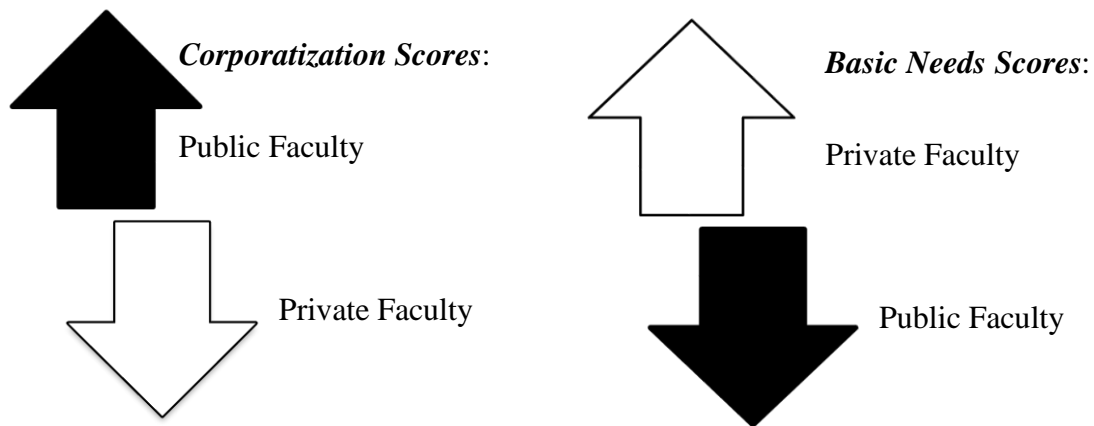
shared decision making models, institutional support, sense of relatedness, and feelings of competency (see Black & Deci, 2000; Johnsrud & Rosser, 2002; Austin & Rice, 1988). Moreover, these self-determined qualities tend to positively impact student learning outcomes (Black & Deci, 2000). Based on these factors, and the problems already acknowledged with corporatized higher education, the following sections identify the hypotheses and the statistical procedures used followed by the proposed conceptual model (See Figures 3.1 – 3.4).

### **Hypotheses for Comparing Nonprofit and Public Institutions**

H<sub>1</sub>: Corporatization scores for academic faculty at a public research university will be significantly higher than their peers at a private nonprofit research university.

H<sub>2</sub>: Self-determined basic need scores for academic faculty at a private nonprofit research university will be significantly higher than from their peers at a public research university.

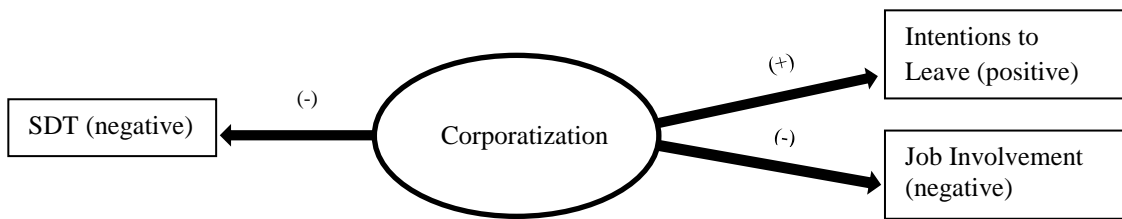
Figure 3.1. Conceptual Model for Institutional Type Group Differences



### Hypotheses for Corporatization and Basic Needs for Self-Determined Motivation

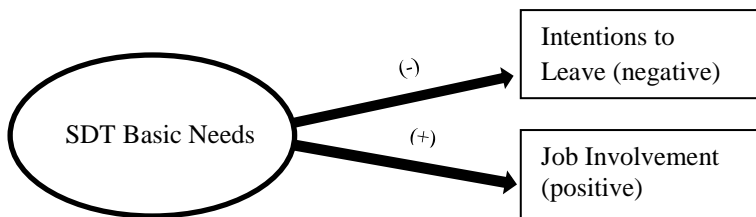
H<sub>3</sub>: Faculty members who score high on corporatization scores will be associated with higher scores for intentions to leave and lower scores for job involvement and the fulfillment of basic psychological needs.

Figure 3.2. Conceptual Model for Corporatization's Impact on Dependent Variables



H<sub>4</sub>: Faculty members who score high in autonomy, competency, and relatedness will be positively associated with faculty job involvement and negatively associated with intentions to leave.

Figure 3.3. Conceptual Model for SDT's Impact on Dependent Variables





### Hypothesis for Potential Mediation Effect

H<sub>5</sub>: The relationship between corporatization and job involvement and intention to leave will be mediated by self-determined motivation. The higher the self-determined scores are the less corporatization will impact faculty.

Figure 3.4. Conceptual Model for Proposed Mediation Effect



### Research Design

A faculty motivation survey was developed and implemented as the methodological tool for the purpose of answering the research questions. The study included the following constructs: self-determination theories' three innate needs (i.e., autonomy, competency, and relatedness) were examined as an exogenous latent variable, endogenous criterion variable, and a mediating variable; corporatized higher education as an exogenous latent variable; three moderating group variables gender (i.e., male or female), ethnicity (i.e., white/Caucasian or other ethnicity), and institutional type (i.e., nonprofit private or public); and age was employed as a control variable within the structural equation models. Job involvement and intentions to leave one's job served as the two dependent variables.

## **Participants**

In order to improve the generalizability of the research, the sample population of 768 participants comes from a large pool of 4,520 tenured or tenured-track faculty. Participants come from eight research universities (four private nonprofit and four public) across the U.S. who shared common demographics and institutional attributes. Comparisons between the universities were conducted prior to their selection using a common data set and IPEDS information for the 2014-2015 academic year. All are easily accessible at each institutional website. Factors considered included the following: 1) total enrollments; 2) research high Carnegie classification; 3) ethnicity of students and faculty; 4) number of in-state vs. out-of-state students; 5) retention and graduation rates; and 6) student-to-faculty ratios. The faculty type of assistant, associate, and professor were identified within the faculty and staff directories, their emails copied and pasted into an excel spreadsheet. The excel spreadsheet was used to store the emails for survey distribution.

Even though this study is a cross-sectional analysis, assessing faculty motivation and their potential institutional differences within the corporate model of higher education requires the consideration of length of time at the institution. The faculty outcomes associated with this study take time as does experiencing the fulfillment or thwarting of basic psychological needs. For this reason, faculty with less than one year at their institutions were not included in the study. Moreover, because Provosts, Vice-Provosts, Deans, Chairs, and Directors have a significant administrative function within their jobs, this study of employee motivation classified this group as “supervisory/management” and excluded this population of faculty from the participant pool.

## **Procedure**

In the spring semester of 2016, 4,544 academic faculty employed at eight U.S. universities were sent an initial invite email followed by two reminders to participate. Following

the recommendations of Schaefer and Dillman (1998) regarding development of email surveys, reminders were emailed six days and then again 20 days following the initial contact. A consent form explaining the purpose of the study and contribution to the field of motivation research was included in the email along with demographic questions. Faculty respondents were asked to self-report their institution, indicate the number of years they were full-time employees at the institution, and were asked to confirm they were either assistant, associate, or professors. Faculty were not asked to provide their names, department, or other easily identifiable information making the survey anonymous and increasing the likelihood of genuine responses. Considering the nature of the topic and questions asked about their feelings towards their work and institution, anonymity was an important feature of the study and was identified as such within the informed consent.

Since academic faculty have assigned university email addresses that are publically accessible and are frequent users of this mode of communication a web-based version of the survey was created using Qualtrics. Even though an email survey is a convenient, timely, and cost-effective way of capturing faculty responses, it offers the problematic issue of low response rates. Research has clearly demonstrated the rate of response to mail surveys is still superior to email surveys by a range of 11-20 percent (Fan & Yan, 2009; Shih & Fan, 2009). This study attempts to address this issue by using a series of email notices (e.g., reminders) as recommended by the literature (Fan & Yan, 2009; Fox, Schwartz, & Hart, 2006; Schaefer & Dillman, 1998; Shih & Fan, 2009). Specifically, three independent studies examining response rates of surveys (Kaplowitz, Hadlock, & Levine, 2004; Mehta & Sivadas, 1995; Schaefer & Dillman, 1998) discovered ( $p < .05$ ) stronger response rates for web-based surveys are achieved by sending out an initial request to participate followed by subsequent reminders. It was assumed that an initial

email sent with less formalized language may be useful in quickly and clearly outlining the importance of the research in a way that is less tedious, more appealing to academic faculty, and utilizes a communication instrument used by the population with great frequency.

Another advantage to employing a web-based survey is that it offers a lower nonresponse rate as noted by Schaefer and Dillman's (1998) chi-square analyses comparing email vs. paper surveys. Further, when comparing web-surveys to the more classic phone and paper surveys, Guiffrida, Lynch, Wall, and Abel (2013) describe the benefits of using a web-based survey noting the ability to increase the overall sample pool, ease of access, decreased completion time, and potential reduction of participant fatigue. Most importantly, "sampling bias" is reduced since all faculty at each institution have access to the internet and an institutional email address that is checked regularly (p.125).

### **Instrument Design**

The measurement scales used to examine the observed variables were continuously distributed interval-level Likert scales. The structure of the survey consisted of three distinct instruments previously used in past research on employee motivation: 1) SDT's Basic Psychological Needs at Work Scale (BPNWS; see Baard, Deci, & Ryan, 2004) adapted for use with academic faculty; 2) Kanungo's (1982) Job Involvement Scale (JIQ); and 3) Intentions to Leave questions developed by Hohman, Packard, Finnegan, & Jones (2013). A fourth set of questions attempted to measure a faculty member's perception and attitude towards the deployment of corporate business practices within higher education. Faculty productivity questions developed by Feeney and Welch (2012) were also included in the survey along with demographic and faculty type questions. Permission to use each scale was granted and can be

found in Appendix C. The following section outlines in more detail the primary measurement scales of interest.

### **Basic Psychological Needs at Work Scale (BPNWS)**

One of the main latent variables was derived from the BPNWS, an established 21-item questionnaire measuring the satisfaction of employee autonomy, competency, and relatedness needs (Brien, et al., 2012). Autonomy looks to what degree a faculty member feels their choices are self-determined or externally controlled by others. As discussed in the first two chapters, numerous motivation studies have consistently demonstrated that autonomous motivation leads to higher levels of affect across a number of settings, including work (Deci & Ryan, 2008). Whereas competency can be best understood in terms of “feeling effective in one’s ongoing interactions with the social environment and experiencing opportunities to exercise and express one’s capacities” (Deci & Ryan, 2002, p.7). The third essential need postulated by SDT, relatedness, is defined as “feeling connected to others, to caring for and being cared for by those others, to having a sense of belongingness both with other individuals and with one’s community (Baumeister & Leary, 1995; Bowlby, 1979; Harlow, 1950; Ryan, 1995)” (Deci & Ryan, 2002, p.7).

The BPNWS uses a Likert-type scale asking employees to rate their feelings about their current job over the course of the year where 1 is “strongly disagree”, 4 is “neutral”, and 7 is “strongly agree”. The scoring of the BPNWS is typically handled by factoring in reverse scoring for nine questions and then calculating the average score for the three basic need subscales. In order to adapt the survey for use with academic faculty, minor modifications were made (e.g., added the terms “university” and “faculty”) and the scores were not averaged across for a cumulative score but each factor was left independently to explore the factor loadings of each

question. The original BPNWS is easily accessible on the Self-Determination Theory website (see <http://www.selfdeterminationtheory.org/>).

The following maps out the questions for each construct used to assess the basic psychological needs of faculty:

*Autonomy Questions*

“At my university, I feel a sense of choice and freedom in the work I undertake.”

“I feel pressured as a faculty member.” (Reversed)

“I am free to express my ideas and opinions as a faculty member at my university.”

“As a faculty member at my university, I have to do what I am told.” (Reversed)

“My feelings as a faculty member are taken into consideration at my university.”

“I feel like I can pretty much be myself at work.”

“There is not much opportunity for me to decide for myself how to go about my work.”

(Reversed)

*Competency Questions*

“I do not feel very competent when I am working at my university.” (Reversed)

“People at my university tell me I am good at what I do.”

“I have been able to learn interesting new skills as a faculty member at my university.”

“Most days I feel a sense of accomplishment from working.”

“As a faculty member, I do not get much of a chance to show how capable I am.” (Reversed)

“When I am working I often do not feel very capable.” (Reversed)

*Relatedness Questions*

“I really like the people I work with.”

“I get along with people I work with.”

“I pretty much keep to myself when I am working at my university.” (Reversed)

“I consider the people I work with to be my friends.”

“People at my university care about me.”

“There are not many people at my university that I am close to.” (Reversed)

“The people I work with at my university do not seem to like me much.” (Reversed)

“People at my university are pretty friendly towards me.”

### **Corporatized Higher Education (Corp)**

To assess a faculty member’s perception of corporate business practices within higher education, ten questions were developed using a 7-point Likert scale where 1 is “strongly disagree”, 4 is “neither agree nor disagree”, and 7 is “strongly agree”. After reverse coding three questions, a higher score for each factor represents a higher perceived experience with corporatization for that question. The scale was developed based on the construct and five themes that emerged from the literature on corporatization. These five themes are outlined in Table 3.1 along with two questions developed for each subconstruct and three authors that discuss each theme. Steck (2003), in *The Annals of the American Academy of Political and Social Science*, provides a nice summary of the literature when defining the corporatized university as “. . . characterized by the entry of the university into marketplace relationships and by the use of market strategies in university decision making.” (p.74).

Table 3.1. Development of Corporatization Measurement Scale

Corporatization's Emergent Themes	Evidences within Literature	Question #1	Question #2
Mission change	Bose (2012) Labaree (1997) Schuster & Finkelstein (2006)	"The university is no longer considered a social institution but instead seen as an industry."	"An important role of higher education is to serve the needs of society. My university is currently driven by that mission." (Reverse coded)
Infusion of external determinants	Bess (1998) Schrecker (2010) Steck (2003)	"There is increasing pressure within my College or department to adopt practices that make it more self-sufficient."	"In my College, as one way to remain cost-effective, departments with fewer students are considered less of a priority."
Corporate models	Barrow (2010) Gumport (1997) Bose (2012)	"My College Dean tends to make most decisions based on external exigencies (e.g., financial motivators) rather than what's best for student learning."	"The university is run more like a business focusing on accountability structures that measure inputs and outputs."
Prestige and rankings	Boyer (1990) O'Malley (2014) Schrecker (2010)	"My College sees research mainly as a catalyst for generating positive marketability for its programs."	"My department or College emphasizes research as a way to increase its national rankings (e.g., prestige)."
Transformation of professorate	Fink (2008) Goldstene (2015) Schrecker (2010)	"The current environment of higher education is supportive of tenured or tenure-track faculty." (Reverse coded)	"Shared governance is often practiced in my College." (Reverse coded)



## **Job Involvement Questionnaire (JIQ)**

To determine the outcome (dependent) variables, Kanungo's (1982) Job Involvement Questionnaire (JIQ) is the first of two primary criterion scales used in this study. The JIQ employs 10 questions using a 5-point Likert scale where 1 is "strongly disagree", 3 is "neither agree nor disagree", and 5 is "strongly agree". The tool is designed to examine the psychological identification and needs satisfaction of an employee to their job discriminate from their overall organizational identification which is considered "more a matter of past socialization" and "a culturally conditioned normative belief" (Kanungo, 1982, p. 347). For the purposes of this study, job involvement, a unidimensional construct, is operationally defined as "an individual's psychological identification with a particular job (or work in general)" (Kanungo, 1982, p.342). An overall job involvement score is typically derived by summing the total for the 10 questions of the JIQ after accounting for two reverse scored items. A higher score represents a higher perceived level of job involvement. For this research, scores for the ten factors were not summed into an additive scale, but analyzed separately when conducting the factor analyses.

Past work studies have acknowledged job involvement as a significant construct when assessing engagement and work attitudes (Blau, 1985; Moynihan & Pandey, 2007; Word & Brown, in progress). It is anticipated, employees who experience greater degrees of self-determined motivation will also experience higher productivity, commitment to the institution, and be more sensitive to changes within the larger system (Word & Brown, in progress). Kanungo's (1982) seminal work offers a reliable and valid research tool that distinctly measures job involvement and has led to other research distinguishing the construct from others that are overly influenced by a specific context or commitment to the larger organization (see Blau, 1985; Frone, Russell, & Cooper, 1995). For example, job involvement should not to be confused with job satisfaction which is less reliable and dependent on in-the-moment feelings related to

one's work (Word & Brown, in progress). In summary, using Kanungo's (1982) scale allows the study to separately measure the concept of job involvement from the other key variables within this study.

#### *Job Involvement Questions*

"The most important things that happen to me involve my present job."

"To me, my job is only a small part of who I am."

"I am very much involved personally in my job."

"I live, eat, and breathe my job."

"Most of my interests are centered around my job."

"I have very strong ties with my present job which would be very difficult to break."

"Usually I feel detached from my job."

"Most of my personal life goals are job-oriented."

"I consider my job to be very central to my existence."

"I like to be absorbed in my job most of the time."

#### **Intentions to Leave (IL)**

Employee turnover is costly to organizations and can add to inefficiencies and barriers to mission attainment. The onslaught of corporate-style external determinants upon the faculty work environment may diminish basic psychological need fulfillment and increase faculty turnover. Moreover, the current attack in some states on tenure and an inability to fill vacant faculty lines may further impact faculty retention. For this purpose, an examination of faculty intentions to stay or leave their institution is warranted.

In order to assess the second dependent variable, a Likert-type scale of four items were used to measure the faculty member's intention to leave their university or academia. The questions were adapted with permission from Hohman, Packard, Finnegan, and Jones' (2013)

work that used SDT to examine the impact of mandated furloughs on faculty motivation. Higher scores represent greater commitment by the faculty member to leave their work or the institution. Scores for the four intentions to leave questions were not summed, but analyzed independently when conducting the factor analyses.

*Intentions to Leave Questions*

“I have considered leaving my institution”

“I have considered leaving academia altogether”

“I would leave this position for another job”

“I am searching for a different full-time job”

In addition to gathering data on the independent and dependent variables, demographic variables such as age, gender, ethnicity, faculty type, and institutional type were collected. Coding for the variables consisted of the following: Age (1 = 20-29 years, 2 = 30-39 years, 3 = 40-49 years, 4 = 50-59 years, 5 = 60-69 years, 6 = 70-79 years, and 7 = 80 or over); Gender (male = 1, female = 2); institutional type (public = 0, nonprofit = 1); ethnicity (White/Caucasian = 1; Black/African American = 2; Native American or Alaskan Native = 3; Asian = 4; Pacific Islander = 5; Two or more races = 6; Some other race = 7; Don't know = 8); faculty type (assistant = 1, associate = 2, professor = 3, and other = 4); and experience at current institution (1 = less than 1, 2 = 1-2 years, 3 = 3-6 years, 4 = 7-10 years, 5 = 11-14 years, and 6 = 15 or more years).

## **Reliability Test of Internal Consistency**

Cronbach's alpha reliability (Cronbach, 1951) was examined for each scale and item using the SPSS scale reliability analysis function (results are displayed in Table 3.2).

Cronbach's alpha is a commonly used and cited test of scale reliability (Cortina, 1993; Peterson & Kim, 2013; Schmitt, 1996). According to Peterson and Kim (2013), "it is without question, the most widely used estimator of test and scale reliability in the social sciences" (p.194). While there is no single absolute threshold for a reliability score (Cortina, 1993; Schmitt, 1996), a large swath of the literature and common practice among social science research is to consider a score at or above .70 as an adequate test of reliability for most measurement scales (Connelly, 2011; Cortina, 1993; Christmann & Aelst, 2006). This is true as long as the researcher considers the length of the scale, confidence intervals, sample size, and other validity factors. Overall for this research, all four scales met high standards for internal consistency among the items and acceptable confidence intervals.

For the SDT Basic Psychological Needs at Work Scale, an overall alpha of .89 was found. Only two competency questions (i.e., 1 and 6) produced poor scores for the corrected item-total correlation just below .30. Similar to SDT's scale, the Corporatization Scale produced a respectable reliability  $\alpha = .80$ . However, when analyzing the independent item measures, corporatization question number nine was problematic. The question produced very little variance across all participants, so much so, that it was skewed, slightly kurtotic, and produced a very poor Cronbach's alpha. When item nine is deleted the Cronbach's alpha increases to  $\alpha = .84$ . This question was removed from the final model. When removing question nine, the corrected item-total correlation showed a very respectable range of correlation between .34 to .65. Finally, both the Job Involvement and Intentions to Leave Scales produced good reliability coefficients  $\alpha = .85$  and  $\alpha = .83$  and presented no issues with correlation.

Table 3.2. Test of Reliability across Scales

Scale	# of items	Cronbach's Alpha	95% Confidence Interval (CI)	
			Lower Bound	Upper Bound
BPNWS	21	.89	.88	.90
Corporatization	10	.80	.78	.82
Job Involvement	10	.85	.84	.87
Intentions to Leave	4	.83	.81	.85

### Data Collection

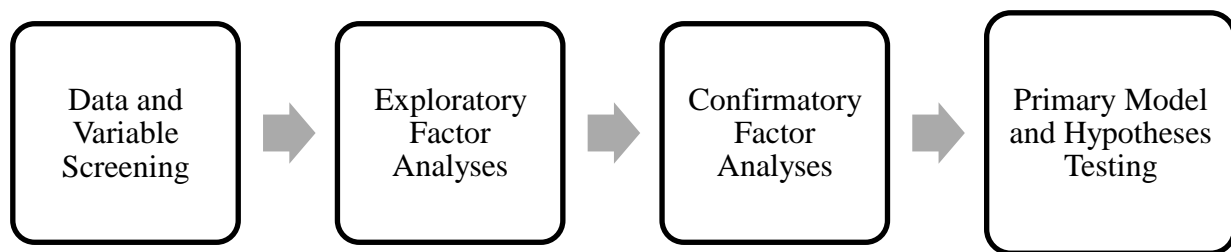
In the spring of 2016, IRB exempt status approval was obtained and all applicable protocols for conducting anonymous social science survey research were followed. The survey was distributed to 4,544 academic faculty through a Qualtrics survey designed by the researcher. The academic faculty among the eight institutions had no prior knowledge of the survey and were sent a series of three emails during the months of May and June. Faculty who opened the survey and completed the consent form were given two weeks to finish before their survey closed and data were recorded. From the original email contact to the close of the survey accounted for a maximum of 40 days. During the data collection period, Qualtrics collected 863 completed or partially completed surveys.

### Statistical Analysis

Structural equation modeling (SEM) was determined to be the most appropriate methodological tool to use when examining complicated interactions between a variety of exogenous and endogenous variables. SEM is a multivariate linear regression analysis that allows researchers to examine and test a variety of different paths and relationships among latent (e.g., unobserved) and manifest (e.g., observed) variables (Schumacker & Lomax, 2010). SEM also affords the researcher the statistical ability to test new measurement models. In this study, causal relationships are hypothesized examining the direct influence of SDT's three

psychological needs and corporatization upon faculty member's scores on intentions to leave and job involvement. Such a model has yet to be theoretically tested by previous research. SEM allows for the testing of the proposed model to determine if the data collected fits the hypothesized pathways. The following paragraphs in this section provide a narrative description of the procedures used for the statistical analysis and is accompanied by relevant tables and figures. Figure 3.5 provides a parsimonious outline of the statistical analysis employed.

Figure 3.5. Process of Statistical Analysis



### **Data Preparation**

Before any multivariate analyses were performed, the data was first reviewed and then cleaned. The present study followed the recommendations and guidelines found in the SEM literature (Byrne, 2016; Graham & Coffman, 2012; Schumacker & Lomax, 2010; Schafer & Graham, 2002) and those specifically provided by Gaskin's (2016b) online StatWiki for screening of cases and variables for structural equation modeling. SPSS and excel were the chosen computer software packages to conduct the data screening.

**Missing data.** A common factor within survey research is the realization that some questions will be left unanswered by participants, whether it be from fatigue or an unwillingness to answer that particular question. Missing data can be particularly problematic (e.g., causing

external validity issues) for structural equation modeling and must be handled thoughtfully at the data screening stage. Yet, as noted by Byrne (2016), missing data can also present opportunities for identifying interesting patterns.

There are three types of missing data one must consider: Missing Completely at Random (MCAR); Missing at Random (MAR); and Missing Not at Random (MNAR). According to Byrne (2016), MCAR “represents the most restrictive assumption” (p.394) based on the supposition that absence of data is in no way connected to specific variables within or without the study. In social science research where we explore complex human interactions, MCAR is highly unlikely because it assumes the missing data points are in no way related to other known or unknown variables that would impact the study (Marchand, 2008). The more common type of missing data is MAR where “data values on variable X are missing conditionally on other variables, but are unrelated to the values of X” (Schumacker and Lomax, 2010, p.38). The missing at random data is related to an observed variable within the study and not from some unknown missing data point (Schafer & Graham, 2002), can thus be calculated through statistical methods, and understood as “noninformative or ignorable” (p.151). However, when missing data is known to not have randomness, there is a serious issue with the missing data that cannot be ignored. In other words, the missingness is consistently related to an unobserved variable outside the study. For example, if male assistant professors, were predominantly missing values for a particular question regarding relatedness we would need to consider MNAR. We would then need to deal with this issue of non-randomness within the SEM model.

Running a frequency distribution through SPSS revealed there were indeed some variables with missing responses within the cases. Careful examination of the data using both SPSS and excel allowed the researcher to identify any patterns of missingness. Due to the fact

that no such patterns emerged, no variables had missing data above 5%, and the fact that MCAR is considered to be rare within social science research (Byrne, 2016) the missing data was estimated as MAR and not MNAR.

**Data cleaning.** Of the 863 completed or partially completed surveys, 53 respondents did not answer anything beyond the survey consent form. These cases were removed. Further, eight faculty completed the survey but indicated that they were not eligible based on faculty type (i.e., non-tenure), current position (e.g., chair), or were coming off a sabbatical or university leave from the prior year. These eight cases were also removed. Further data mining revealed that 18 faculty did not respond beyond the first 21 questions; eight did not answer any of the corporatization, productivity, and demographic questions; and eight stopped when asked to answer demographic and productivity questions. In total, 95 cases were removed from the study bringing the number from 863 to 768 completed surveys.

Of the remaining 768 cases, a frequency distribution table found missing data still remained but no variable exceeded a missing value beyond 2%. Excel was used to determine which case numbers failed to answer at least one question. In consultation with the literature, missing data for this group (n=54) was handled by using data imputation of the surrounding median scores for that variable (Byrne, 2016; Gaskin, 2016b; Schafer & Graham, 2002; Marchand, 2008; Schumacker & Lomax, 2010). Since the survey used Likert scales, SPSS was used to transform and replace missing values with the median method (Gaskin, 2016b). Further, ethnicity (n = 9) and gender (n = 3) were given missing response values of “99”.

Listwise deletion was also considered as an alternative solution to handling missing data. Listwise requires the decision to select and remove all cases where participants failed to answer at least one or more questions. Listwise deletion would have resulted in the removal of 54



additional participants and reduced the response rate of the study. The frequency distributions, parameter estimates, and reliability tests for each observed variable for the listwise deletion data set were compared with the data imputation set and resulted in no significant differences between the two sample populations even when controlling for institution type, gender, age, and ethnicity. Yet, for data that is missing at random, listwise deletion increases the potential for biases (Byrne, 2016; Gaskin, 2016b) and causes an unfortunate “loss of information on other variables selected for analysis” (Schumacker & Lomax, 2010, p.38).

For this particular data set with a large sample (N=768) and no questions with more than five missing responses, the decision to use SPSS software to conduct data imputation offers the least amount of potential measurement error and biases. Data imputation of the median scores provides the researcher with unbiased parameter estimates, the standard error, and does not limit the types of analysis (e.g., residual plots) one can run within Amos. Unlike listwise deletion, the sample size is not reduced.

**Issues of nonnormality explored.** In order to determine the potential for nonnormality issues within the data, SPSS frequency distributions were run for each variable and the output including histograms, kurtosis, and skewness were examined. The frequency distribution table from the SPSS output was copied and pasted into excel to assist with quickly identifying variables that were showing signs of being kurtotic ( $\pm 2.2$ ) or skewed ( $\pm 2.2$ ) (Gaskin, 2016b). When viewing the data, most variables were either normally distributed or some showed slight skewness positively or negatively. For all but four items, kurtosis was not a factor for the main variables of interest. Since the main factors of interest for this study were not found to have nonnormality issues, no transformation of data was performed. Ethnicity was examined as a grouping variable when running the full-latent variable model to determine if ethnicity had a

direct impact on the relationship between the predictor and criterion variables. Descriptive statistics for the four scales are presented in Tables 3.3-3.5.

Table 3.3. Descriptive Statistics for Basic Psychological Needs at Work Scale

Variables (21-Items)	M	SD	Skewness	Kurtosis	Scale Range
A1: At my university, I feel a sense of choice and freedom in the work I undertake.	5.71	1.27	-1.08	.92	1-7
R1: I really like the people I work with.	5.41	1.38	-.86	.32	1-7
C1R: I do not feel very competent when I am working at my university.	5.86	1.50	-1.58	1.77	1-7
C2: People at my university tell me I am good at what I do.	5.14	1.59	-.84	.06	1-7
A2R: I feel pressured as a faculty member.	3.38	1.80	.34	-.86	1-7
R2: I get along with people I work with.	5.80	1.14	-1.10	1.39	1-7
R3R: I pretty much keep to myself when I am working at my university.	4.46	1.70	-.23	-.84	1-7
A3: I am free to express my ideas and opinions as a faculty member at my university.	5.155	1.62	-.83	.02	1-7
R4: I consider the people I work with to be my friends.	4.57	1.48	-.33	-.40	1-7
C3: I have been able to learn interesting new skills as a faculty member at my university.	5.25	1.46	-.69	-.06	1-7
A4R: As a faculty member at my university, I have to do what I am told.	4.09	1.45	-.06	-.35	1-7
C4: Most days I feel a sense of accomplishment from working.	4.98	1.39	-.50	-.13	1-7
A5: My feelings as a faculty member are taken into consideration at my university.	3.90	1.62	-.10	-.80	1-7
C5R: As a faculty member, I do not get much of a chance to show how capable I am.	5.35	1.49	-.90	.28	1-7
R5: People at my university care about me.	4.49	1.53	-.35	-.46	1-7
R6R: There are not many people at my university that I am close to.	4.32	1.81	-.26	-.92	1-7
A6: I feel like I can pretty much be myself at work.	5.18	1.46	-.79	.04	1-7
R7R: The people I work with at my university do not seem to like me much.	6.00	1.17	-1.67	3.21	1-7
C6R: When I am working I often do not feel very capable.	5.93	1.22	-1.44	2.26	1-7
A7R: There is not much opportunity for me to decide for myself how to go about my work.	6.00	1.25	-1.83	3.75	1-7
R8: People at my university are pretty friendly towards me.	5.67	1.19	-.95	.77	1-7

Note: The acronym lead before each question should be interpreted as follows, A = autonomy; C = competency; R = relatedness; R = reverse scored; M = mean; SD = standard deviation.

Table 3.4. Descriptive Statistics for Corporatization

Variables (10-Items)	M	SD	Skewness	Kurtosis	Scale Range
Corp1: The University is no longer considered a social institution but instead seen as an industry.	4.68	1.65	-.43	-.75	1-7
Corp2: There is increasing pressure within my College or department to adopt practices that make it more self-sufficient.	5.30	1.35	-.71	.18	1-7
Corp3: My College Dean tends to make most decisions based on external exigencies (e.g., financial motivators) rather than what is best for student learning.	4.37	1.73	-.06	-1.00	1-7
Corp4: My College sees research mainly as a catalyst for generating positive marketability for its programs.	4.53	1.57	-.24	-.78	1-7
Corp5: The current environment at my institution is supportive of academic faculty.	3.36	1.71	.74	-.55	1-7
Corp6: An important role of higher education is to serve the needs of society. My university is currently driven by that mission.	3.09	1.64	.90	-.13	1-7
Corp7: In my College, as one way to remain cost-effective, departments with fewer students are considered less of a priority.	4.72	1.58	-.36	-.70	1-7
Corp8: The University is run more like a business focusing on accountability structures that measure inputs and outputs.	5.29	1.46	-.82	.12	1-7
Corp9: My department or College emphasizes research as a way to increase its national rankings (e.g., prestige).	5.58	1.51	-1.38	1.32	1-7
Corp10: Shared governance is often practiced in my College.	3.78	1.69	.49	-.86	1-7

Note: The acronym lead before each question should be interpreted as follows, Corp = corporatization; R = reverse scored; M = mean; SD = standard deviation.

Table 3.5. Descriptive Statistics for Job Involvement and Intentions to Leave

Variables (JIQ 10-Items; IL 4-Items)	M	SD	Skewness	Kurtosis	Scale Range
<i>Job Involvement</i>					
JIQ1: The most important things that happen to me involve my present job.	3.11	.97	-.18	-.47	1-5
JIQ2: To me, my job is only a small part of who I am.	3.12	1.16	-.20	-1.05	1-5
JIQ3: I am very much involved personally in my job.	4.14	.74	-1.14	2.76	1-5
JIQ4: I live, eat, and breathe my job.	2.71	1.11	.25	-.87	1-5
JIQ5: Most of my interests are centered around my job.	3.03	.98	-.09	-.75	1-5
JIQ6: I have very strong ties with my present job which would be very difficult to break.	3.23	1.12	-.28	-.83	1-5
JIQ7: Usually I feel detached from my job.	4.13	.80	-.93	1.06	1-5
JIQ8: Most of my personal life goals are job-oriented.	2.82	1.00	.14	-.81	1-5
JIQ9: I consider my job to be very central to my existence.	3.17	1.08	-.36	-.80	1-5
JIQ10: I like to be absorbed in my job most of the time.	3.06	1.04	-.15	-.85	1-5
<i>Intentions to Leave</i>					
IL 1 I have considered leaving my institution.	4.00	2.23	-.09	-1.55	1-7
IL2 I have considered leaving academia altogether.	2.94	2.09	.67	-1.05	1-7
IL 3 I would leave this position for another job.	4.15	1.98	-.16	-1.26	1-7
IL4 I am actively searching for a different full-time job.	2.40	1.88	1.27	.32	1-7

Note: The acronym lead before each question should be interpreted as follows, JIQ = job involvement question; IL = intentions to leave; R = reverse scored; M = mean; SD = standard deviation.

**Response rate.** As noted earlier under data screening, 24 faculty responded but were not eligible to complete the study. Their inclusion in the original email distribution is due to occasional missing data for departmental websites that did not include faculty type. For faculty who did not have such identifying information, the researcher decided to leave them in the pool initially. The rationale behind leaving them in the original pool was simple. The survey instrument would offer a way to filter out ineligible faculty as opposed to mistakenly leaving out faculty who would have been perfectly qualified to participate. Such a decision to omit this population might have unintentionally biased the data. It should be noted that each email address was manually retrieved from the eight university websites and reliant on the information posted. Great care was taken to ensure the inclusion of all eligible faculty for each campus. Of the 4,544 emails originally sent, only nine emails bounced back and only seven duplicate emails were

reported by Qualtrics. Interestingly, it was discovered among the eight universities that while their appeared to be a university model or preferred way to post faculty information, many departmental sites varied in the type of information provided and formatting. Even the location of faculty contact information was difficult to find among some departments. However, there appeared to be no particular pattern for institutional type or discipline.

The 24 ineligible faculty reduces the sample population from 4,544 to 4,520 faculty, resulting in a response rate of approximately 17%. While there is no absolute gold standard for web-based survey response rates found in the literature (Fan & Yan, 2009), Nuty (2008) examined eight studies reporting online response rates which demonstrated a range between 47% and 20%. Even though the 17% achieved by this study falls just shy of the desired response rate, it is more than acceptable when factoring in the large sample size of 768, corporatized working environment of the population surveyed (meaning faculty are trained and incentivized to consider opportunity costs of time and effort), and the potential sensitive nature of the questions related to their institutions and job experiences. Further, the survey was sent at the end of the spring semester where faculty are busy with end-of-year grading and commencement activities in addition to their ongoing research and teaching requirements.

### **Model Generation**

Since the literature on corporatization does not currently offer a measurement tool and is based on a hypothetical construct that has not been empirically tested, a scale was created and then tested through EFA. Further, the Basic Psychological Needs at Work Scale (BPNWS) had yet to be adapted to academic faculty. These two realities resulted in the need to perform an exploratory factor analysis (EFA) to determine how well each factor represented the observed

and latent variables, their covariance, and identify the underlying factor structure to eliminate items that over complicate the model (Schumacker & Lomax, 2010).

### **Exploratory Factor Analysis (EFA)**

The online survey tool Qualtrics was used to collect faculty responses which were then exported into SPSS Statistics 23 where the initial descriptive data were produced and examined. SPSS was also used to run the EFA through the dimension reduction factor tool. The basic concept behind EFA is to discover, in a parsimonious way, the fewest number of observed factors needed to explain the covariation among the observed variables (Byrne, 2016; Kahn, 2006). According to Costello and Osborne (2005), EFA provides social science researchers with a “complex, multi-step process” for deciding on the most appropriate number of factors to preserve (p. 1). Based on the recommendation for scale development by Worthington and Whittaker (2006), factors that loaded at less than .30 were removed.

The initial EFA included all 45-items for job involvement, intentions to leave, corporatization, and the three subscales of SDT. Factors were constrained to these six variables, coefficients below an absolute value of .30 were removed, and promax was used as the rotation method. Based on the recommendation of Osborne (2015), for this type of social science research, an oblique promax rotation is preferred over orthogonal rotation because it assumes there will be some correlation among the variables. The factor extraction method used to conduct the factor analysis was a maximum likelihood estimation, which is a commonly used method for normally distributed data (Costello & Osborne, 2005). Gaskin (2016b) reports the ideal tests of EFA will reveal the following: 1) the Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett’s Test (KMO) will be above .80; 2) the item will show a high convergent validity at or above .50; 3) no cross-loading on other factors (i.e., discriminant validity); 4) the pattern will explain approximately 60% of the variance or higher, and 5) Cronbach’s Alpha test

of reliability is greater than .60 for each item. Each of these tests were performed and examined through the EFA to ensure each test of fit and measures of reliability and validity were satisfied.

The initial EFA where all 45-items from the six variables were included produced a decent model with a KMO and Bartlett's Test of .93 ( $df = 990$ ), revealed few cross-loadings within the pattern matrix, and explained a cumulative variance of 51.5% (See Table 3.6). When reviewing the pattern matrix, all ten job involvement questions and the four intentions to leave questions loaded as expected. With the exception of the fifth relatedness question, the items for this construct landed together on one factor and presented high loadings (all above .50). Corporatization questions 1, 2, 3, 4, 7, and 8 all loaded together and all were above .50. The most problematic questions centered around autonomy and competency which loaded together and loaded negatively with corporatization factor scores (questions 5, 6, & 10). Further issues were found with the initial EFA where by multiple extractions under the communalities table revealed items that were below .30, which means the proportion of variance explained was low. This indicates issues of correlation (Ford, MacCallum, & Tait, 1986; Gaskin, 2016b). Items with cross-loadings, those that loaded under .30, or had other issues described above, were removed.

The final results of the EFA that produced the best pattern matrix are displayed in Table 3.7 and reveal that the 45-items were reduced to 17-items. KMO = .87, no extractions from the communalities table below .30, variance explained was 58.6%, and the pattern matrix produced no cross-loadings. A comparison between the two models is provided in Table 3.8.

Table 3.6. Pattern Matrix Results for Initial Measurement Model (45-Items)

Questions	h <sup>2</sup>	Factors					
		1	2	3	4	5	6
A1: At my university, I feel a sense of choice and freedom in the work I undertake.	.49		.65				
R1: I really like the people I work with.	.67	.72					
C1R: I do not feel very competent when I am working at my university.	.48						.70
C2: People at my university tell me I am good at what I do.	.36	.38					
A2R: I feel pressured as a faculty member.	.40						.45
R2: I get along with people I work with.	.60	.75					
R3R: I pretty much keep to myself when I am working at my university.	.43	.74					
A3:I am free to express my ideas and opinions as a faculty member at my university.	.52		.53				
R4: I consider the people I work with to be my friends.	.65	.83					
C3: I have been able to learn interesting new skills as a faculty member at my university.	.37		.63				
A4R: As a faculty member at my university, I have to do what I am told.	.26		.49				
C4: Most days I feel a sense of accomplishment from working.	.46		.47				
A5: My feelings as a faculty member are taken into consideration at my university.	.63		.63				
C5R: As a faculty member, I do not get much of a chance to show how capable I am.	.46		.40				
R5: People at my university care about me.	.70	.41	.44				
R6R: There are not many people at my university that I am close to.	.52	.77					
A6: I feel like I can pretty much be myself at work.	.34		.47				
R7R: The people I work with at my university do not seem to like me much.	.55	.75					
C6R: When I am working I often do not feel very capable.	.60						.78
A7R: There is not much opportunity for me to decide for myself how to go about my work.	.38						.31
R8: People at my university are pretty friendly towards me.	.61	.67					
J11: The most important things that happen to me involve my present job.	.40			.62			
J12: To me, my job is only a small part of who I am.	.50			.70			
J13: I am very much involved personally in my job.	.38			.55			
J14: I live, eat, and breath my job.	.63			.79			
J15: Most of my interests are centered around my job.	.59			.76			
J16: I have very strong ties with my present job which would be very difficult to break.	.43			.45		-.34	
J17: Usually I feel detached from my job.	.45			.33			
J18: Most of my personal life goals are job-oriented.	.52			.73			
J19: I consider my job to be very central to my existence.	.58			.76			
J110: I like to be absorbed in my job most of the time.	.54			.72			

Note: Used promax rotation and maximum likelihood extraction method; h<sup>2</sup> = communalities; factors forced to six.



Table 3.6 (Continued). Pattern Matrix Results for Initial Measurement Model (45-Items)

Questions	h <sup>2</sup>	Factors					
		1	2	3	4	5	6
Corp1: The University is no longer considered a social institution but instead seen as an industry.	.63				.70		
Corp2: There is increasing pressure within my College or department to adopt practices that make it more self-sufficient.	.35				.64		
Corp3: My College Dean tends to make most decisions based on external exigencies (e.g., financial motivators) rather than what is best for student learning.	.57				.61		
Corp4: My College sees research mainly as a catalyst for generating positive marketability for its programs.	.38				.60		
Corp5: The current environment at my institution is supportive of academic faculty.	.72		-.59		.31		
Corp6: An important role of higher education is to serve the needs of society. My university is currently driven by that mission.	.47		-.52				
Corp7: In my College, as one way to remain cost-effective, departments with fewer students are considered less of a priority.	.40				.64		
Corp8: The University is run more like a business focusing on accountability structures that measure inputs and outputs.	.59				.80		
Corp9: My department or College emphasizes research as a way to increase its national rankings (e.g., prestige).	.31		.72				
Corp10: Shared governance is often practiced in my College.	.59		-.69				
IL1: I have considered leaving my institution.	.80					.91	
IL2: I have considered leaving academia altogether.	.56					.76	
IL3: I would leave this position for another job.	.70					.87	
IL4: I am actively searching for a different full-time job.	.65					.72	

Note: Used promax rotation and maximum likelihood extraction method; h<sup>2</sup> = communalities; factors forced to six.

Table 3.7. Best Pattern Matrix Results for EFA (17-Items)

Questions	h <sup>2</sup>	Factors					
		1	2	3	4	5	6
R1: I really like the people I work with.	.81	.88					
R2: I get along with people I work with.	.68	.87					
R4: I consider the people I work with to be my friends.	.52	.72					
IL3: I would leave this position for another job.	.75		.94				
IL1: I have considered leaving my institution.	.69		.82				
IL4: I am actively searching for a different full-time job.	.58		.69				
Corp8: The university is run more like a business focusing on accountability structures that measure inputs and outputs.	.54			.85			
Corp1: The university is no longer considered a social institution but instead seen as an industry.	.61			.79			
Corp3: My College Dean tends to make most decisions based on external exigencies (e.g., financial motivators) rather than what's best for student learning.	.44			.56			
JI4: I live, eat, and breath my job.	.58				.75		
JI5: Most of my interests are centered around my job.	.55				.75		
JI9: I consider my job to be very central to my existence.	.47				.68		
A1: At my university, I feel a sense of choice and freedom in the work I undertake.	.61					.92	
A3: I am free to express my ideas and opinions as a faculty member at my university.	.51					.57	
A5: My feelings as a faculty member are taken into consideration at my university.	.51					.30	
C3: I have been able to learn interesting new skills as a faculty member at my university.	.60						.89
C4: Most days I feel a sense of accomplishment from working.	.44						.47

Note: Used promax rotation and maximum likelihood extraction method; h<sup>2</sup> = communalities; factors forced to six.

Table 3.8. Initial Full Model EFA Compared with Best-Fitting Model

Model	# of items	df	$\chi^2$	KMO Test	%Variance Explained
Initial	45	990	15235.22	.929	44.40%
Best-Fitting	17	136	5316.82	.871	58.60%

Note: Used promax rotation and maximum likelihood extraction method; df = degrees of freedom;  $\chi^2$  = chi-squared; KMO Test = Bartlett's Sphericity Test and Kaiser-Mayer-Olkin Index.

## **Summary**

The present study extends research on self-determination theory within academic faculty under the backdrop of corporatized higher education. The BPNWS was adapted for the use with academic faculty along with the introduction of a measurement scale for the empirical examination of the corporatization phenomenon. A strong positive relationship between the three basic innate needs of SDT and faculty job involvement is hypothesized. It was also expected that a strong inverse relationship between SDT scores and intentions to leave would occur. Further, it was anticipated that unique external determinants and scrutiny faced by public faculty will demonstrate that self-determination scores will differ based on institutional type. Finally, a test of the full-model was anticipated to reveal that corporatization negatively impacts faculty attitudes and is mediated by self-determined motivation.

## **Chapter 4: Results**

This chapter focuses on the critical findings from the structural equation model (SEM) employed to test the five hypotheses. Amos 24 was used to create the path diagrams based on the assumptions that SDT's basic psychological needs and corporatization will be significant variables impacting job involvement and intentions to leave. The 17 best-fitting items discovered during the exploratory factor analysis were the observed variables used within the structural models. The chapter begins with a description of respondent characteristics followed by the results from the confirmatory factor analyses (CFA) run to test the validity of the measurement tools used. The chapter concludes with the results from the specific SEM findings related to each of the five hypotheses.

### **Characteristics of Respondents**

This between-subjects design study comprised of an eligible sample size of 768 tenured and tenured-track faculty across eight universities. The total response rate was approximately 17% (768/4,520). Of the total faculty respondents who completed the survey, 51.4% (n = 395) were from public and 48.6% (n = 373) from private research universities with student undergraduate and graduate enrollments ranging from 12,000 to 28,000. The mean average enrollment for the universities was 19,233 students. Missing data was addressed through data imputation techniques as addressed in detail under the methodology section. According to the criteria described for multiple regression by Stevens (2009), 768 represents an acceptable sample size for this study based on the recommendation that for each predictor variable 15 cases are an expected minimum. Further, Schumacker and Lomax (2010) note prior studies that indicate consistency among SEM scholars around a minimum threshold of 100-500 participants (p.42).

The data demographics presented in Table 4.1 included 59.5% male (n= 457) and 40.1% female (n=308). Faculty respondents were mostly Caucasian (85.0%), older with over half (76.8%) at or above the age of 40, and reported a high degree of experience at their current institution (63.1% seven or more years). In fact, 34.5% had worked at the institution for over 15 years. Consistent with these population characteristics, assistant professors were the least represented faculty type at 29.8% (public = 33.2%; nonprofit =26.3%), associate professors at 36.2% (public = 33.4%; nonprofit = 39.1%), and professors at 34.0% (public = 33.4%; nonprofit = 34.6%).

Table 4.1. Demographic Characteristics of Faculty by Institutional Type

Group	Public (n=395) %	Private nonprofit (n=373) %	Total (N=768) %
<b>Faculty Type</b>			
Assistant	33.1	26.3	29.8
Associate	33.4	39.1	36.2
Professor	33.4	34.6	34.0
<b>Gender</b>			
Male	58.5	60.6	59.5
Female	41.1	39.2	40.1
No response	0.4	0.2	0.4
<b>Age (years)</b>			
20-29	1.3	0.8	1.0
30-39	22.8	21.4	22.1
40-49	28.4	27.9	28.1
50-59	26.1	21.4	23.8
60-69	19.5	22.5	21.0
70-79	2.0	5.4	3.6
80+	0.0	0.5	0.3
<b>Experience (years)</b>			
less than 1	5.3	4.8	5.1
1-2	10.1	8.0	9.1
3-6	24.6	20.6	22.7
7-10	14.2	18.8	16.4
11-14	11.4	13.1	12.2
15+	34.4	34.6	34.5
<b>Ethnicity</b>			
White/Caucasian	85.8	84.2	85.0
Black/African American	1.5	2.9	2.2
Asian	4.3	5.6	4.9
Hispanic	0.8	1.5	1.2
Pacific Islander	0.8	0.0	0.4
Two or more races	1.5	2.1	1.8
Some other race	0.0	1.3	0.6
Don't know	2.0	2.4	2.2
No Response	1.5	0.8	1.2

## **Model Testing**

In consultation with the theory of self-determination, knowledge of the scholarly work on higher education corporatization, and the EFA's best pattern matrix, a confirmatory factor analysis (CFA) was performed in three ways: 1) a full-model of all the variables; 2) a single-factor analysis for corporatization; and 3) a three-factor analysis for self-determination's basic psychological needs (see Appendix D for image of models which include the standardized regression coefficients). A CFA requires the use of past research and knowledge of theory to propose relationships between the variables and to statistically test whether-or-not the hypothesized model fits the data collected. CFA provides the researcher with a way to examine whether or not the measurement tool is testing what it was designed to test and if the construct itself is a valid one (i.e., construct validity) (Byrne, 2016). Since the survey included measurement scales not previously used with academic faculty, it was important to run a CFA prior to testing the hypotheses through SEM.

### **Confirmatory Factor Analysis (CFA)**

The current research followed the recommendation of the literature when deciding to run and examine through CFA various goodness-of-fit indices using Amos data output tool. Numerous studies using structural equation modeling indicate a need for the researcher to assess and include in their reporting multiple indicators of model fit (Hu & Bentler, 1999; Byrne, 2016; Schumacker & Lomax, 2010). Beginning with the chi-square as a necessary but insufficient model fit statistic, researchers Hu and Bentler (1999), Schumacker and Lomax (2010), Byrne (2016), and others, report the best fitting SEM models are realized by examining if the maximum likelihood output estimates have reached a set standard of cutoff scores along various measures of indices such as the Tucker-Lewis Index (TLI), Comparative Fit Index (CFI), Relative Fit Index (RFI), Goodness-of-Fit Index (GFI), and Root Mean Squared Error of Approximation (RMSEA).

The ideal cutoff scores for the TLI, CFI, RFI, and GFI will equal a value near .95. RMSEA will have a score below .06. When these scores are achieved, the researcher has a good indication the hypothesized model is a reasonably good fit with the studies sample data (Hu & Bentler, 1999).

**Full-model CFA.** The initial CFA model specification included a test of all 45-items from the original survey. This model was then compared to the six factors (17-items) from the best-fitting pattern matrix performed earlier during the EFA. This second CFA analysis included eight items from SDT's autonomy, competency, and relatedness questions and three items each for corporatization, intentions to leave, and job involvement. Table 4.3 provides a comparison of the goodness-of-fit indices between the two models and Appendix Figure D.1 (All Items) and Figure D.2 (Best Fitting EFA Items) provide pictorials of both models.

The initial CFA (all 45-items) produced a model chi-square ( $\chi^2$ ) 3753.26 ( $df = 936$ ); GFI = .80; CFI = .80; TLI = .79; RFI = .74; and a RMSEA = .06. All of the model indices for this a priori model were tolerable but slightly below the recommended scores for a good model fit. The 17-items that produced the best EFA performed very well during the CFA for all of the model indices,  $\chi^2 = 269.52$  ( $df = 110$ ); GFI = .96; CFI = .96; TLI = .96; RFI = .93; and a RMSEA = .04. For the initial model, an examination of the modification indices indicated some high error covariance between error variables or low factor loadings among the items. For instance, the initial model produced 35 model indices that were above 20. Among this group, nine were above 50. Items that loaded poorly were also generally the ones that had the biggest issues with covariance. Corporatization items two, four, seven, and nine all produced low factor loadings below .50. Autonomy had two factors load below .50 (items two and four); competency produced two (items one and six); and relatedness produced one low factor loading (item three). Further, when examining the standardized residual covariances output from Amos, the initial



model revealed that the items removed from the best-fitting EFA also produced high covariances, several were above an absolute value of 2.58. This is another indicator of issues of covariance that produce poor fitting models (Gaskin, 2016b). These items were removed and not retained with the best-fitting CFA.

For the best-fitting model, only one of the modification indices were above 20 (e10 to CORP = 32.96) and all items had moderate to high factor loadings (above .70) with only one below .65 (Competency item three = .63). The model produced no covariance above .80 which is what you want to see with a good model fit (Gaskin, 2016b).

**Invariance test of full-model.** Included in the current study are three important categorical variables (i.e., gender, ethnicity, and institutional type). In order to determine if the best-fitting model factor structures are similar across these groups, an analysis of measurement invariance was completed where the factors were first unconstrained (i.e., configural invariance test) and then constrained (i.e., metric invariance test) (Byrne, 2016; Horn, McArdle, & Mason, 1983).

The first test run was a configural invariance test. This decision was based on the recommendations of both Gaskin (2016a) and Byrne (2016) who outline the steps for handling invariance testing. When describing the rationale for conducting a configural invariance test Byrne (2016) states, “model fit statistics consistent with, or better than, those found for each of the groups separately support the claim that the same configuration of estimated parameters holds across the groups” (p.239). In other words, when examining the CFA model fit outputs, we are once again looking for scores that indicate a good-model-fit. Within the proposed best-fitting CFA model, the configural variance test for gender (CMIN/DF = 1.93; CFI = .96; RMSEA = .03), for ethnicity (CMIN/DF = 1.88; CFI = .96; RMSEA = .03), and for institutional

type (CMIN/DF = 1.67; CFI = .97; RMSEA = .03), all produced very good model fits when the factors were unconstrained. This provides the first piece of evidence that the data is consistent across these three groups. However, one more test is necessary to increase our confidence in the factors being measured.

Again, following the steps outlined by Byrne (2016) and Gaskin (2016a), a metric invariance test of the best-fitting CFA was performed. This involves constraining all of the latent variables across groups equal to one in order to determine which “parameters in the measurement and structural components of the model are equivalent” (Byrne, 2016, p. 244). Using the model chi-squared test of group differences online stats tool package provided by Gaskin (2016e), chi-squared differences were examined for each variable producing the results found in Table 4.2. According to Byrne (2016), a significant p-value when comparing the chi-square differences of the model would mean there was “evidence of nonvariance” (p.252). The chi-squared model comparisons found no groups had significant p-values and were determined to be invariant. This finding provides evidence the factors within the proposed model are being measured consistently across these two groups.

Table 4.2. Metric Invariance Test for Groups

Group	Constrained	$\chi^2$	$df$	$\chi^2/df$	p	Invariant
Gender	No	426.50	220	1.93		
	Yes	438.70	237	1.85	0.70	Yes
Ethnicity	No	414.43	220	1.88		
	Yes	434.28	237	1.85	.282	Yes
Institutional Type	No	368.12	220	1.67		
	Yes	394.81	237	1.66	0.60	Yes

Note: Represents chi-squared differences;  $\chi^2$  = chi-squared;  $df$  = degrees of freedom;  $\chi^2/df$  = CMIN/DF; p = probability level; in order to be invariant, p must be  $> .05$  (Byrne, 2016); 99% confidence level achieved.

**Single-factor CFA of corporatization.** A single-factor CFA model specification included a test of all 10-items from the original Corporatization survey. This model was then compared to two alternate models (9- and 7-items). The initial and third model are displayed graphically in Appendix Figures D.3 and D.4. A comparison of the goodness-of-fit indices between the three models is shown in Table 4.3.

The initial Corporatization single-factor CFA (all 10-items) produced a poor model,  $\chi^2 = 432.08$  ( $df = 35$ ); GFI = .87; CFI = .83; TLI = .78; RFI = .77; and a RMSEA = .12. While the cut-off scores were close, the initial model indices did not meet the acceptable category for a good model fit. However, when Corporatization item nine was removed, the remaining 9-items achieved acceptable model indices,  $\chi^2 = 98.45$  ( $df = 22$ ); GFI = .97; CFI = .96; TLI = .94; RFI = .93; and a RMSEA = .06. For the second Corporatization model (9-items), none of the modification indices were above 20, factor loadings were mostly tolerable with the exception of two items (questions two and four), and the model produced no covariance above .80.

As mentioned under the reliability and internal consistency analysis of the items, Corporatization question nine - “My department or College emphasizes research as a way to

increase its national rankings (e.g., prestige)” – performed poorly with a mean of 5.58 (on a scale of 1-7); standard deviation = 1.51; skewness = -1.38; and kurtosis = 1.32. An examination of the histogram visually revealed very little variance among participant responses. When removed, the overall Corporatization scale’s Cronbach’s increases ( $\alpha = .84$ ) and RMSEA improves dramatically.

The second model also revealed that corporatization question two, “There is increasing pressure within my College or department to adopt practices that make it more self-sufficient” and question four, “My College sees research mainly as a catalyst for generating positive marketability for its programs” performed poorly having low factor loadings below .50. These two items were removed and a third and final CFA model was run with seven remaining items.

After removing the three questions, the third model performed even better achieving good model indices,  $\chi^2 = 41.29$  ( $df = 10$ ); GFI = .98; CFI = .98; TLI = .96; RFI = .95; and a RMSEA = .06.

**CFA of SDT’s Basic Psychological Needs at Work Scale.** This model specification included a complete item test of the three-factors of SDT: Autonomy, Competency, and Relatedness. The initial model (21-items) was then compared to an alternate model (8-items) based on the EFA best-fitting pattern matrix. Both models are displayed graphically in Appendix Figures D.5 and D.6. A comparison of the goodness-of-fit indices is shown in Table 4.3.

The initial SDT scale (all 21-items) produced a poor model,  $\chi^2 = 1277.00$  ( $df = 186$ ); GFI = .85; CFI = .82; TLI = .80; RFI = .78; and a RMSEA = .08. Factor loadings were moderate to high for autonomy and relatedness. Competency continued to present the most problems with moderate to low factor loadings among all six items. Competency questions one, “I do not feel

very competent when I am working at my university” (Reverse Coded) and question six, “When I am working I often do not feel very capable” (Reversed) had very poor factor loadings below .35; which meant there was little variance among respondents. Regardless of the question, faculty tended to answer competency questions positively across the board.

When the EFA’s best-fitting pattern matrix was used as a comparison model for the SDT scale, the model saw overall model-fit indices improve across all measures producing an excellent model,  $\chi^2 = 23.82$  ( $df = 16$ ;  $p = .093$ ); GFI = .99; CFI = .99; TLI = .99; RFI = .98; and a RMSEA = .02. As expected based on previous research on the three SDT subscales, factors loadings were high for each of the basic needs (above .60). Questions in the initial SDT CFA that loaded poorly ( $< .50$ ), had standardized regression weight estimates greater than .50, or had consistently high individual covariances ( $> 2.58$  absolute value; Gaskin, 2016c) were no longer present when using the best-fitting (8-item) pattern matrix from the EFA.

### **Hypothesized Full Latent Variable Model**

Once the CFA’s were run, the hypothesized full latent variable model was analyzed by evaluating various goodness-of-fit indices and our provided in Table 4.3 for each hypothesis and described in detail in the remaining section of this chapter. This study looked at a full latent recursive model and a relationship was examined where higher scores on SDT were predictive of higher scores on job involvement and lower scores on intentions to leave. The converse relationship was hypothesized between corporatization and the two criterion variables. Additionally, the above model with a direct path from corporatization to the two dependent variables was compared to a model that had SDT as a mediator between corporatization and the criterion variables. Thus, testing the hypothesis that SDT mediates the impact of corporatization upon job involvement and intentions to leave. To test the hypothesis that motivation and corporatization scores are significantly different between faculty at public and private nonprofit

universities, a multi group analysis is examined for institution type. Finally, knowing that intentions to leave may be positively influenced by age, the construct was controlled for when running the structural equation models.

Table 4.3. Summary of Goodness of Fit Statistics for CFA and SEM Models

Model	# of items	df	$\chi^2$	$\chi^2/df$	GFI	CFI	TLI	RFI	RMSEA
Full Model CFA									
Initial	45	936	3753.26	4.01	.80	.80	.79	.74	.06
Better-Fit	17	110	269.52	2.45	.96	.96	.96	.93	.04
Corp CFA									
Initial	10	35	432.08	12.34	.87	.83	.78	.77	.12
Second	09	22	98.45	4.47	.97	.96	.94	.93	.06
Third	07	10	41.29	4.12	.98	.98	.96	.95	.06
SDT CFA									
Initial	21	186	1277.00	6.68	.85	.82	.80	.78	.08
Best-Fit	08	16	23.82	1.48	.99	.99	.99	.98	.02
SEM									
H <sub>3</sub>	17	124	454.04	3.66	.94	.94	.92	.90	.06
H <sub>4</sub>	14	81	226.09	2.79	.96	.97	.96	.94	.05
H <sub>5</sub>	17	122	336.31	2.76	.96	.96	.95	.93	.05

Note: Models presented in this table consist of three confirmatory factor analyses and three full latent variable models.  $\chi^2$  = chi-squared; *df* = degrees of freedom;  $\chi^2/df$  = CMIN/DF; *p* = probability level; CFA = confirmatory factor analysis; Corp = corporatization; SDT = self-determination theory's basic needs of autonomy, competency, and relatedness; H<sub>3</sub> = Hypothesis 3; H<sub>4</sub> = Hypothesis 4; H<sub>5</sub> = Hypothesis 5; GFI = goodness-of-fit index; CFI = comparative fit index; TLI = Tucker-Lewis Index; RFI = relative fit index; RMSEA = root mean square of approximation.

### SEM Model Hypothesis Testing

Based on the best-fitting EFA items for the studies primary six factors (i.e., autonomy, competency, relatedness, job involvement, corporatization, and intentions to leave) a structural equation model was tested. Examined within the AMOS output were the overall goodness of fit indices such as GFI, CFI, RFI, and TLI (near .95; Schumacker & Lomax, 2010), RMSEA (< .06; Hu & Bentler, 1999), critical ratios (>  $\pm 1.96$ ; Byrne, 2016), and probability statistics ( $p < .05$ ).

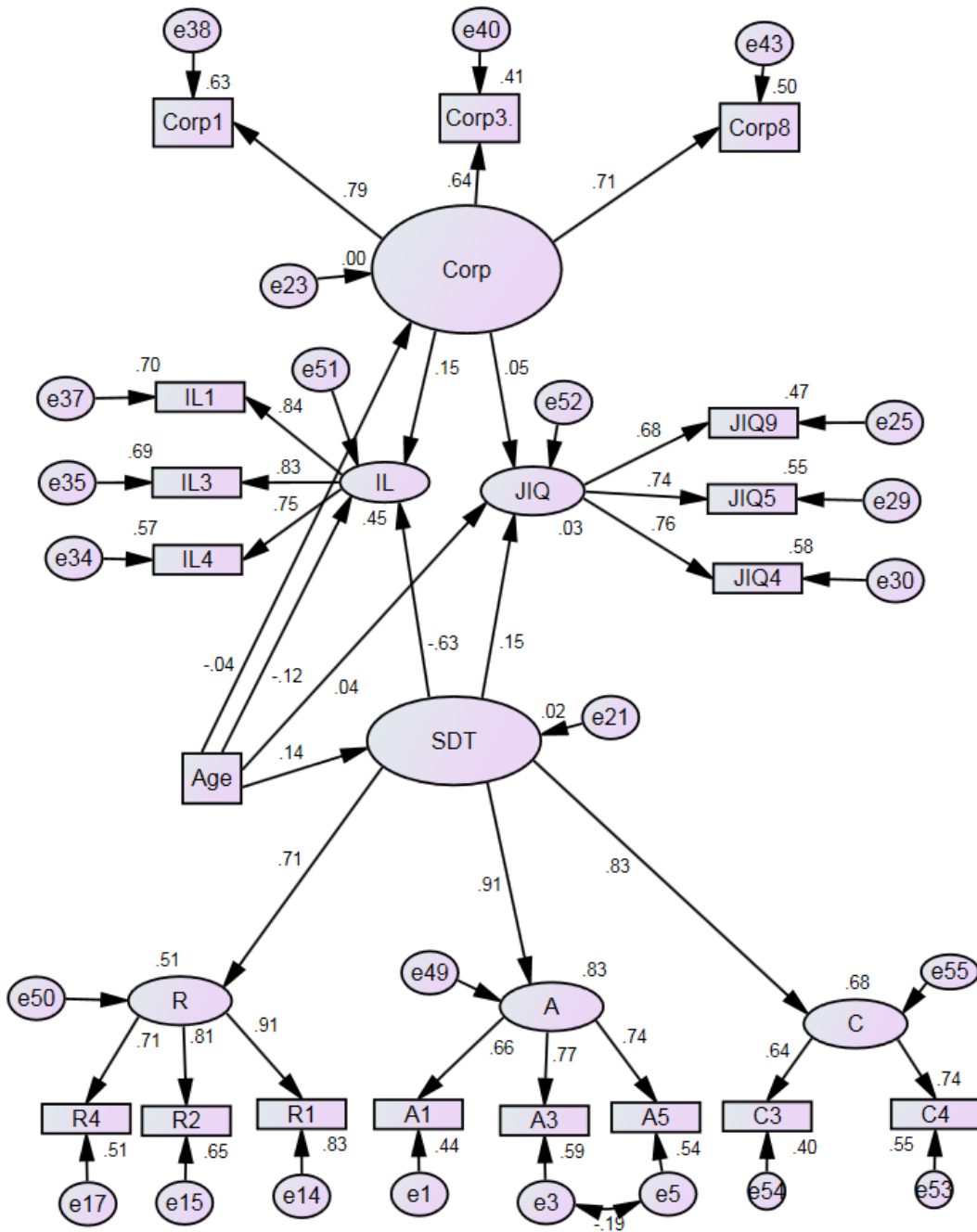
The hypothesized main effects were based on the theorized predicted relationships between

corporatization, SDT's basic psychological needs, job involvement, and intentions to leave. Gender, ethnicity, and institutional type were examined as grouping variables and age was included in each of the hypothesis testing models as a control variable. Tables 4.4 and 4.5 provide a comparison of the results for model testing of H<sub>3</sub>, H<sub>4</sub>, and H<sub>5</sub>.

### **Full Latent Variable Structural Equation Model**

The first SEM analysis of the full latent recursive model included SDT and Corporatization as latent variables, controlling for age (see Figure 4.1). The model fit was tolerable,  $\chi^2$  571.63 ( $df = 124$ ); CFI = .92; TLI = .90; and a RMSEA = .06. Findings revealed SDT was significantly predictive of both job involvement ( $\beta = .15$ ;  $p = .001$ ) and intentions to leave ( $\beta = -.63$ ;  $p < .001$ ). Corporatization was found to significantly predict intentions to leave ( $\beta = .15$ ;  $p < .001$ ) but not job involvement ( $\beta = .05$ ;  $p = .296$ ). This finding is not surprising. When employees have a much higher sense of autonomy, feelings of competency, and a connection to their colleagues, they report less experience with or feelings towards being externally controlled, which is a hallmark of corporatization in higher education. When looking at the control variable, age was actually found to be inversely related to intentions to leave but with a weaker standardized estimate ( $\beta = -.12$ ).

Figure 4.1. Structural Equation Model with Direct Effects of Corporatization and SDT



Note. Shows standardized regression coefficients; A = autonomy; R = relatedness; C = competency; SDT = self-determination latent variable; IL = intentions to leave; JIQ = job involvement; Corp = corporatization latent variable



**Grouping variables tested.** In order to determine the possible effects of gender, ethnicity, and institutional type, a multi group analysis was individually performed for each. First, possible gender effects were examined and demonstrated a tolerable model fit,  $\chi^2 773.52$  ( $df = 271$ ); GFI = .91; CFI = .90; TLI = .90; and a RMSEA = .05. Results revealed no significant relationship between gender and the endogenous variables of interest when looking at the model comparison output,  $\chi^2 (19, N = 768) = 16.91, p=.596$ . Next, prior to testing potential overall group effects for ethnicity, the original variable was first transformed and dummy coded as “1 = White/Caucasian” and “0 = Other”. A chi-squared difference test was then run producing a tolerable overall model fit,  $\chi^2 = 764.49$  ( $df = 271$ ); GFI = .91; CFI = .91; TLI = .90; and a RMSEA = .05. Similar to gender, the results of the test revealed no significant relationship between ethnicity and the endogenous variables of interest,  $\chi^2 (19, N = 768) = 15.98, p=.659$ . Finally, as discussed in detail during the introduction and literature review chapters, institutional type was an important grouping variable for the study. A comparison of the primary constructs between sectors demonstrated a significant difference. Findings are discussed in more detail under the testing of Hypothesis 1. The model comparison resulted in  $\chi^2 (34; N = 768) = 57.98, p = .006$ .

### **Hypothesis Testing**

**Hypothesis 1.**  $H_1$  predicted corporatization scores for academic faculty at a public research university would be higher than their nonprofit university peers. Findings suggest a difference does exist between the two sectors as it relates to corporatization, supporting the first hypothesis ( $H_1$ ). When examining the multi group effect for institutional type using a chi-square difference test, it was found that corporatization scores for public faculty were significantly higher than those from private nonprofit faculty  $\chi^2 (3, N = 768) = 23.60, p<.001$ . However,

corporatization does not appear to influence intentions to leave ( $p = .519$ ) nor job involvement ( $p = .660$ ) differently across the two sectors when constraining these two factors.

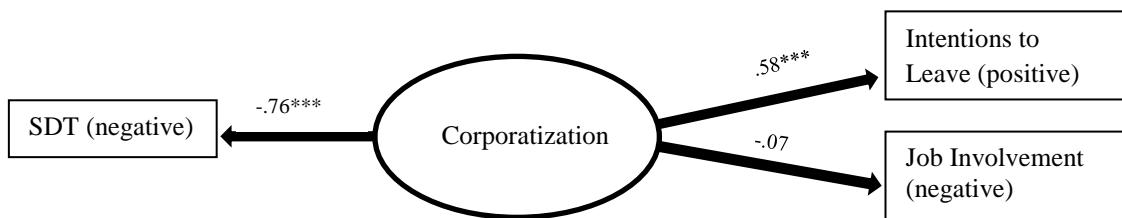
Public institutions have come under heavy scrutiny by key stakeholders, have seen increased demands for and inclusion of external controls from lawmakers, and have a perpetual need to fill the lack of dwindling financial support from the state, which could make public institutions more prone to incorporating efficiency models and market-driven decision making (Cotton & Tuttle, 1986; Finkelstein, 1984; Smart, 1990). Much more so than private nonprofits who have historically benefited from enormous endowments (Thelin & Trollinger, 2014).

**Hypothesis 2.**  $H_2$  predicted self-determined motivation scores for private nonprofit academic faculty would be higher. Overall, the data sample substantiated  $H_2$ ; private nonprofit faculty had higher scores for SDT's three basic needs,  $\chi^2 (8, N = 768) = 22.25, p = .004$ . Autonomy was responsible for the majority of the difference between the two institutional types obtaining a chi-squared difference probability value of .001. Nonprofit faculty were much more likely to identify with higher levels of autonomy than their public peers. This finding was not too surprising considering private university faculty work at institutions that typically have more financial resources and (Thelin & Trollinger, 2014) and are not held to the same level of accountability and public scrutiny (Denison, Fowles, & Moddy, 2014) that can diminish creativity and entrepreneurship. If one is afraid of thinking differently, challenging the process, or bogged down by fundraising tasks, it seems reasonable that this type of environment would diminish feelings of autonomy. These are just a few of the examples of institutional characteristics that can impact the overall working environment for faculty. Yet when constraining the direct paths between SDT and the two criterion variables, an examination of the model comparison between the two groups revealed intentions to leave ( $p=.663$ ) and job

involvement ( $p=.625$ ) had no statistically significant differences across the two sectors. SDT's impact on these two variables is statistically the same for both groups.

**Hypothesis 3.**  $H_3$  predicted a positive main effect for faculty corporatization scores associated with intentions to leave and a negative main effect for job involvement and the fulfillment of basic psychological needs. This model (see Figure 4.2 and Appendix Figure D.7), which presents SDT as a criterion variable impacted by corporatization, performed adequately,  $\chi^2 = 454.04$ ;  $df = 124$ ; GFI = .94; CFI = .94; TLI = .92; RFI = .90; and a RMSEA = .06. The results of the test mostly supported the third hypothesis. SDT's basic psychological needs were negatively predicted by corporatization ( $\beta = -.76$ ;  $p < .001$ ) and higher faculty corporatization scores were predictive of increased feelings towards leaving the institution ( $\beta = .58$ ;  $p < .001$ ). However, job involvement's predicted negative relationship to corporatization was not found to be significant but the data was in the expected direction ( $\beta = -.07$ ;  $p=.125$ ).

Figure 4.2. Proposed Model for Main Effects of Corporatization

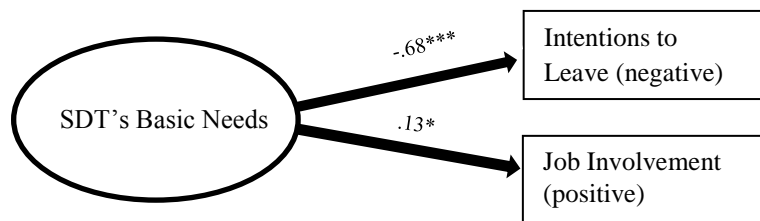


Note. Structural equation model demonstrating path coefficients (i.e., beta) of main effect for corporatization on intentions to leave, job involvement, and SDT (i.e., basic needs of autonomy, competency, and relatedness). Figure shows standardized maximum likelihood regression coefficients.

\*\*\* $p < .001$ .

**Hypothesis 4.** H<sub>4</sub> was also supported. Here the impact of SDT's basic psychological needs without Corporatization in the model was examined (see Figure 4.3 and Appendix Figure D.8). The model performed very well,  $\chi^2 = 226.09$ ;  $df = 81$ ; GFI = .96; CFI = .97; TLI = .96; RFI = .94; RMSEA = .04. It was found that faculty members who scored high in autonomy, competency, and relatedness were positively associated with faculty job involvement ( $\beta = .13$ ;  $p = .006$ ) and negatively associated with intentions to leave. In fact, the inverse relationship between SDT and intentions to leave was very strong ( $\beta = -.68$ ;  $p < .001$ ). This finding was similar to SDT's relationship with corporatization which also was a strong negative predictor of a faculty member's sense of autonomy, competency, and relatedness. It seems clear from the tested models, feelings of corporatization are related to less fulfillment of important psychological needs that are critical to motivation.

Figure 4.3. Proposed Model for Main Effects of SDT's Basic Needs



Note. Structural equation model demonstrating path coefficients (i.e., beta) of main effect for SDT's autonomy, competency, and relatedness on intentions to leave and job involvement. Figure shows standardized maximum likelihood regression coefficients.

\* $p < .05$ , \*\*\* $p < .001$ .

Table 4.4. Comparison of Path Coefficient Estimation for H<sub>3</sub> and H<sub>4</sub>

Model: Variables	$\beta$	S.E.	C.R.	P
H <sub>3</sub> : SDT <--- Corp	-.76	.05	-10.60	***
H <sub>3</sub> : JIQ <--- Corp	-.07	.03	-1.53	.125
H <sub>3</sub> : IL <--- Corp	.58	.06	12.13	***
H <sub>4</sub> : JIQ <--- SDT	.13	.04	2.72	.006*
H <sub>4</sub> : IL <--- SDT	-.68	.09	-12.46	***

Note: H<sub>3</sub> = Hypothesis 3; H<sub>4</sub> = Hypothesis 4; SDT = self-determination theory's basic needs of autonomy, competency, and relatedness; Corp = corporatization variable; JIQ = job involvement; IL = intentions to leave;  $\beta$  = estimates of standardized regression coefficients; S.E. = standard error; C.R. = critical ratios. Estimates tested using maximum likelihood.

\*p < .05, \*\*\*p < .001.

**Hypothesis 5.** H<sub>5</sub> looks at the possible role self-determined motivation plays towards diminishing the effects of corporatization. There is support from the literature that the three basic innate needs are positively linked to increased job performance and satisfaction with one's work. Further, corporatization within higher education is believed to be negatively connected to feelings of external control and pressure (Adams, 2014) which lessen intrinsic motivation and can impact overall performance (Gagné & Deci, 2005). Further, we also know faculty are positively motivated by the degree to which shared decision making models are employed (Johnsrud & Rosser, 2002; Austin & Rice, 1998), an unfortunate casualty of corporatization.

H<sub>5</sub> was also supported by the data and provided the best-fitting model among those used to test each hypothesis. For this mediated path analysis, the goodness of fit indices were very strong,  $\chi^2 = 336.31$ ;  $df = 122$ ; GFI = .96; CFI = .96; TLI = .95; RFI = .93; and a RMSEA = .05. When direct and indirect mediation effects were examined (see Baron & Kenny, 1986; Gaskin, 2016d; Sharma & Kim, 2013), it was found that SDT does appear to mediate the relationship

between corporatization and intentions to leave and job involvement (see Table 4.5 and Appendix Figure D.9).

Table 4.5. Model Testing of Mediation Effects

Variable Path	Direct Effect of Corp (without SDT)	Mediated by SDT	Indirect effects (Bootstrap)
IL < -- Corp	.448***	.028	.001***
JIQ < -- Corp	-.034	.089	.010*

Note: Table adapted from Gaskin (2016d); analysis performed shows standardized estimates, bootstrap maximum likelihood performed to test indirect effects, bias-corrected confidence intervals selected, 90% confidence level; SDT = self-determination theory's basic needs of autonomy, competency, and relatedness; Corp = corporatization variable; JIQ = job involvement; IL = intentions to leave  
 \*p < .05, \*\*\*p < .001

## **Chapter 5: Discussion**

Chapter five begins by addressing the studies major findings through a discussion surrounding the results of the research questions and provides an interpretation of the findings. The four research questions include the following: 1) what differences, if any, exist in the fulfillment of basic psychological needs and experiences of corporatization between the public and nonprofit sectors academic faculty; 2) how does corporatization directly impact job involvement and intentions to leave; 3) what role do the three basic psychological needs of self-determination theory play in faculty job involvement and turnover intention; and 4) does self-determined motivation mediate the impact of corporatization. While addressing each question, a connection is made back to the known literature within employee motivation. Next, the chapter addresses the studies limitations and offers suggestions for future research. Finally, the study concludes with thoughts on the findings significance to higher education and the phenomenon of corporatization.

### **Review of Significant Findings**

The first research question examined differences in the fulfillment of basic psychological needs and experiences of corporatization between the public and nonprofit sectors academic faculty. When compared to faculty from private nonprofit universities, public faculty reported experiencing significantly higher levels of corporatization and consequently significantly lower overall scores for autonomy. As noted earlier within the literature review of this dissertation, public faculty have been especially impacted by intense scrutiny from key stakeholders, diminished resources, and pressure to bring-in more money to the university through such mechanisms as federal grants, patents, and other profit maximizing strategies (Steck, 2003).

The second research question explored whether or not corporatization influences a faculty members self-determined motivation and intentions to leave the university. It was found that regardless of institution type, faculty who reported higher levels of corporatization were also much more likely to indicate lower SDT scores and greater intentions to leave the university even when controlling for age. This is consistent with findings from Adams' (2014) qualitative study of 15 academic faculty and the role of corporate practices upon self-determined motivation. Within a corporatized higher education environment, more external mandates and pressure to perform can be experienced as coming from outside the faculty member's sense of choice and likely diminish their sense of autonomy. The incremental merging of the corporate world within academia is a cause for concern as it has the potential to move the educational mission of the university from faculty to administrators. This move comes with a business-paradigm with the focus on meeting the growing market-based demands for labor generation and ignores the experience and voice of academic faculty. This often causes a schism within the institution between academic faculty and executive administration who have two conflicting world-views which may be associated with top-down administration resulting in amotivation. In that vein, this study's findings supports other research that has linked controlled mandates to amotivation or burnout (Lonsdale, Hodge, & Rose, 2009; Perreault, Gaudreau, Lapointe, Lacroix, 2007) and intentions to leave (Otis & Pelletier, 2005).

The third research question looked at the role of SDT's three basic psychological needs in faculty job involvement and turnover intention. The data revealed that higher scores on SDT's three basic needs are significantly predictive of higher scores for job involvement and lower scores for intentions to leave. Past studies have similarly connected academic faculty autonomy to job satisfaction, job involvement, and/or work engagement (Austin & Rice, 1988; Word &



Brown, in-progress) and have linked positive work attitudes to increased feelings of competency (Bozeman & Gaughan, 2011; Deci, 1971; Austin & Rice, 1988). Furthermore, within the worldview of academic faculty, relatedness can be a feeling of connection to one's academic department and faculty peers. Each positively impacting a faculty members intentions to stay and involvement with their academic work.

Finally, the last research question examined if self-determined motivation mediated the impact of corporatization. The findings from this study support the mediated hypothesis fitting the data well and follows what we know theoretically. Based on the vast literature surrounding self-determination theory discussed earlier in the literature review and what we know about the impact of corporatization, the relationship between corporatization and job involvement and intention to leave may be mediated or influenced by SDT's three innate needs of autonomy, competency, and relatedness (see Appendix Figure D.9). Intrinsic motivation appears to be a significant variable that can positively change the impact of corporatization. The more autonomy, competency, and relatedness a faculty member feels, the more it may lessen corporatization's reported impact on faculty intentions to leave and improve their job involvement. This is useful information for university leadership; better understanding how to promote working environments that are conducive for optimal faculty well-being that may ultimately lead to increased job involvement and persistence.

### **Limitations and Suggestions for Future Research**

**Homogeneity issues.** The current study is limited based on the samples lack of diversity among the respondents. First, despite sampling from eight research universities across both public and private nonprofit institutions, the population was disproportionately male (59.5%) and Caucasian (85.8%). According to a 2013 report by the National Center for Education Statistics

(NCES, 2013) of all U.S. full-time faculty, 79% were Caucasian and 51.2% were male, which indicates that the faculty representing the sample population are outside the national average for both categories. Yet, for the current study, no overall group differences for ethnicity or gender emerged when examining the SEM models. Regardless, females and ethnic minority faculty may experience corporatization differently and future research including a much larger sampling of both groups would greatly add to the current findings.

Another issue with homogeneity was built into the study when examining only tenured or tenured-track faculty. The next study should replicate this work, but examine contingent faculty and their experiences of corporatization and self-determined motivation. As the U.S. research universities continue to become more corporatized, non-tenured faculty positions, which are less expensive, faster to hire, and easier to release, will only gain in numbers (see Goldstene, 2015). A focused comparison between the faculty types would be of great value to determine if contingent faculty experience corporatization differently than their tenured peers.

**Productivity scale issues.** The design of the study also presented other limitations of note. Beginning with the exclusion of a sound productivity measure. Having productivity as a third dependent variable would provide important information to better understand the outcomes of corporatization and self-determined motivation. Initially, productivity was a factor the study considered pursuing as a dependent variable but ultimately did not include because current scales are insufficient for the purposes and construction of this particular research.

However, as an additional point of examination, the 53-item questionnaire included Feeney and Welch's (2012) measures of productivity - research, teaching, and service – that was designed for STEM faculty. Unfortunately, for the purposes of this study, the scale does not take into account other disciplines, such as fine arts faculty productivity. This ended-up posing a

limitation that would likely bias any interpretations of a model within this study that included productivity as a variable. Thus, they were not included. For example, the construct “research” is measured as the total number of journal articles, reviewed conference proceedings, book chapters, electronic e-prints, external grant proposals submitted, invited conference presentations, and other conference presentations faculty had in the past academic year. This does not account for faculty who directed productions, participated in public exhibitions, submitted popular media articles, or conducted various types of creative scholarship within their fields.

Unfortunately, as noted above, measuring productivity in this way proved to be difficult within this anonymous quantitative research. In fact, for this study, the productivity items were generally highly skewed and kurtotic. Productivity measures also caused low factor loading and cross-loading issues throughout the exploratory factor analysis. Further, the inclusion of these questions would likely introduce bias into the study due to the omission of specific productivity questions that cut across all-fields.

**Inability to conduct comparisons among scholarly fields.** Another limitation caused by the study’s design is its inability to examine differences across fields. It was determined at the creation of the survey that any questions that could lead to the potential identification of the university or individual faculty member would be omitted. Despite pursuing universities that have higher ethnic diversity among tenured and tenured-track faculty, the unfortunate reality for most US institutions is one of homogeneity. Meaning, if the study had included identifying information about the faculty member based on department, field of study, or discipline, it is not beyond the realm of possibility that a faculty member who identifies as, for example, Alaskan Native, would be easily identifiable. This information would compromise the commitment to

anonymity promised in the consent form. For these reasons, specific information about the faculty, regarding their field of study and department were omitted making it impossible to determine the proportion of faculty respondents across the different fields and make any meaningful comparisons. This information would have assisted with determining why the productivity measures were skewed, kurtotic, and produced poor factor loadings.

**Corporatization scale development.** While this dissertation provides a starting point within the literature on corporatized higher education, there is a need for better scale development of this construct. Based on exploration of the data and a much better grasp of the methodological tools used to conduct this dissertation, it was discovered that adding at least two or three more items per theme (e.g., mission change) would allow the researcher to conduct an exploratory factor analysis for the development of potentially five subscales. With only two questions per theme, the researcher does not have the ability to run an EFA that examines the five subscales. Two questions per theme limited our exploratory analysis and the recommendation to add to these questions is warranted for future research.

Furthermore, the corporatization questions developed are admittedly focused on the corrosive culture and determined working environment that is a potential product of over using business philosophies and practices within higher education. Needed additions to the scale to provide a more even assessment of corporatization are questions that address the known or perceived benefits of adopting best-practices from the business sector, such as, added efficiency, organization, vision setting, and resource development. Recommended starting points are: 1) an examination of literature considering parallels between the university and business organizations as conditions of today's competitive higher education landscape; and 2) scholars that argue for the privatization of higher education (see Lambert, 2015). Similar to the five themes developed

for this initial corporatization scale, similar themes could be developed based on antecedents and current factors emerging within the literature that contends corporate practices are beneficial to the mission of public or nonprofit institutions.

Finally, the scale was developed with tenured or tenured-track faculty in mind. A similar scale developed for contingent faculty would be of great value allowing future research to compare the two groups.

**Intentions to leave scale.** A slight modification to the intentions to leave scale would have been warranted considering the fact that academic faculty may be leaving the institution due to retirement. However, when examining faculty type, age, and the dependent variable, it was found that assistant professors were actually more likely to report intentions to leave. Further, a mixed-methods approach would have improved our understanding of the reasons behind a faculty members intentions to leave.

**Faculty type.** Another potential limitation to the study is the reliance on academic faculty to select the faculty type that best described their current position at the university. The questionnaire did not include a specific request to indicate if they were in a tenure or tenure-track position. Future research should include this within the questionnaire in order to ensure that faculty who hold the title of assistant, for example, actually are in a tenure-track position. For instance, at some institutions, clinical faculty can hold any of the three faculty type positions used in the survey but without tenure. Even though the consent form was clear regarding the type of faculty eligible to participate, a second safe-guard would have been helpful to remove any ineligible faculty cases.

**Alternative theories.** Self-determination theory is not the only theory that can be used to examine, predict, and explain corporatization and its impact on academic faculty across sectors.

As one example, equity theory, especially procedural justice (Lind, Kulik, Ambrose, & De Vera-Park, 1993) may provide stronger evidence as the key agent involved with increasing a faculty members intentions to leave and significantly undermines their job involvement. Future studies of corporatization may include equity theory as the primary theoretical framework to examine if corporate decision-making processes invoke feelings of isolation and reduce an overall sense of shared governance among university faculty.

## **Conclusion**

This study adds to the relatively small but growing body of literature regarding self-determination theory between the nonprofit and public sectors and the study of higher education faculty. First, the significant findings are consistent with results from Adams' (2014) qualitative dissertation of faculty motivation that found a negative relationship between the corporate model of higher education and SDT's basic psychological needs, regardless of sector. Second, the present study is consistent with previous research on employee motivation that has found controlling determinants thwart need fulfillment and diminish motivation in a way that will negatively impact employee retention and job involvement (see Deci, Connell, & Ryan, 1989; Grant & Shin, 2012). Conversely, SDT's three basic needs do appear to positively impact job involvement and intentions to remain at the institution. Third, refinement and further testing of the corporatization scale developed within this study is warranted. And lastly, the current research suggests significant differences between sectors when it comes to experiences of corporatization and the fulfillment of SDT's psychological needs and that these needs, when fulfilled, mediate the negative consequences of corporatization. More research in this area is needed to assess the relationship between these two constructs. If intrinsic motivation does

indeed lessen the negative impact of corporatization, this would be critical information for university leadership.

In conclusion, research has demonstrated that the innate human drive to satisfy three psychological needs of autonomy, competency, and relatedness is a fundamental building block for understanding the human quest for growth and stability (Deci & Ryan, 2000). When any of these needs are not fulfilled, research has shown there will be a corresponding or related decrease in motivation (Grant & Shin, 2012). Scholars fear that the ongoing mission change of higher education, the inflated costs being transferred from the public to the individual, and a corresponding amplification of accountability and bureaucratic structures are all working together to negatively impact faculty work environments (Bess, 1998; Goldstene, 2015; Labaree, 1997; Hackett, 2014; Schrecker, 2010; Steck, 2003). As universities continue to embrace corporate practices and philosophies, there are externalities that must be understood and researched in order to ensure faculty are fully motivated and involved with their work in ways that will help ensure the public-good mission of higher education continues. As noted by Grant and Shin (2012) “when rewards and incentives are delivered in a manner that threatens feelings of autonomy, competency, and/or relatedness, employees will tend to react negatively” (p. 511). This study suggests, faculty are no different. It is important that incentives and reward systems (e.g., merit) are implemented in a way that does not undermine these three basic needs (Deci, Koestner, & Ryan, 1999; Deckop & Cirka, 2000). Yet, when implemented in a way supportive of intrinsic motivation and fulfilling the basic psychological needs, external rewards can be a positive motivator (Deci, Koestner, & Ryan, 1999; Word & Brown, in progress).

Hackett (2014), in *Academic Capitalism*, appeals for more quantitative analysis on the impact of corporatization upon higher education when he states, “the big picture has been nicely

drawn in a series of books and articles, but meticulous empirical work is needed to delineate mechanisms and their effects on research priorities and outcomes, on education and skills, and on the organization and workings of the social sciences and humanities” (p. 637). This research is just one attempt at getting us closer to better understanding the university-business paradigm and its impact on the motivation of academic faculty.



## Appendix A



### UNLV Social/Behavioral IRB - Exempt Review Exempt Notice

**DATE:** May 9, 2016

**TO:** Jessica Word, PhD  
**FROM:** Office of Research Integrity - Human Subjects

**PROTOCOL TITLE:** [851098-1] Corporatized Higher Education: A Quantitative Study Examining Faculty Motivation Using Self-Determination Theory

**ACTION:** DETERMINATION OF EXEMPT STATUS

**EXEMPT DATE:** May 9, 2016

**REVIEW CATEGORY:** Exemption category #2

Thank you for your submission of New Project materials for this protocol. This memorandum is notification that the protocol referenced above has been reviewed as indicated in Federal regulatory statutes 45CFR46.101(b) and deemed exempt.

We will retain a copy of this correspondence with our records.

**PLEASE NOTE:**

Upon final determination of exempt status, the research team is responsible for conducting the research as stated in the exempt application reviewed by the ORI - HS and/or the IRB which shall include using the most recently submitted Informed Consent/Assent Forms (Information Sheet) and recruitment materials.

Any changes to the application may cause this protocol to require a different level of IRB review. Should any changes need to be made, please submit a **Modification Form**. When the above-referenced protocol has been completed, please submit a **Continuing Review/Progress Completion report** to notify ORI - HS of its closure.

If you have questions, please contact the Office of Research Integrity - Human Subjects at [IRB@unlv.edu](mailto:IRB@unlv.edu) or call 702-895-2794. Please include your protocol title and IRBNet ID in all correspondence.

Office of Research Integrity - Human Subjects  
4505 Maryland Parkway . Box 451047 . Las Vegas, Nevada 89154-1047 (702) 895-2794 . FAX: (702) 895-0805 . [IRB@unlv.edu](mailto:IRB@unlv.edu)

## Appendix B

### Informed Consent and Questionnaire



#### EXEMPT RESEARCH STUDY

#### INFORMATION SHEET

School of Environmental and Public Affairs

---

#### TITLE OF STUDY

Corporatized higher education: A quantitative study examining faculty motivation using self-determination theory

#### INVESTIGATOR(S) AND CONTACT PHONE NUMBER

Dr. Jessica Word, Associate Professor, [jessica.word@unlv.edu](mailto:jessica.word@unlv.edu) or 702-895-2684

Mr. Aaron Brown, PhD Candidate, [aaron.brown@unlv.edu](mailto:aaron.brown@unlv.edu), 702-895-0663

---

**Introduction of Purpose:** You are invited to participate in this quantitative research study, the purpose of which is to improve our understanding of faculty motivation at public and private nonprofit research universities. The information obtained from this study will be used to complete a dissertation by Aaron Brown, graduate student in the School of Environmental and Public Affairs at the University of Nevada, Las Vegas. Your participation is greatly appreciated.

**Participants:** You are being asked to participate because you meet the following criteria: full-time academic faculty member whose primary role is to conduct research and teach undergraduate or graduate level-courses.

**Procedure:** If you volunteer to participate in this research study, you will be asked to complete a 53-item survey regarding your work motivation, job involvement and intentions in addition to answering several participant information questions. The study will take approximately 8-10 minutes of your time.

**Benefits of Participation:** The information you provide will help researchers learn more about what motivates faculty and help create an environment conducive to faculty well-being and growth.

**Risks of Participation:** This study includes only minimal risks that will not exceed daily tasks and questions already experienced as a faculty member. However, it is important to note the potential for risk. For this study, you may become tired of the process of answering questions.

**Compensation:** There is no monetary compensation associated with participating in this survey.

**Confidentiality Protection:** All information you provide for this survey will be kept anonymous. No reference will be made in written or oral materials that could link you or your institution to specific data within this study. All records will be stored within a secured UNLV password protected electronic database.

**Voluntary Participation:** Your participation in this interview is completely voluntary. If you choose, you may stop the survey at any time. Additionally, you are in no way obligated to answer a question and may refuse to participate in any aspect of the survey. Because of the anonymous nature of this study, your decision to participate in the survey will in no way impact your work at your institution, nor will it in any way impact your relationships with colleagues or the institution.

You are encouraged to ask questions about this study at the beginning or any time during the survey by contacting the primary investigator **Dr. Jessica Word at [jessica.word@unlv.edu](mailto:jessica.word@unlv.edu) or 702-895-2684** or the graduate student researcher, **Aaron Brown at [aaron.brown@unlv.edu](mailto:aaron.brown@unlv.edu) or 702-895-0663**.

For questions regarding the rights of research subjects, any complaints or comments regarding the manner in which the study is being conducted, you may also contact the **UNLV Office of Research Integrity – Human Subjects at 702-895-2794, toll free at 877-895-2794, or via email at [IRB@unlv.edu](mailto:IRB@unlv.edu)**.

Participant Consent:

- I have read the above information and agree to participate in this study.

I acknowledge that I am a full-time assistant, associate, or professor at the university.

- I agree that I meet the eligibility criteria.
- I do not meet this eligibility criteria.

The following questions concern your feelings about your work as a faculty member during the PAST ACADEMIC YEAR. Please indicate how true each of the following statements are for you given your experiences as a faculty member at your university of full-time employment. Remember that no one at your institution will ever know how you responded to the questions.

**A1** At my university, I feel a sense of choice and freedom in the work I undertake.

- 1 not at all true
- 2
- 3
- 4 somewhat true
- 5
- 6
- 7 very true

**R1** I really like the people I work with.

- 1 not at all true
- 2
- 3
- 4 somewhat true
- 5
- 6
- 7 very true

**C1R** I do not feel very competent when I am working at my university.

- 1 not at all true
- 2
- 3
- 4 somewhat true
- 5
- 6
- 7 very true

**C2** People at my university tell me I am good at what I do.

- 1 not at all true
- 2
- 3
- 4 somewhat true
- 5
- 6
- 7 very true

**A2R** I feel pressured as a faculty member.

- 1 not at all true
- 2
- 3
- 4 somewhat true
- 5
- 6
- 7 very true

**R2** I get along with people I work with.

- 1 not at all true
- 2
- 3
- 4 somewhat true
- 5
- 6
- 7 very true

**R3R** I pretty much keep to myself when I am working at my university.

- 1 not at all true
- 2
- 3
- 4 somewhat true
- 5
- 6
- 7 very true

**A3** I am free to express my ideas and opinions as a faculty member at my university.

- 1 not at all true
- 2
- 3
- 4 somewhat true
- 5
- 6
- 7 very true

**R4** I consider the people I work with to be my friends.

- 1 not at all true
- 2
- 3
- 4 somewhat true
- 5
- 6
- 7 very true

**C3** I have been able to learn interesting new skills as a faculty member at my university.

- 1 not at all true
- 2
- 3
- 4 somewhat true
- 5
- 6
- 7 very true

**A4R** As a faculty member at my university, I have to do what I am told.

- 1 not at all true
- 2
- 3
- 4 somewhat true
- 5
- 6
- 7 very true

**C4** Most days I feel a sense of accomplishment from working.

- 1 not at all true
- 2
- 3
- 4 somewhat true
- 5
- 6
- 7 very true

**A5** My feelings as a faculty member are taken into consideration at my university.

- 1 not at all true
- 2
- 3
- 4 somewhat true
- 5
- 6
- 7 very true

**C5R** As a faculty member, I do not get much of a chance to show how capable I am.

- 1 not at all true
- 2
- 3
- 4 somewhat true
- 5
- 6
- 7 very true

**R5** People at my university care about me.

- 1 not at all true
- 2
- 3
- 4 somewhat true
- 5
- 6
- 7 very true

**R6R** There are not many people at my university that I am close to.

- 1 not at all true
- 2
- 3
- 4 somewhat true
- 5
- 6
- 7 very true

**A6** I feel like I can pretty much be myself at work.

- 1 not at all true
- 2
- 3
- 4 somewhat true
- 5
- 6
- 7 very true

**R7R** The people I work with at my university do not seem to like me much.

- 1 not at all true
- 2
- 3
- 4 somewhat true
- 5
- 6
- 7 very true



**C6R** When I am working I often do not feel very capable.

- 1 not at all true
- 2
- 3
- 4 somewhat true
- 5
- 6
- 7 very true

**A7R** There is not much opportunity for me to decide for myself how to go about my work.

- 1 not at all true
- 2
- 3
- 4 somewhat true
- 5
- 6
- 7 very true

**R8** People at my university are pretty friendly towards me.

- 1 not at all true
- 2
- 3
- 4 somewhat true
- 5
- 6
- 7 very true

For the following statements, please indicate how strongly you agree regarding your job involvement with research, teaching, and service at your university during the past academic year.

**JIQ1** The most important things that happen to me involve my present job.

- Strongly disagree
- Disagree
- Neither agree nor disagree
- Agree
- Strongly agree

**JIQ2** To me, my job is only a small part of who I am.

- Strongly disagree
- Disagree
- Neither agree nor disagree
- Agree
- Strongly agree

**JIQ3** I am very much involved personally in my job.

- Strongly disagree
- Disagree
- Neither agree nor disagree
- Agree
- Strongly agree

**JIQ4** I live, eat, and breathe my job.

- Strongly disagree
- Disagree
- Neither agree nor disagree
- Agree
- Strongly agree

**JIQ5** Most of my interests are centered around my job.

- Strongly disagree
- Disagree
- Neither agree nor disagree
- Agree
- Strongly agree

**JIQ6** I have very strong ties with my present job which would be very difficult to break.

- Strongly disagree
- Disagree
- Neither agree nor disagree
- Agree
- Strongly agree

**JIQ7** Usually I feel detached from my job.

- Strongly disagree
- Disagree
- Neither agree nor disagree
- Agree
- Strongly agree

**JIQ8** Most of my personal life goals are job-oriented.

- Strongly disagree
- Disagree
- Neither agree nor disagree
- Agree
- Strongly agree

**JIQ9** I consider my job to be very central to my existence.

- Strongly disagree
- Disagree
- Neither agree nor disagree
- Agree
- Strongly agree

**JIQ10** I like to be absorbed in my job most of the time.

- Strongly disagree
- Disagree
- Neither agree nor disagree
- Agree
- Strongly agree

These next set of questions are designed to better understand faculty perceptions of their working environment. Using the scale provided, rate how much you agree or disagree with the following statements.

**Corp6** An important role of higher education is to serve the needs of society. My university is currently driven by that mission.

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

**Corp7** In my College, as one way to remain cost-effective, departments with fewer students are considered less of a priority.

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

**Corp8** The University is run more like a business focusing on accountability structures that measure inputs and outputs.

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

**Corp9** My department or College emphasizes research as a way to increase its national rankings (e.g., prestige).

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

**Corp10** Shared governance is often practiced in my College.

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

**Corp1** The University is no longer considered a social institution but instead seen as an industry.

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

**Corp2** There is increasing pressure within my College or department to adopt practices that make it more self-sufficient.

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

**Corp3** My College Dean tends to make most decisions based on external exigencies (e.g., financial motivators) rather than what is best for student learning.

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

**Corp4** My College sees research mainly as a catalyst for generating positive marketability for its programs.

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

**Corp5** The current environment at my institution is supportive of academic faculty.

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

For the following statements regarding your job intentions during the past academic year, please indicate how strongly you agree.

**II 1** I have considered leaving my institution.

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

**IL2** I have considered leaving academia altogether.

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

**IL 3** I would leave this position for another job.

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

**IL4** I am actively searching for a different full-time job.

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree



These final questions aim to gather participant information. Please select the most relevant categories for each.

Please type the entire name of your current institution of full-time faculty work:

Please select the type of institution you work at as a full-time tenured or tenure-track faculty member?

- Private not-for-profit, 4-year research university
- Public, 4-year research university
- Other \_\_\_\_\_

Select the faculty type that best describes your current position at your institution of full-time employment:

- Assistant
- Associate
- Professor
- Other \_\_\_\_\_

The number of years working as a faculty member at the institution selected in the previous question:

- less than 1
- 1-2
- 3-6
- 7-10
- 11-14
- 15+

Gender:

- Male
- Female

Age:

- 20-29
- 30-39
- 40-49
- 50-59
- 60-69
- 70-79
- 80+

In regards to your racial background, do you consider yourself to be: (select one answer)

- White/Caucasian
- Black/African American
- Native American or Alaskan Native
- Asian
- Pacific Islander
- Two or more races
- Some other race (please specify) \_\_\_\_\_
- Don't know

Please indicate how many peer reviewed academic publications (accepted or published) and invited or other presentations you had in the past academic year:

	0	1-2	3-4	5-6	7-9	10 or more
Journal articles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reviewed conference proceedings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Book or book chapters	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Electronic pre-prints (e-prints)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Invited conference presentations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other conference presentations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
External grant proposals submitted as principal investigator	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Or equivalent in your field (please indicate in box below): <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Over the past academic year, how many courses have you taught or cotaught?

- 0
- 1-2
- 3-4
- 5-6
- 7-9
- 10 or more

Over the past academic year, how many department or university committees have you served on?

---

Note: Ending Slide for Qualtrics survey had the following statement:

Thank you for participating in this study. For questions or feedback please contact:

Dr. Jessica Word at [jessica.word@unlv.edu](mailto:jessica.word@unlv.edu) or Aaron Brown at [aaron.brown@unlv.edu](mailto:aaron.brown@unlv.edu).

## Appendix C

### Email Permission to Use Scales

Re: Basic Psychological Needs at Work Scale

1 message

Sun, Jan 24, 2016 at 7:48 AM

Deci, Edward <deci@psych.rochester.edu> To: Aaron Brown <aaron.brown@unlv.edu>

***You have permission to use the basic psychological needs scale at work and make minor modifications to make it relevant to your work.***

Edward L. Deci  
Professor of Psychology and  
Helen F. & Fred H. Gowen Professor in the Social Sciences University of Rochester  
PO. Box 270266 (for US Mail)  
355 Meliora Hall (for Couriers) Rochester, NY 14627  
Office Phone: 585-275-2461  
Office Fax: 585-273-1100  
Email: deci@psych.rochester.edu

From: Aaron Brown <aaron.brown@unlv.edu> Date: Saturday, January 23, 2016 at 11:37 PM  
To: Edward Deci <deci@psych.rochester.edu> Subject: Basic Psychological Needs at Work Scale

Dear Dr. Deci,

In addition to my work as the director of academic advising, I am currently a graduate student at the University of Nevada, Las Vegas pursuing a PhD in Public Affairs. My dissertation is designed to investigate faculty motivation between public and private nonprofit universities within the context of corporatized higher education. I will be using self-determination as my theoretical framework.

With your permission, I would like to use the Basic Psychological Needs at Work scale and slightly modify it for the purposes of making the survey more applicable to academic faculty.

Further, I have been unable to locate a faculty or work motivation scale that examines all the SOT extrinsic typologies. If you are familiar with such a scale, I would greatly appreciate any advice you would be willing to offer.

Thank you for your consideration, I look forward to your response.

Sincerely,

Aaron Brown

Re: Permission to Use JIQ Scale for Dissertation

RABINDRA KANUNGO <rkanunn234@rogers.com>

Reply-To: RABINDRA KANUNGO <rkanunn234@rogers.com> To: Aaron Brown  
<aaron.brown@unlv.edu>

Wed, Jan 27, 2016 at 1:20 PM

*You have my permission to use the Job Involvement Questionnaire for your work with appropriate citation of the source.*

With best wishes.

Rabindra N Kanungo,  
Ph.D. Professor Emeritus,  
McGill University  
Whitechapel Crescent Nepean,  
Ottawa, Ontario Canada K2J5A1

On Sunday, January 24, 2016 2:54 PM, Aaron Brown <aaron.brown@unlv.edu> wrote:

Dear Dr. Kanungo,

In addition to my work as the director of academic advising, I am currently a graduate student at the University of Nevada, Las Vegas in the School of Environmental and Public Affairs. My dissertation is designed to investigate faculty motivation between public and private nonprofit universities within the context of corporatized higher education.

Recently, I read your 1982 article in the Journal of Applied Psychology, Measurement of Job and Work Involvement. With your permission, I would like to use the "Job Involvement Questionnaire" you designed.

Thank you for considering this request. I look forward to your response.

Sincerely,

Aaron Brown

Re: Self-Determination and Intentions to Leave Article

Melinda Hohman <mhohman@mail.sdsu.edu> To: Aaron Brown <aaron.brown@unlv.edu>

Sun, Jan 24, 2016 at 12:28 PM

Dear Aaron,

*Thanks for your interest. Here is our survey. It was done online so the formatting is just for our purposes. You are welcome to use any questions as is.*

Let me know if you have any questions.

Mindy Hohman

On Sun, Jan 24, 2016 at 11:13 AM, Aaron Brown <aaron.brown@unlv.edu> wrote:

Dear Dr. Hohman,

In addition to my work as the director of academic advising, I am currently a graduate student at the University of Nevada, Las Vegas in the School of Environmental and Public Affairs. My dissertation is designed to investigate faculty motivation between public and private nonprofit universities within the context of corporatized higher education.

Recently, I read your work in the “The Effect of Mandatory Furloughs on Self-Determination, Financial Strain, and Decision to Leave the California State University System in Social Work Faculty” and was hoping, with your permission, to use the “Intent to Leave” survey questions you used. Further, if you are agreeable, would you be willing to share with me the questionnaire as it will ensure I introduce the questions in the exact same manner?

Thank you for your consideration of this request. I look forward to your response.

Sincerely,

Aaron Brown

Re: Realized Publicness at Public and Private Research Universities

On Mon, Jan 25, 2016 at 11:30 AM, Mary Feeney <mkfeeney@asu.edu> wrote:

Hello Aaron

***Thanks for your interest in our work. Attached please find the survey instrument we used to collect data for that paper.***

Best,

Mary K. Feeney, PhD  
Associate Professor and Lincoln Professor of Ethics in Public Affairs  
Arizona State University

On Sat, Jan 23, 2016 at 9:34 PM, Aaron Brown <aaron.brown@unlv.edu> wrote:

Dear Dr. Feeney,

In addition to my work as the director of academic advising, I am currently a graduate student at the University of Nevada, Las Vegas in the School of Environmental and Public Affairs. My dissertation is designed to investigate faculty motivation between public and private nonprofit universities within the context of corporatized higher education.

Recently, I read your work in the Public Administration Review and was hoping, with your permission, to use the survey questions you used to identify faculty productivity (i.e., research, teaching, and service). Further, if you are agreeable, would you be willing to share with me the questionnaire as it will ensure I introduce the questions in the exact same manner?

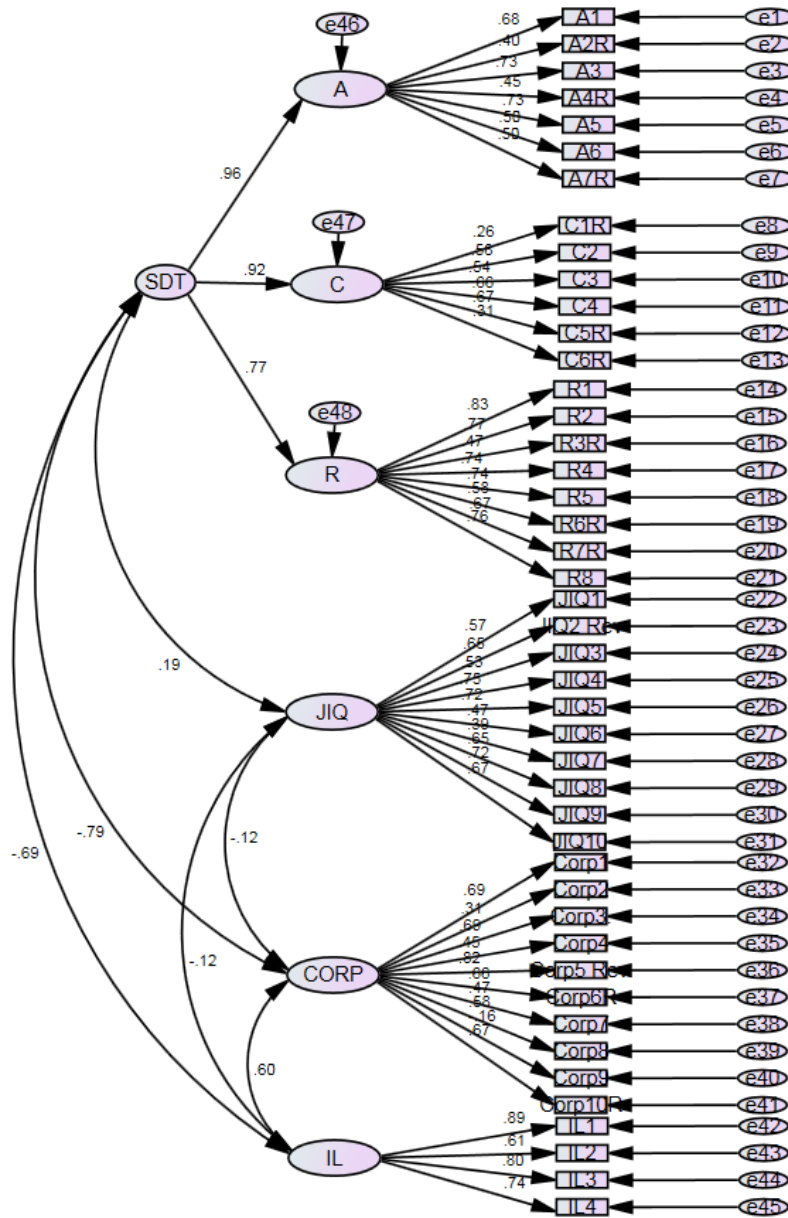
Thank you for your consideration of this request. I look forward to your response.  
Sincerely,

Aaron Brown



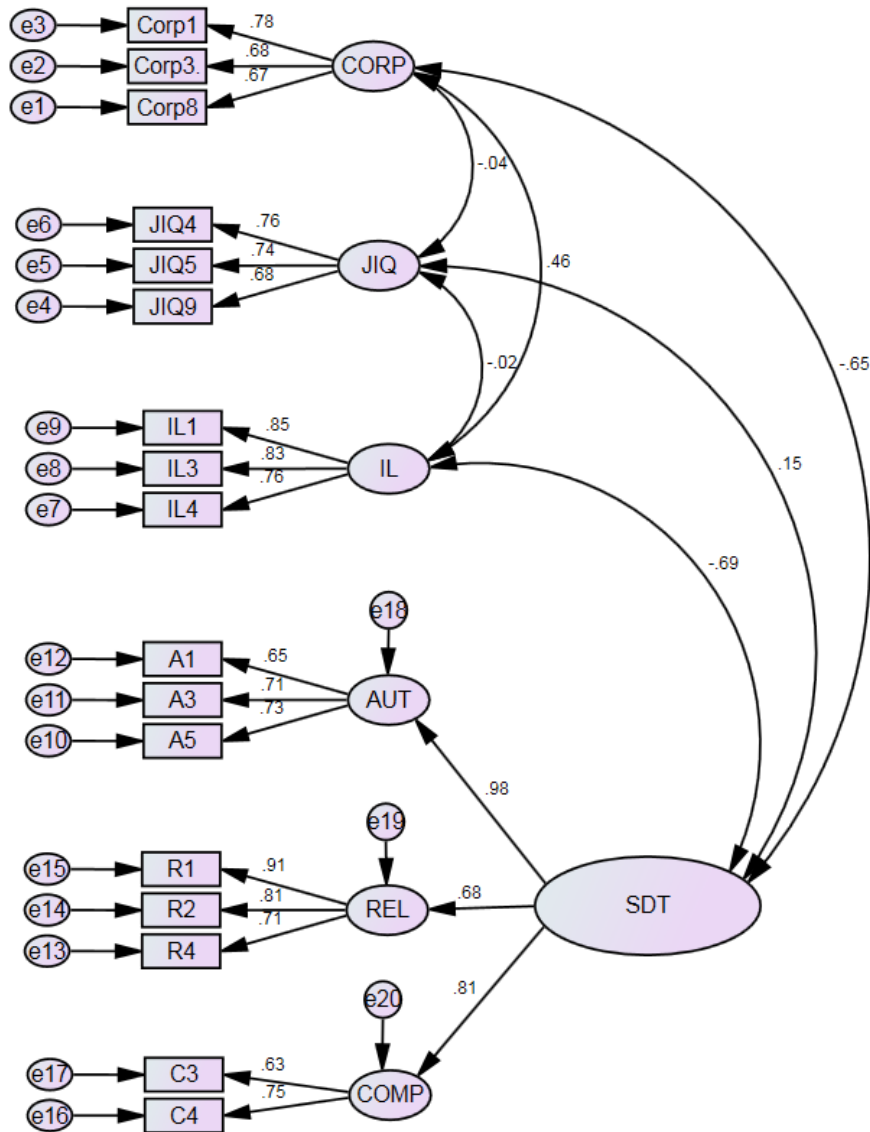
## Appendix D

Figure D.1. Results from Full 45-Item Multivariate Model



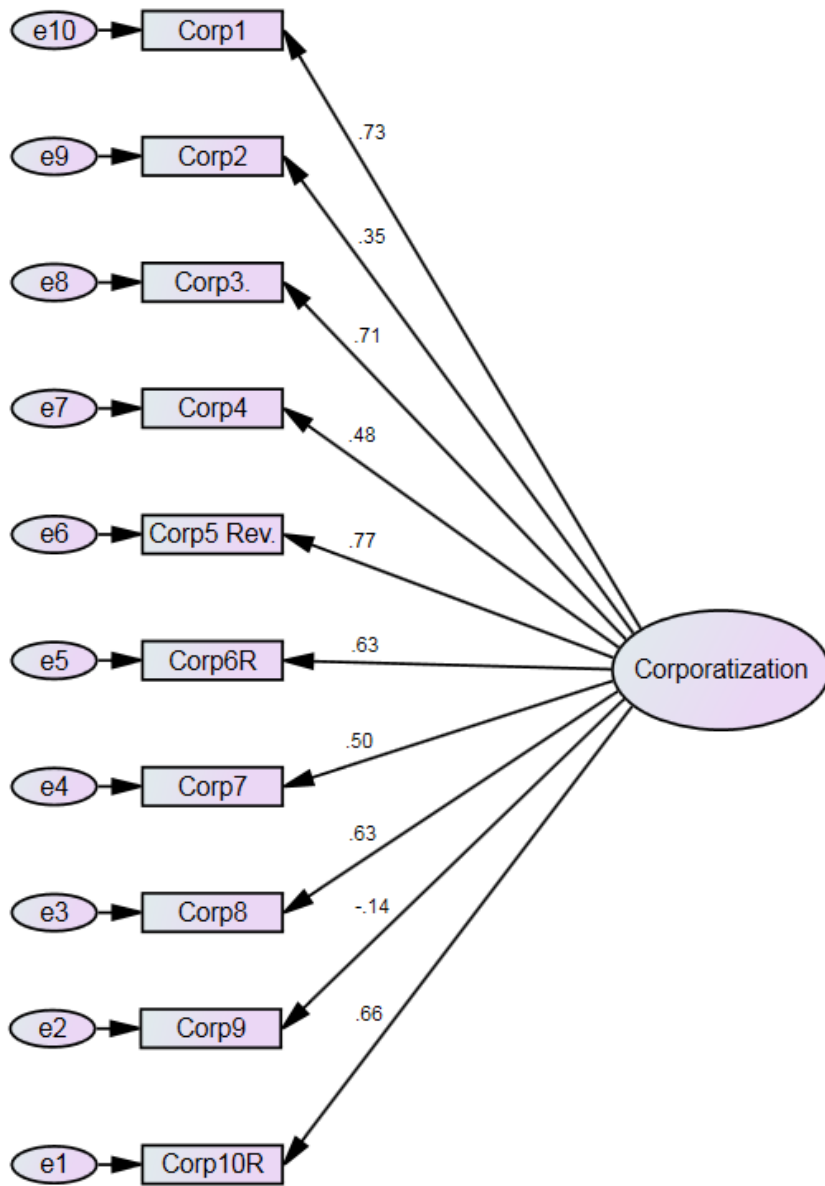
Note. Confirmatory factor analysis of all 45-items. Figure shows standardized maximum likelihood regression coefficients. Corp = corporatization; SDT = self-determination theory's basic needs of autonomy, competency, and relatedness; IL = intentions to leave; JIQ = job involvement; AUT = autonomy; REL = relatedness; COMP = competency; e = exogenous error variance.

Figure D.2. Results from a 17-Item Multivariate Model



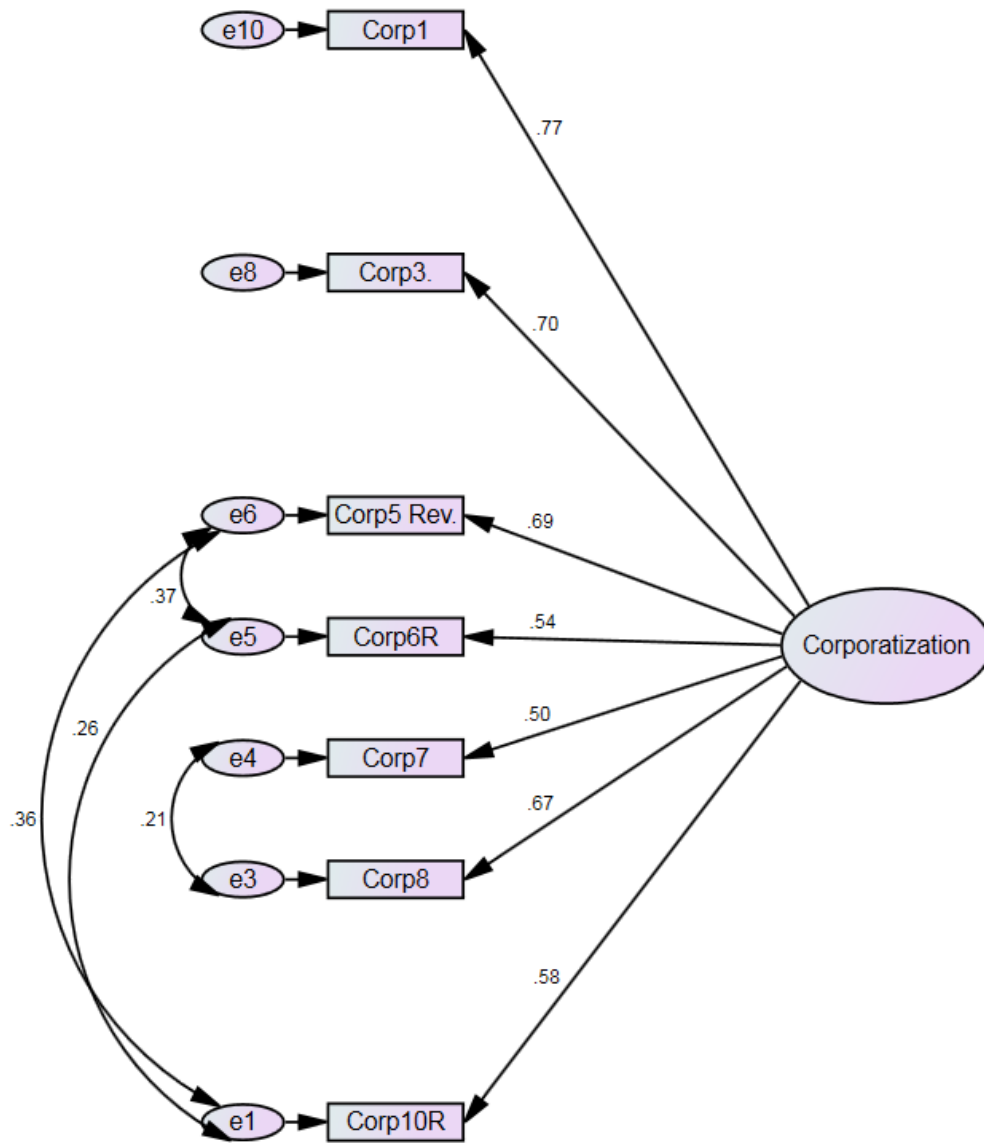
Note. Confirmatory factor analysis of best-fitting 17-items. Figure shows standardized maximum likelihood regression coefficients. Model is demonstrating strong convergent validity among the criterion variables all above .62 and acceptable covariance (below .80) among the latent variables. Corp = corporatization; SDT = self-determination theory's basic needs of autonomy, competency, and relatedness; IL = intentions to leave; JIQ = job involvement; AUT = autonomy; REL = relatedness; COMP = competency; e = exogenous error variance.

Figure D.3. Model Testing of Corporatization Scale



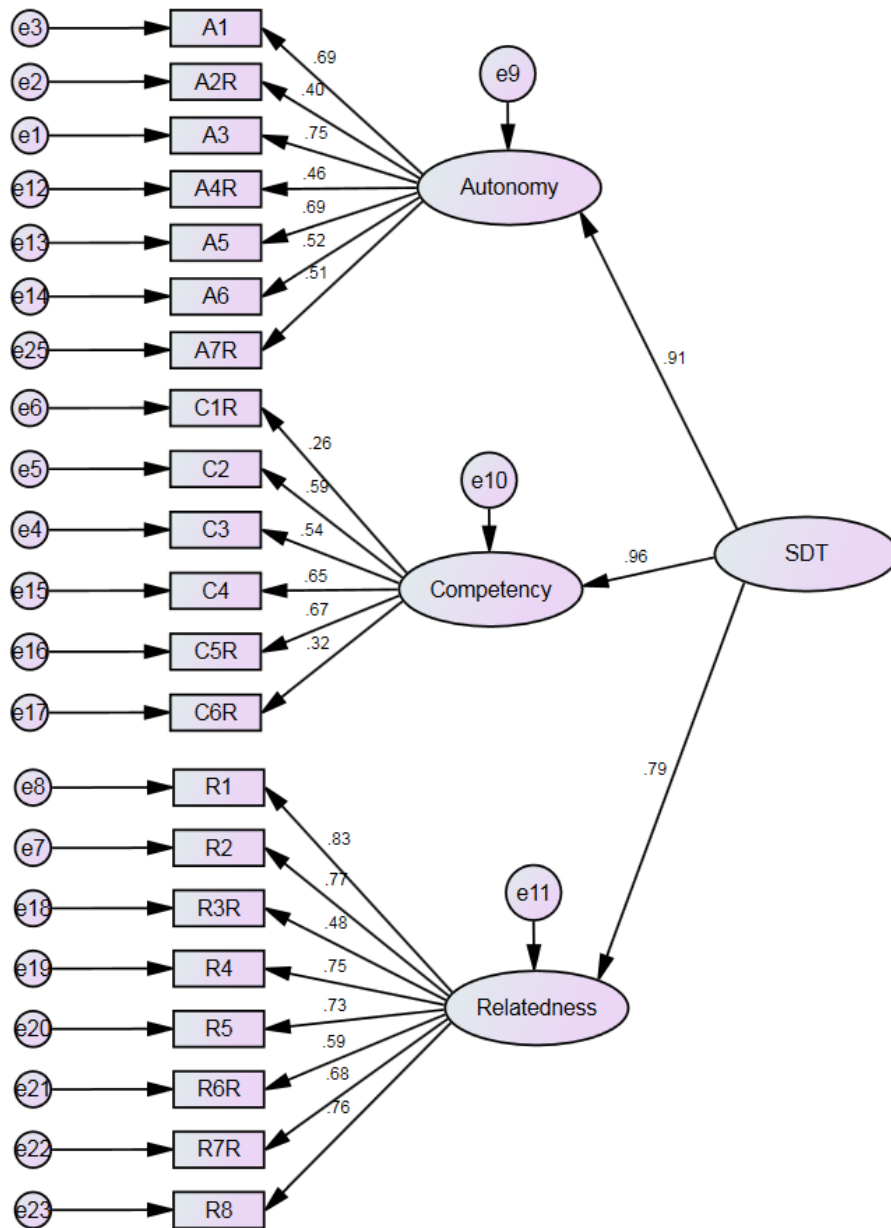
Note. Confirmatory factor analysis of all 10-items for corporatization scale. Figure shows standardized maximum likelihood regression coefficients. Corp = corporatization; e = exogenous error variance.

Figure D.4. Corporatization Model 3 Testing



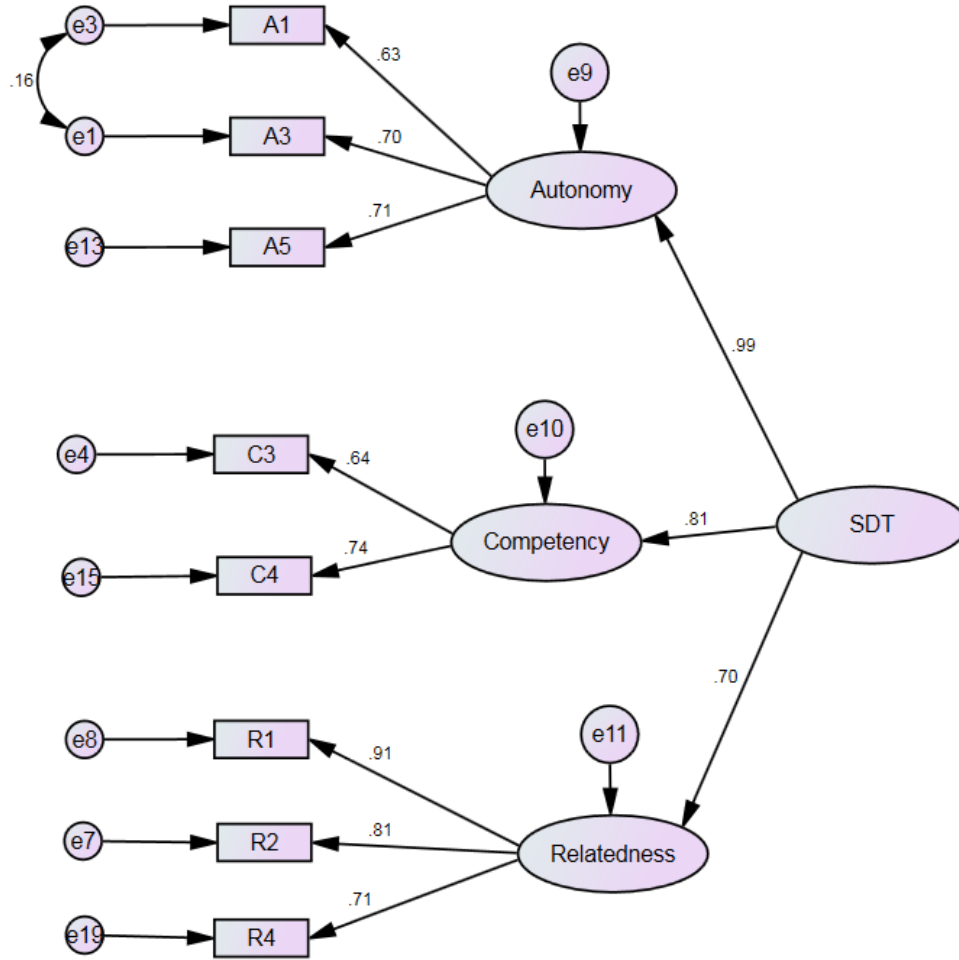
Note. Confirmatory factor analysis of 7-items for corporatization scale. Figure shows standardized maximum likelihood regression coefficients. Corp = corporatization; e = exogenous error variance.

Figure D.5. Self-Determination Full-Scale Model Testing



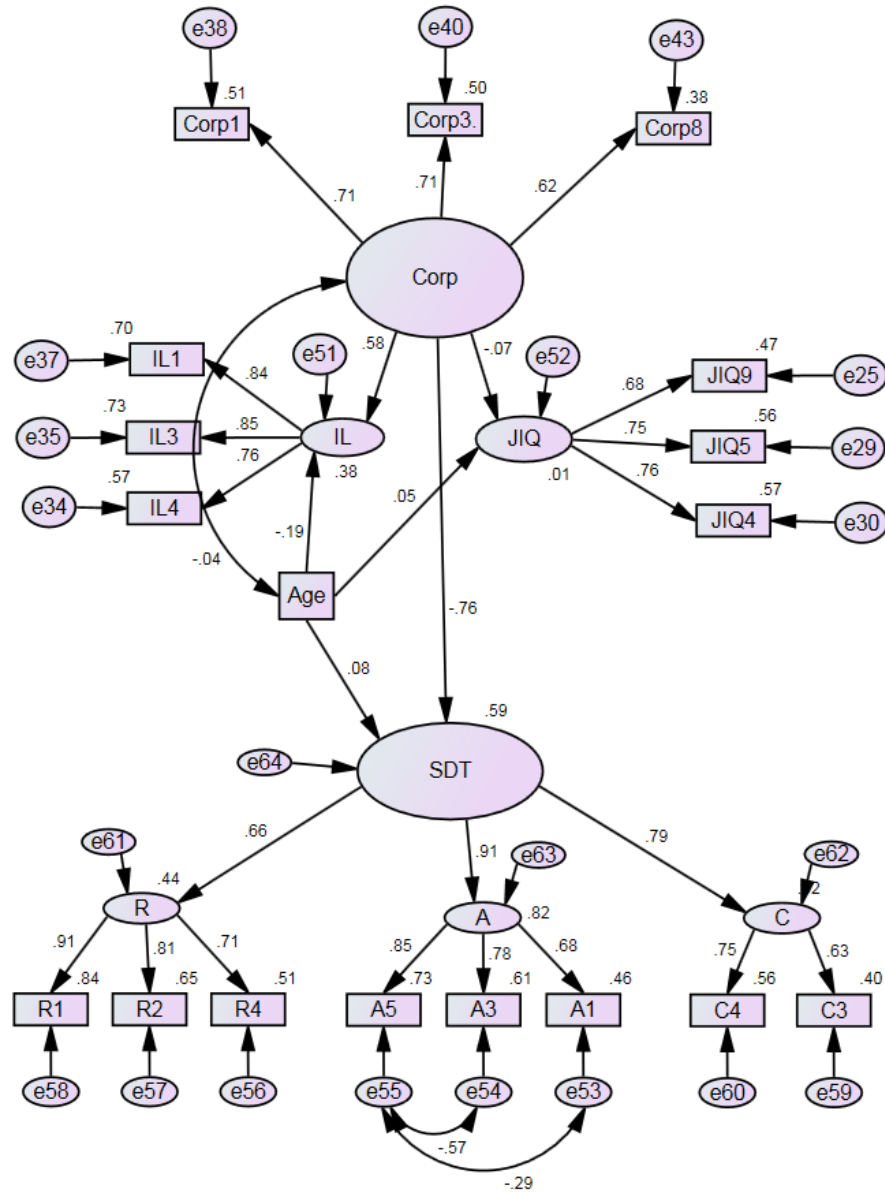
Note. Confirmatory factor analysis of all 21-items for SDT Basic Psychological Needs at Work Scale (BPNWS). Figure shows standardized maximum likelihood regression coefficients and is demonstrating good convergent validity among the majority of criterion variables (above .60 means items are reasonably related to each other) for each of the three subscales. SDT = self-determination theory's basic needs of autonomy, competency, and relatedness; AUT = autonomy; REL = relatedness; COMP = competency; e = exogenous error variance.

Figure D.6. Self-Determination Best-Fitting Model Testing



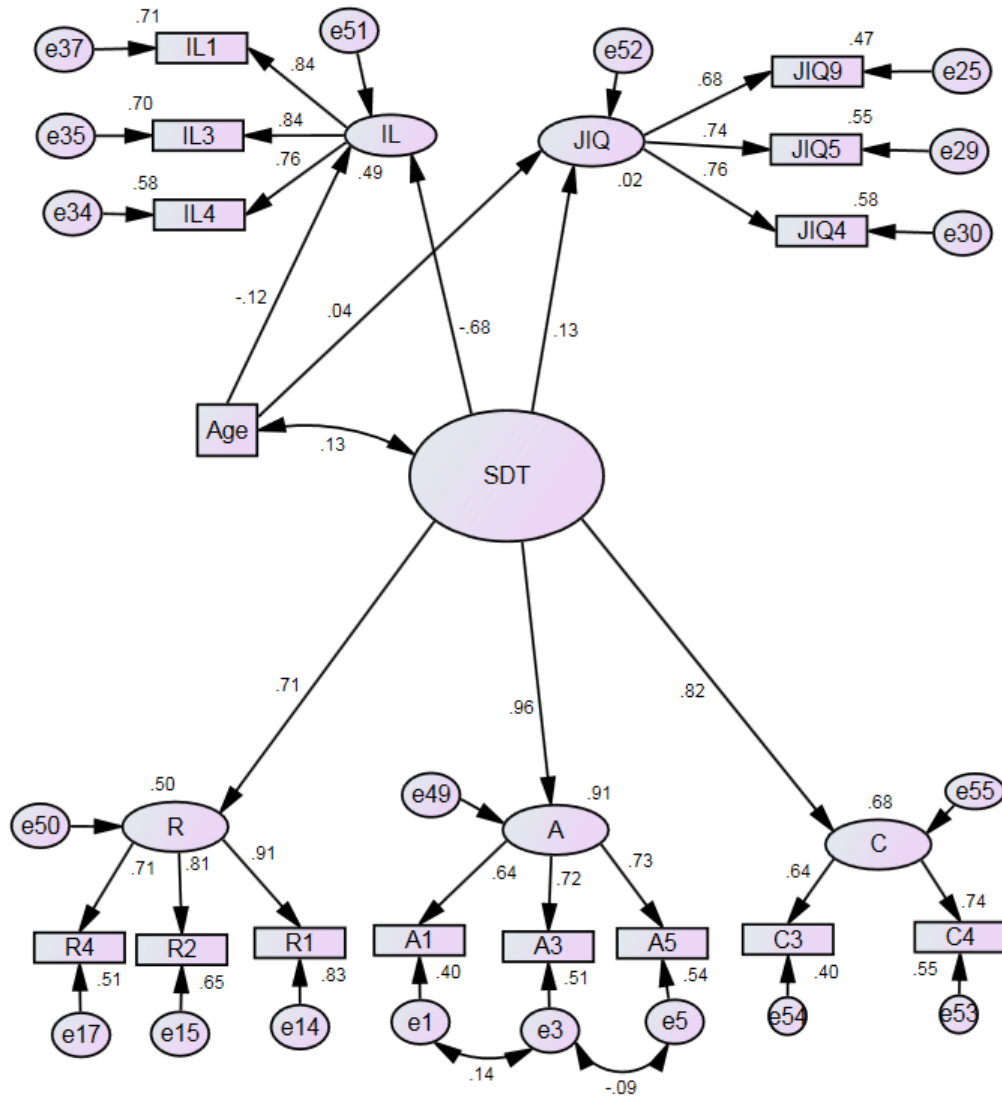
Note. Confirmatory factor analysis of best-fitting 8-items for SDT's Basic Psychological Needs at Work Scale (BPNWS). Figure shows standardized maximum likelihood regression coefficients. Model reveals good convergent validity among all criterion variables (above .60 means items are reasonably related to each other) for each of the three subscales. SDT = self-determination theory's basic needs of autonomy, competency, and relatedness; AUT = autonomy; REL = relatedness; COMP = competency; e = exogenous error variance.

Figure D.7. Proposed Effects of Corporatization



Note. Structural equation model for hypothesis testing (H<sub>3</sub>) of corporatizations direct effect on intrinsic motivation (i.e., SDT) and the two criterion variables intentions to leave (IL) and job involvement (JIQ). Figure shows standardized maximum likelihood regression coefficients. Corp = corporatization; SDT = self-determination theory's basic needs of autonomy, competency, and relatedness; AUT = autonomy; REL = relatedness; COMP = competency; e = exogenous error variance.

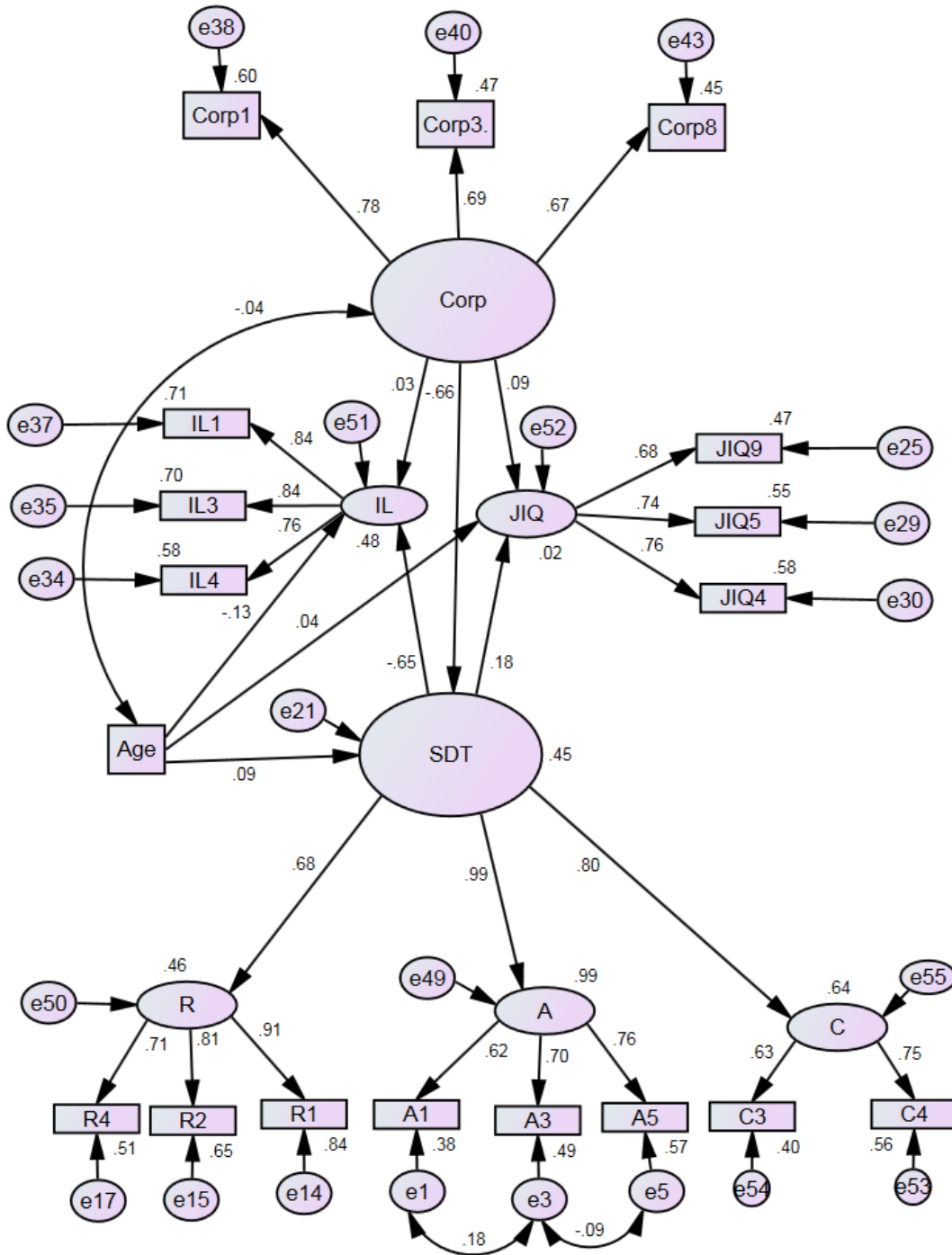
Figure D.8. Direct Effects of SDT's Basic Psychological Needs



Note. Structural equation model for hypothesis testing (H<sub>4</sub>) of SDT's direct effect on intrinsic the two criterion variables intentions to leave (IL) and job involvement (JIQ). Figure shows standardized maximum likelihood regression coefficients. SDT = self-determination theory's basic needs of autonomy, competency, and relatedness; AUT = autonomy; REL = relatedness; COMP = competency; e = exogenous error variance.



Figure D.9. SDT Mediating Effects of Corporatization (H5)



Note. Structural equation model for hypothesis testing (H5) of intrinsic motivation's (i.e., SDT) mediated effects of corporatization. Figure shows standardized maximum likelihood regression coefficients. Corp = corporatization; SDT = self-determination theory's basic needs of autonomy, competency, and relatedness; IL = intentions to leave; JIQ = job involvement; AUT = autonomy; REL = relatedness; COMP = competency; e = exogenous error variance.

## References

- Adams, C. G. (2014). *Faculty perception of autonomous motivation in higher education: An exploratory qualitative inquiry*. (Doctoral dissertation). Retrieved from ProQuest. (Order No. 3645496).
- Adams, J. S. (1963). Toward an understanding of inequity. *Journal of Abnormal and Social Psychology, 67*, 422-436.
- Allport, G. W. (1937). *Personality: A psychological interpretation*. New York: Hold.
- Allison, G. T. (1971). *Essense of decision: Explaining the Cuban missile crisis*. Boston, MA: Little, Brown and Company.
- Ambrose, M. L., & Kulik, C. T. (1999). Old friends, new faces: Motivation in the 1990s. *Journal of Management, 25*, 231-292.
- Ashford, S. J., Rothbard, N. P., Piderit, S. K., & Dutton, J. E. (1998). Out on a limb: The role of context and impression management in selling gender-equity issues. *Administrative Science Quarterly, 43*, 23-57.
- Austin, A. E. (2002). Creating a bridge to the future: Preparing new faculty to face changing expectations in a shifting context. *The Review of Higher Education, 26*(2), 119-114.
- Austin, A. E., & Rice, R. E. (1998). Making tenure viable: Listening to early career faculty. *American Behavioral Scientist, 41*(5), 736-754. doi:10.1177/0002764298041005009
- Bailey, J. G. (1999). Academics' motivation and self-efficacy for teaching and research. *Higher Education Research & Development, 18*, 343-359.
- Baard, P. P. (1994). A motivational model for consulting with not-for-profit organizations: A study of church growth and participation. *Consulting Psychology Journal, 46*, 19-31.

- Baard, P. P. (2002). Intrinsic need satisfaction in organizations: A motivational basis of success in for-profit and not-for-profit settings. In Deci, E. L., and Ryan, R. M. (Eds.), *Handbook of self-determination research* (pp. 255-275). Rochester, NY: The University of Rochester Press.
- Baard, P. P., Deci, E. L., & Ryan, R. M. (2004). Intrinsic need satisfaction: A motivational basis of performance and well-being in two work settings. *Journal of Applied Social Psychology, 34*, 2045-2068.
- Barberis, N. C. (2013). Thirty years of prospect theory in economics: A review and assessment. *The Journal of Economic Perspectives, 27*(1), 173-195.
- Baron, M. R., & D. A., Kenny (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*(6), 1173-1182.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin, 117*, 497-529.
- Barrow, C. W. (2010). The rationality crisis in US higher education. *New Political Science, 32*(3), 317-344. doi: 10.108/07393148.2010.498197
- Blau, G. J. (1985). A multiple study investigation of the dimensionality of job involvement. *Journal of Vocational Behavior, 27*(1), 19-36. doi:10.1016/0001-8791(85)90050-8
- Beaver, W. (2009). For-profit higher education: A social and historical analysis. *Sociological Viewpoints, 2553-2573*.
- Bentley, P. J., & Kyvik, S. (2013). Individual differences in faculty research time allocations across 13 countries. *Research in Higher Education, 54*(3), 329-348.  
doi:10.1007/s11162-012-9273-4

- Bess, J. L. (1997). *Teaching well and liking it: Motivating faculty to teach effectively*. Baltimore, MD: The John Hopkins University Press.
- Bess, J. L. (1998). Contract systems, bureaucracies, and faculty motivation: The probable effects of a no-tenure policy. *The Journal of Higher Education*, 69(1), 1-22.
- Black, A. E., & Deci, E. L. (2000). The effects of instructors' autonomy support and students' autonomous motivation on learning organic chemistry: a self-determination theory perspective. *Science Education*, 84, 740-756.
- Bloom, M., & Michel, J. G. (2002). The relationships among organizational context, pay dispersion, and managerial turnover. *The Academy of Management Journal*, 45(1), 33-42.
- Borzaga, C., & Tortia, E. (2006). Worker motivations, job satisfaction, and loyalty in public and nonprofit social services. *Nonprofit and Voluntary Sector Quarterly*, 35(2), 225-248.
- Bose, P. (2012). Faculty activism and the corporatization of the university. *American Quarterly*, 64(4), 815-818.
- Boyer, E. L. (1990). *Scholarship reconsidered: Priorities of the professoriate*. Princeton, NJ: Carnegie Foundation for the Advancement of Teaching.
- Bozeman, B., & Bretschneider, S. (1994). The "publicness puzzle" in organization theory: A test of alternative explanations of differences between public and private organizations. *Journal of Public Administration Research and Theory: J-PART*, 4(2), 197-223.
- Bozeman, B., & Gaughan, M. (2011). Job satisfaction among university faculty: Individual, work, and institutional determinants. *The Journal of Higher Education*, 82(2), 154-186.
- Brien, M., Forest, J., Mageau, G. A., Boudrias, J., Desrumaux, P., Brunet, L., and Morin, E. M. (2012). The basic psychological needs at work scale: Measurement invariance between Canada and France. *Applied Psychology: Health and Well-Being*, 4(2), 167-187.

- Bronfenbrenner, K., & Juravich, T. (2001). Universities should cease hostilities with unions. *Chronicle of Higher Education*, 47(19), B24.
- Brown, W. A. & Yoshioka, C. F. (2003) Mission attachment and satisfaction as factors in employee retention. *Nonprofit Management and Leadership*, 14(1), 5-18.
- Butler, J. K., JR., & Womer, N. K. (1985). Hierarchical vs. non-nested tests for contrasting expectancy-valence models: Some effects of cognitive characteristics. *Multivariate Behavioral Research*, 20, 335-352.
- Byrne, B. M. (2016). *Structural equation modeling with Amos: Basic concepts, applications, and programming*. New York, NY: Routledge/Taylor & Francis Group.
- Camerer, C. F., & Loewenstein, G. (2004). Behavioral Economics: Past, present, future. In C. F. Camerer, G. Loewenstein, & M. Rabin (Eds.), *Advances in Behavioral Economics*. New York, NY: Princeton University Press.
- Carnoy, M., Froumin, I., Loyalka, P. K., & Tilak, J. B. G. (2014). The concept of public goods, the state, and higher education finance: A view from the BRICs. *Higher Education*, 68(3), 359-378. doi:10.1007/s10734-014-9717-1
- Castiglia, B. (2006). The impact of changing culture in higher education on the person-organization fit, job satisfaction, and organizational commitment of college faculty. *Academy of Educational Leadership Journal*, 10(2), 23.
- Chen, C. A. (2014). Nonprofit Managers' Motivational Styles A View Beyond the Intrinsic-Extrinsic Dichotomy. *Nonprofit and Voluntary Sector Quarterly*, 43(4), 737-758.
- Chen, C. A., & Bozeman, B. (2013). Understanding public and nonprofit managers' motivation through the lens of self-determination theory. *Public Management Review*, 15(4), 584-607.

- Chen, Y., Gupta, A., & Hoshower, L. (2006). Factors that motivate business faculty to conduct research: An expectancy theory analysis. *Journal of Education for Business*, 81(4), 179-189.
- Cheslock, J. J. (2005). Differences between public and private institutions of higher education in the enrollment of transfer students. *Economics of Education Review*, 24(3), 263-274. doi:10.1016/j.econedurev.2004.06.002
- Christmann, A., and S. V. Aelst. (2006). Robust Estimation of Cronbach's Alpha. *Journal of Multivariate Analysis* 97(7), 1660-1674.
- Cole, J. R., & Cole, S. (1973). *Social stratification in science*. Chicago: University of Chicago Press
- Connelly, L. M. (2011). Cronbach's alpha. *Academy of Medical-Surgical Nurses: Research Roundtable*, 20(1), 45.
- Cook, R. G., Ley, K., Crawford, C., & Warner, A. (2009). Motivators and inhibitors for university faculty in distance and e-learning. *British Journal of Educational Technology*, 40(1), 149-163. doi:10.1111/j.1467-8535.2008.00845.x
- Corbett, M. (2015). From law to folklore: Work stress and the Yerkes-Dodson law. *Journal of Managerial Psychology*, 30(6), 741-752. doi:10.1108/JMP-03-2013-0085
- Cortina, J. M. (1993). What is coefficient alpha? An examination of theory and applications. *Journal of Applied Psychology*, 78, 98 –104. doi: 10.1037/0021-9010.78.1.98
- Costello, A. B., & Osborne, J. W. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical Assessment, Research, & Evaluation*, 10(7), 1-9.

- Cotton, J. L., and Tuttle, J. M. (1986). Employee turnover: A meta-analysis and review with implications for research. *Academy of Management Review* 11, 55-70.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16, 297-334.
- De Cremer, D. (2002). Respect and cooperation in social dilemmas: The importance of feeling included. *Personality and Social Psychology Bulletin*, 28, 1335–1341.
- DeCharms, R. (1968). *Personal causation: The internal affective determinants of behavior*. New York, NY: Academic Press.
- Deci, E. L. (1971). Effects of externally mediated rewards on intrinsic motivation. *Journal of Personality and Social Psychology*, 18(1), 105-115.
- Deci, E. L. (1975). *Intrinsic motivation*. New York, NY: Plenum Press.
- Deci, E. L., & Connell, J. P., & Ryan, R. M. (1989). *Self-determination in a work organization*. *Journal of Applied Psychology*, 74(4), 580-590.
- Deci, E. L., Koestner, & Ryan, R. M. (1999). A meta-analytic review of experiments examining the effects of extrinsic rewards on intrinsic motivation. *Psychological Bulletin*, 125, 627-668.
- Deci, E. L., & Ryan, R. M. (1985). The General Causality Orientations Scale: Self-determination in personality. *Journal of Research in Personality*, 19, 109-134.
- Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227-268.
- Deci, E. L., & Ryan, R. M. (2002). *Handbook of self-determination research*. Rochester, NY: The University of Rochester Press.

- Deci, E. L., & Ryan, R. M. (2008). Facilitating optimal motivation and psychological well-being across life's domains. *Canadian Psychology, 49*, 14-23.
- Deci, E. L., & Ryan, R. M. (2012). In R. M. Ryan (Ed.), *The Oxford handbook of human motivation* (pp. 85 - 107). New York, NY: Oxford University Press.
- Deci, E. L., Ryan, R. M., Gagne', M., Leone, D. R., Usunov, J., & Kornazheva, B. P. (2001). Need satisfaction, motivation, and well-being in the work organizations of a former eastern bloc country: A cross-cultural study of self-determination. *Personality and Social Psychology Bulletin, 27*, 930-942
- Deckop, J. R., & Cirka, C. C. (2000, September). The risk and reward of a double-edged sword: Effects of a merit pay program on intrinsic motivation. *Nonprofit and Voluntary Sector Quarterly, 29*(3), 400-418.
- Deckop, J. R., Giacalone, R. A., & Jurkiewicz, C. L. (2015). Materialism and workplace behaviors: Does wanting more result in less? *Social Indicators Research, 121*(3), 787-803. doi:10.1007/s11205-014-0661-3
- Denison, D., Fowles, J., & Moody, M. J. (2014). Borrowing for college: A comparison of Long-Term debt financing between public and private, nonprofit institutions of higher education. *Public Budgeting & Finance, 34*(2), 84-104. doi:10.1111/pbaf.12034
- Duriez, B., Vansteenkiste, M., Soenens, B., & De Witte, H. (2007). The social costs of extrinsic relative to intrinsic goal pursuits: Their relation with social dominance and racial and ethnic prejudice. *Journal of Personality, 75*(4), 757-782.
- Dysvik, A., & Kuvass, B. (2008). The relationship between perceived training opportunities, work motivation and employee motivation. *International Journal of Training and Development, 12*, 138-157.



- Erez, A., & Isen, A. (2002). The influence of positive affect on the components of expectancy motivation. *Journal of Applied Psychology, 87*(6), 1055-1067. doi:10.1037//0021-9010.87.6.1055
- Fan, W., & Yan, Z. (2010). Factors affecting response rates of the web survey: A systematic review. *Computers in human behavior, 26*(2), 132-139.
- Fang, E., Evans, K. R., & Zou, S. (2005). The moderating effect of goal-setting characteristics on the sales control systems–job performance relationship. *Journal of Business Research, 58*(9), 1214-1222. doi:10.1016/j.jbusres.2004.03.006
- Feeney, M. K., & Welch, E. W. (2012). Realized publicness at public and private research universities. *Public Administration Review, 72*(2), 272-284. doi:10.1111/j.1540-6210.2011.02521.x
- Fink, L. (2008). Corporatization and what we can do about it. *The History Teacher, 41*(2), 229-233.
- Finkelstein, M. J. (1984). *The American Academic Profession*. Columbus, OH: Ohio State University Press.
- Ford, J. K., MacCallum, R. C., & Tait, M. (1986). The application of exploratory factor analysis in applied Psychology: A critical review and analysis. *Personnel Psychology, 39*, 291-314. doi:10.1111/j.1744-6570.1986.tb00583.x
- Fox, G., Schwartz, A., & Hart, K. M. (2006). Work–family balance and academic advancement in medical schools. *Academic Psychiatry, 30*, 227–234.
- Frederick-Recascino, C. M., & Schuster-Smith, H. (2003). Competition and intrinsic motivation in physical activity: A comparison of two groups. *Journal of Sport Behavior, 26*(3), 240.

- Frey, B. S., & Jegen, R. (2001). Motivation crowding theory. *Journal of Economic Surveys*, *15*(5), 589-611.
- Freud, S. (1910). The origin and development of psychoanalysis. *The American Journal of Psychology*, *XXI*(2), 181-218.
- Frone, M. R., Russel, M., & Cooper, M. L. (1995). Job stressors, job involvement and employee health: A test of identity theory. *Journal of Occupational and Organizational Psychology*, *68*(1), 1-11. doi:10.1111/j.2044-8325.1995.tb00684.x
- Gagné, M. (2014). *The oxford handbook of work engagement, motivation, and self-determination theory*. New York, NY: Oxford University Press.
- Gagné, M., & Deci, E. L. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior*, *26*, 331-362.
- Gagné, M., & Deci, E. L. (2014). The history of self-determination theory in psychology and management. In M. Gagné (Ed.), *The Oxford handbook of work engagement, motivation, and self-determination theory*. New York, NY: Oxford University Press.
- Gagné, M., Forest, J., Gilbert, M., Aubé, C., Morin, E., & Malorni, A. (2010). The motivation at work scale: Validation evidence in two languages. *Educational and Psychological Measurement*, *70*(4), 628-646. doi:10.1177/0013164409355698
- Gagné, M., & Panaccio, A. (2014). The motivational power of job design. In M. Gagné (Ed.), *The Oxford handbook of work engagement, motivation, and self-determination theory*. New York, NY: Oxford University Press.
- Gannon-Cook, R. (2003). *Factors that motivate or inhibit faculty participation in distance education: An exploratory study*. (Doctoral dissertation). Retrieved from ProQuest. (Order No. 3094001).

Gaskin, J., (2016a). Confirmatory Factor Analysis. Gaskination's StatWiki.

[http://statwiki.kolobkcreations.com/index.php?title=Confirmatory\\_Factor\\_Analysis](http://statwiki.kolobkcreations.com/index.php?title=Confirmatory_Factor_Analysis)

Gaskin, J., (2016b). Data screening. Gaskination's StatWiki. <http://statwiki.kolobkcreations.com>

Gaskin, J., (2016c). Exploratory factor analysis. Gaskination's StatWiki.

[http://statwiki.kolobkcreations.com/index.php?title=Exploratory\\_Factor\\_Analysis](http://statwiki.kolobkcreations.com/index.php?title=Exploratory_Factor_Analysis)

Gaskin, J., (2016d). Structural equation modeling. Gaskination's StatWiki.

[http://statwiki.kolobkcreations.com/index.php?title=Structural\\_Equation\\_Modeling](http://statwiki.kolobkcreations.com/index.php?title=Structural_Equation_Modeling)

Gaskin, J., (2016e), "X2 Difference", Stats Tools Package. <http://statwiki.kolobkcreations.com>

Gerhart, B., & Milkovich, G. T. (1992). Employee compensation: Research and theory. In M.

D. Dunnette, & L. M. Hough, (Eds.), *Handbook of industrial and organizational psychology* (2<sup>nd</sup> ed., pp.481-569). Palo Alto, CA: Consulting Psychologists Press.

Gillet, N., Gagné, M., Sauvagère, S., & Fouquereau, E. (2013). The role of supervisor autonomy

support, organizational support, and autonomous and controlled motivation in predicting employees' satisfaction and turnover intentions. *European Journal of Work and*

*Organizational Psychology*, 22(4), 450-460. doi:10.1080/1359432X.2012.665228

Goldstene, C. (2015). Designed to fail: Adjunct faculty and the fight for education. *Working*

*USA: The Journal of Labor and Society*, 18(3), 367-375. doi:10.1111/wusa.12186

Graham, J. W., & Coffman, D. L. (2012). Structural equation modeling with missing data. In R.

H. Hoyle (Ed.), *Handbook of structural equation modeling* (pp. 277-295). New York, NY: Guilford Press.

Grant, A. M., & Shin, J. (2012). Work motivation: Directing, energizing, and maintaining effort

(and Research). In R. M. Ryan (Ed.), *The Oxford handbook of human motivation* (pp. 505-519). New York, NY: Oxford University Press.

- Greenberg, J. (1989). Cognitive reevaluation of outcomes in response to underpayment inequity. *The Academy of Management Journal*, 32(1), 174-184.
- Greeno, J. G., Collins, A. M., Resnick, L. B. (1996). Cognition and learning. In D. C. Berliner, & R. C. Calfee (Eds.). *Handbook of Educational Psychology* (A Project of Division 15, the Division of Educational Psychology of the American Psychological Association, pp. 15-46). New York, NY: MacMillan.
- Grolnick, W. S., & Ryan, R. M. (1989). Parent styles associated with children's self-regulation and competence in school. *Journal of Educational Psychology*, 81(2), 143-154.
- Guiffrida, D. A, Lynch, M. F., Wall, A. F. and Abel, D. S. (2013, March/April). Do reasons for attending college affect academic outcomes? A test of a motivational model from self-determination theory perspective. *Journal of College Student Development*, 54(2), p. 121-139.
- Gumport, P. (1997). Academic restructuring: Organizational Change and Institutional Imperatives. *Higher Education*, 39, 67-91.
- Gunnell, K. E., & Gaudreau, P. (2015). Testing a bi-factor model to disentangle general and specific factors of motivation in self-determination theory. *Personality and Individual Differences*, 81, 35-40. doi:10.1016/j.paid.2014.12.059
- Guntert, S. (2015). The impact of work design, autonomy support, and strategy on employee outcomes: A differentiated perspective on self-determination at work. *Motivation and Emotion*, 39(1), 74-87. doi:10.1007/s11031-014-9412-7
- Gupta, D. (2011). *Analyzing public policy: Concepts, tools, & techniques* (2<sup>nd</sup> ed.). Washington, DC: CQ Press.

- Hackett, E. J., (2014). Academic capitalism. *Science, Technology, & Human Values*, 39(5), 635-638. doi: 10.1177/0162243914540219
- Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: test of a theory. *Organizational Behavior and Human Performance*, 16, 250-279.
- Hagger, M. S., & Chatzisarantis, L. D. (2015, May). The trans-contextual model of autonomous motivation in education: Conceptual and empirical issues and meta-analysis. *Review of Educational Research*, XX(X), 1-48. doi: 10.3102/0034654315585005
- Hardré, P. L. (2012). Community college faculty motivation for basic research, teaching research, and professional development. *Community College Journal of Research and Practice*, 36(8), 539. doi:10.1080/10668920902973362
- Harlow, H. F. (1950). Learning and satiation of response in intrinsically motivated complex puzzle performance by monkeys. *Journal of Comparative and Physiological Psychology*, 43(4), 289 -294.
- Harrell, A. M., & Stahl, M. J. (1981). A behavioral decision theory approach for measuring McClelland's trichotomy of needs. *Journal of Applied Psychology*, 66, 242-247.
- Harter, S. (1983). Developmental perspectives on the self-system. In E. M. Hetherington (Ed.), *Handbook of child psychology: Socialization, personality and social development* (4<sup>th</sup> ed., pp.275-386). New York, NY: Wiley.
- Herzberg, F., (1964). The motivation to work among Finnish supervisors. *Personnel Psychology*, 18(4), 393-402.
- Herzberg, F., (2008). One more time: How do you motivate employees? *Best of Harvard Business Review Classics*. Boston, MA: Harvard Business Press.

- Herzberg, F., Mausner, B., & Snyderman, B. (1959). *The motivation to work*. New York, NY: Wiley.
- Hilgard, E. R. (1987). The place of Gestalt psychology and field theories in contemporary learning theory. In E. R. Hilgard (Ed.), *Theories of Learning and Instruction* (63<sup>rd</sup> Yearbook of the National Society for the Study of Education, Pt. 1, pp. 54-77). Chicago: University of Chicago Press.
- Hodge, K., Lonsdale, C., & Rose, E. (2009). Athlete burnout in elite sport: A self-determination perspective. *Journal of Sports Sciences*, 27(8), 785-795.  
doi:10.1080/02640410902929366
- Hohman, M., Packard, T., Finnegan, D., & Jones, L. (2013). The effect of mandatory furloughs on self-determination, financial strain, and decision to leave the California state university system in social work faculty. *Journal of Social Work Education*, 49(4), 748-759.
- Horn, J. L., McArdle, J. J., & Mason, R. (1983). When is invariance not invariance: A practical scientist's look at the ethereal concept of factor invariance. *Southern Psychologist*, 4, 179-188.
- Howard, A., & Bray, D. W. (1988). *Managerial lives in transition*. New York, NY: Guilford Press.
- Hu, L., & Bentler, P.M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6(1), 1-55.
- Hull, C. L. (1943). *Principles of behavior: An introduction to behavior theory*. New York: Appleton-Century-Crofts.

- Jensen, M. C., Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3, 305-360.
- Johnsrud, L. K., & Rosser, V. J. (2002). Faculty members' morale and their intentions to leave: A multilevel explanation. *The Journal of Higher Education*, 71(1), 34-59.
- Kahn, J. H., (2006, September). Factor analysis in counseling psychology research, training, and practice: Principles, advances, and applications. *The Counseling Psychologist*, 34(5), 684-718.
- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47(2), 263-292.
- Kanfer, R. (1990). Motivation theory and industrial and organizational psychology. In Dunnette, R. A., & Hough, M. B. (Eds.), *Handbook of Industrial & Organizational Psychology* (2<sup>nd</sup> ed., pp.75-170). Palo Alto, CA: Consulting Psychologists Press.
- Kanungo, R. N. (1982). Measurement of job and work involvement. *Journal of Applied Psychology*, 67, 3,341-349. doi:10.1037/0021-9010.67.3.341
- Kaplowitz, M. D., Hadlock, T. D., & Levine, R. (2004). A comparison of web and mail survey response rates. *The Public Opinion Quarterly*, 68(1), 94-101. doi:10.1093/poq/nfh006
- Kasser, T., & Ryan, R. M. (1993). A dark side of the American dream: Correlates of financial success as a central life aspiration. *Journal of Personality and Social Psychology*, 65, 410-422.
- Katzell, R. A., & Thompson, D. E. (1990). Work motivation: Theory and practice. *American Psychologist*, 45, 144-153.

- Koestner, R., Otis, N., Powers, T. A., Pelletier, L., & Gagnon, H. (2008). Autonomous motivation, controlled motivation, and goal progress. *Journal of Personality, 76*(5), 1201-1230. doi:10.1111/j.1467-6494.2008.00519.x
- Kruglanski, A. W., Friedman, I., & Zeevi, G. (1971). The effects of extrinsic incentive on some qualitative aspects of task performance1. *Journal of Personality, 39*(4), 606-617. doi:10.1111/j.1467-6494.1971.tb00066.x
- Kuvaas, B. (2009). Performance appraisal satisfaction and employee outcomes: Mediating and moderating roles of motivation. *International Journal of Applied Psychology, 96*, 485-500.
- Labaree, D. F. (1997). Public goods, private goods: *The American struggle over educational goals. American Educational Research Journal, 34*(1), 39-81.
- Latham, G. P., & Locke, E. A. (2007). New developments in and directions for goal-setting research. *European Psychologist, 12*(4), 290-300. doi:10.1027/1016-9040.12.4.290
- Lam, C. F., & Gurland, S. T. (2008). Self-determined work motivation predicts job outcomes, but what predicts self-determined work motivation? *Journal of Research in Personality, 42*, 1109–1115. doi:10.1016/j.jrp.2008.02.002.
- Lambert, M. T. (2015, June). Privatization and the public good. *Change: The Magazine of Higher Learning, 47*(3), 6-13.
- Lechuga, V. M. (2012). Latino faculty in STEM disciplines: Motivation to engage in research activities. *Journal of Latinos and Education, 11*(2), 107-123.
- Lee, B., & Kim, J. (2013). Decision-making competency, self-determination, and health lifestyle in nursing students. *Open Journal of Nursing, 3*(2), 221-226. doi:10.4236/ojn.2013.32030



- Lepper, M. R., Greene, D., & Nisbett, R. E. (1973). Undermining children's intrinsic interest with extrinsic rewards: A test of the overjustification hypothesis. *Journal of Personality and Social Psychology*, 23, 129-137.
- Lerner, G. (2008). Corporatizing Higher Education. *The History Teacher*, 41(2), 219-227.
- Levin, H. M. (1987). Education as a public and private good. *Journal of Policy Analysis and Management*, 6(4), 628-641.
- Levin, J. S. (2009). Institutional governance and the interests of students. In G.S. McClellan, J. Stringer, & Associates, *The Handbook of Student affairs Administration* (pp.41-58). San Francisco, CA: Jossey-Bass.
- Levine, P. (2014). A defense of Higher Education and its civic mission. *The Journal of General Education*, 63(1), 47-56.
- Light, P. C. (2002). The content of their character: The state of the nonprofit workforce. *Nonprofit Quarterly*, 9(3), 6-19.
- Lind, E. A., Kulik, C. T., Ambrose, M., & De Vera-Park, M. V. (1993). Individual and corporate dispute resolution: Using procedural fairness as a decision heuristic. *Administrative Science Quarterly*, 38, 224-251.
- Locke, E. A. (1967). Relationship of success and expectation to affect on goal seeking tasks. *Journal of Personality and Social Psychology*, 7, 125-134.
- Locke, E. A., Cartledge, N., & Koepfel, J. (1968). Motivational effects of knowledge of results: A goal-setting phenomenon? *Psychological Bulletin*, 70(6p1), 474-485.  
doi:10.1037/h0026737
- Locke, E. A., & Latham, G. P. (1990). *A theory of goal setting and task performance*. Englewood Cliffs, NJ: Prentice-Hall.

- Locke, E. A., & Latham, G. P. (2002). Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. *American Psychologist, 57*, 705-717.
- Locke, E. A., Motowidlo, S. J., Bobko, P. (1986). Using self-efficacy theory to resolve the conflict between goal-setting theory and expectancy theory in organizational behavior and industrial/organizational psychology. *Journal of Social and Clinical Psychology, 4*, 328-338.
- Lonsdale, C., Hodge, K., & Rose, E. (2009). Athlete burnout in elite sport: A self-determination perspective. *Journal of Sports Sciences, 27*, 785–795
- Lucas, C. J. (2006). *American higher education: A history* (2<sup>nd</sup> ed.). New York, NY: Palgrave Macmillan.
- Luthans, F., & Ottemann, R. (1973). Motivation vs. learning approaches to organizational behavior. *Business Horizons, 16*(6), 55-62.
- Macfarlane, B., & Hughes, G. (2009). Turning teachers into academics? The role of educational development in fostering synergy between teaching and research. *Innovations in Education and Teaching International, 46*(1), 5-14. doi:10.1080/14703290802646214
- Magolda, P. (2016). *The lives of campus custodians: Insights into corporatization and civic disengagement in the academy*. Sterling, VA: Stylus Publishing, LLC.
- Marchand, G. C. (2008). *Developing a sense of academic ownership: A longitudinal analysis*. (Doctoral dissertation). Retrieved from ProQuest. (Order No. 3346723).
- Maslow, A. H. (1943). A theory of human motivation. *Psychological Review, 50*, 370-396.
- McClelland, D. C. (1965). Toward a theory of motive acquisition. *American Psychologist, 20*, 321-333.
- McGregor, D. (1960). *The human side of enterprise*. McGraw-Hill.

- Mehta, R., & Sivadas, E. (1995). Comparing response rates and response content in mail versus electronic mail surveys. *Journal of the Market Research Society*, 37, 429-39.
- Meyer, J. (2014). Employee commitment, motivation, and engagement: Exploring the links. In M. Gagné (Ed.), *The Oxford handbook of work engagement, motivation, and self-determination theory*. New York, NY: Oxford University Press.
- Miner, J. B. (1984). The unpaved road over the mountains: From theory to applications. *The Industrial-Organizational Psychologist*, 21(2), 9-20.
- Morison, S. E. (1946). *Three centuries of Harvard: 1636-1936*. Cambridge, MA: Harvard University Press.
- Moulton, S. (2009). Putting together the publicness puzzle: A framework for realized publicness. *Public Administration Review*, 69(5), 889-900. doi:10.1111/j.1540-6210.2009.02038.x
- Mowday, R. T. (1991). Equity theory predictions of behavior in organizations. In R. M. Steers, & L. W. Porter (Eds.), *Motivation and work behavior* (5<sup>th</sup> ed., pp.111-131). New York: McGraw-Hill.
- Moynihan, D. P., & Pandey, S. K. (2007). Finding workable levers over work motivation: Comparing job satisfaction, job involvement, and organizational commitment. *Administration and Society*, 39(7), 803-832.
- Murray, H. A. (1938). *Explorations in personality*. New York: Oxford University Press.
- Myers, M. S. (1964). Who are your motivated workers? *Harvard Business Review*, 2(2), 73-88.
- Ng, J. Y. Y., Ntoumanis, N., Thøgersen-Ntoumani, C., Deci, E. L., Ryan, R. M., Duda, J. L., & Williams, G. C. (2012). Self-determination theory applied to health contexts: A meta-analysis. *Perspectives on Psychological Science*, 7(4), 325-340.

- Nuty, D. D. (2008). The adequacy of response rates to online and paper surveys: what can be done? *Assessment & Evaluation in Higher Education*, 33(3), 301-314.
- O'Malley, S. (2012). The leading edge of corporatization in higher ed: For-profit colleges. *Radical Teacher*, 93, 22-28.
- Osborne, J. W. (2015, January). What is rotating in exploratory factor analysis? *Practical Assessment, Research & Evaluation*, 20(2), 1-7.
- Otis, N., & Pelletier, L. G. (2005). A motivational model of daily hassles, physical symptoms, and future work intentions among police officers. *Journal of Applied Social Psychology*, 35(10), 2193-2214.
- Parsons, R. (2012). Motivational theory and its relationship to economic theories of wage. *ASBBS Proceedings*, 19(1), 681.
- Peterson, R. A., & Kim, Y. (2013). On the relationship between coefficient alpha and composite reliability. *Journal of Applied Psychology*, 98(1), 194-198.
- Premack, D. (1959). Toward empirical behavior laws. Part I. Positive Reinforcement. *Psychological Review*, 66, 219-233.
- Perreault, S., Gaudreau, P., Lapointe, M.-C., & Lacroix, C. (2007). Does it take three to tango? Psychological need satisfaction and athlete burnout. *International Journal of Sport Psychology*, 38, 437-450.
- Pollack, R. H. (2000). Bond Issues. *Currents*, 26(1), 44-49.
- Porter, L. W., & Lawler, E. E. III. (1968). *Managerial attitudes and performance*. Homewood, IL: Irwin-Doresey.

- Porter, L. W., Steers, R. M., & Mowday, R. T. (1974). Organizational commitment, job satisfaction, and turnover among psychiatric technicians. *Journal of Applied Psychology*, 59(5), 603-609.
- Power, T. G., Ullrich-French, S. C., Steele, M. M., Daratha, K. B., & Bindler, R. C. (2011). Obesity, cardiovascular fitness, and physically active adolescents' motivations for activity: A self-determination theory approach. *Psychology of Sport & Exercise*, 12(6), 593-598. doi:10.1016/j.psychsport.2011.07.002
- Rainey, H. G., Backoff, R. W., & Levine, C. (1976). Comparing public and private organizations. *American Society for Public Administration*, 36(2), 233-244.
- Ratelle, C. F., & Duchesne, S. (2014). Trajectories of psychological need satisfaction from early to late adolescence as a predictor of adjustment in school. *Contemporary Educational Psychology*, 39(4), 388-400. doi:10.1016/j.cedpsych.2014.09.003
- Regens, J. L., & Thomas, P. L. (1992). Buy now, pay later: Trends in state indebtedness, 1950–1989. *Public Administration Review*, 52(2), 157–161.
- Richer, S. F., Blanchard, C., & Vallerand, R. J. (2002). A motivational model of work turnover. *Journal of Applied Social Psychology*, 32, 2089–2113.
- Roets, A., Van Heil, A., & Cornelis, I. (2006). Does materialism predict racism? Materialism as a distinctive social attitude and a predictor of prejudice. *European Journal of Personality*, 20, 155–168.
- Ross, S. A. (1973, May). The economic theory of agency: The principal's problem. *The American Economic Review*, 63(2), 134-139.
- Rosser, V. J. (2004). Faculty members' intentions to leave: A national study on their worklife and satisfaction. *Research in Higher Education*, 45(3), 285-309.

- Rowley, D., Lujan, H., & Dolence, M. (1997). *Strategic change in colleges and universities*. San Francisco, CA: Jossey-Bass.
- Rosenzweig, R. M. (2001). *The political university*. Baltimore, MD: Johns Hopkins University Press.
- Rousseau, D. M. (1995). *Psychological contracts in organizations: Understanding written and unwritten agreements*. Thousand Oaks, CA: Sage.
- Ryan, R. M. (1982). Control and information in the intrapersonal sphere: An extension of cognitive evaluation theory. *Journal of Personality and Social Psychology*, 43, 450-461.
- Ryan, R. M. (2012). *The Oxford handbook of human motivation*. New York, NY: Oxford University Press.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *The American Psychologist*, 55(1), 68-78. doi: 10.1037/0003-006X.55.1.68
- Ryan, R. M., & Deci, E. L. (2002). Overview of self-determination theory: An organismic dialectical perspective. In E. L. Deci, & R. M. Ryan, *Handbook of self-determination research* (pp. 3-33). Rochester, NY: The University of Rochester Press.
- Ryan, R. M., & La Guardia, J. G. (2000). What is being optimized over development?: A self-determination theory perspective on basic psychological needs across the life span. In S. Qualls & R. Abeles (Eds.), *Dialogues on psychology and aging* (pp. 145-172). Washington, DC: American Psychological Association.
- Ryan, R. M., Stiller, J., & Lynch, J. H. (1994). Representations of relationships to teachers, parents, and friends as predictors of academic motivation and self-esteem. *Journal of Early Adolescence*, 14, 226-249.

- Schaefer, D. R., & Dillman, D. A. (1998). Development of a standard e-mail methodology: Results of an experiment. *Public Opinion Quarterly*, 62(3), 378-397.
- Schafer, J. L., & Graham, J. W. (2002). Missing data: Our view of the state of the art. *Psychological Methods*, 72(2), 147-177.
- Schmitt, N. (1996). Uses and abuses of coefficient alpha. *Psychological Assessment*, 8, 350 – 353. doi:10.1037/1040-3590.8.4.350
- Schrecker, E. (2010). *The lost soul of higher education: Corporatization, the assault on academic freedom, and the end of the American university*. New York: The New Press.
- Schumacker, R. E., & Lomax, R. G. (2010). *A beginners guide to structural equation modeling* (3<sup>rd</sup> ed.). New York, NY: Routledge.
- Schuster, J. H. & Finkelstein, M. J. (2006). *The American faculty: The restructuring of academic work and careers*. Baltimore: The Johns Hopkins University Press.
- Shapiro, S. P. (2005). Agency theory. *Annual Review of Sociology*, 31, 263-284.
- Sharma, P. N., & Kim, K. H. (2013). A comparison of PLS and ML Bootstrapping Techniques in SEM: A monte carlo study. *Springer Proceedings in Mathematics and Statistics*, 56, 201-208. doi: 10.1007/978-1-4614-8283-3\_13
- Sheldon, K. M., Ryan, R., & Reis, H. T. (1996). What makes for a good day? Competence and autonomy in the day and in the person. *Personality and Social Psychology Bulletin*, 22(12), 1270-1279. doi:10.1177/01461672962212007
- Shih, T., & Fan, X. (2009). Comparing response rates in e-mail and paper surveys: A meta-analysis. *Educational Research Review*, 4(1), 26-40. doi:10.1016/j.edurev.2008.01.003
- Simon, H. A. (1959). Theories of decision-making in economics and behavioral science. *The American Economic Review*, 49(3), 253-283.

- Skinner, B. F. (1937). Two types of conditioned reflex: A reply to Konorski and Miller. *The Journal of General Psychology*, *16*(1), 272-279. doi:10.1080/00221309.1937.9917951
- Skinner, B. F. (1963). Operant behavior. *American Psychologist*, *18*(8), 503-515.  
doi:10.1037/h0045185
- Skinner, B. F. (1988). The operant side of behavior therapy. *Journal of Behavior Therapy and Experimental Psychiatry*, *19*(3), 171-179. doi:10.1016/0005-7916(88)90038-9
- Smart, J. C. (1990). A causal model of faculty turnover intentions. *Research in Higher Education*, *31*(5), 405-424.
- Soenens, B., Vansteenkiste, M., Van Petegem, S. (2014). Let us not throw out the baby with the bathwater: Applying the principles of universalism without uniformity to autonomy-supportive and controlling parenting. *The Society for Research in Child Development*, *9*(1), 44-49. doi: 10.1111/cdep.12103
- Sousa-Poza, A., & Sousa-Poza, A. (2000). Well-being at work: A cross-national analysis of the levels and determinants of job satisfaction. *The Journal of Socio-Economics*, *29*, 517-538.
- State Higher Education Executive Officers Association (2014). *Report on state higher education finance, FY 2014*. Retrieved from <http://www.sheeo.org/sites/default/files/project-files/SHEF%20FY%202014-20150410.pdf>
- Stecher, M. D., & Rosse, J. G. (2007). Understanding reactions to workplace injustice through process theories of motivation: A teaching module and simulation. *Journal of Management Education*, *31*(6), 777-796. doi:10.1177/1052562906293504



- Steck, H. (2003). Corporatization of the university: Seeking conceptual clarity. *Annals of the American Academy of Political and Social Science*, 585(1), 66-83.  
doi:10.1177/0002716202238567
- Stevens, J. P. (2009). *Applied multivariate statistics for the social sciences* (5th ed.). Mahwah, NJ: Routledge Academic.
- The Institute for College Access & Success (2014). Student Debt and the Class of 2014.  
Retrieved from [http://ticas.org/sites/default/files/pub\\_files/classof2014.pdf](http://ticas.org/sites/default/files/pub_files/classof2014.pdf)
- Thelin, J. R., Trollinger, R. W. (2014). *Philanthropy and American higher education*. New York, NY: Palgrave Macmillan.
- Thorndike, E. (1911). *Animal intelligence*. New York: Macmillan.
- Tien, F. (2000). To what degree does the desire for promotion motivate faculty to perform research? Testing the expectancy theory. *Research in Higher Education*, 41(6), 723-752.
- Titmus, R. M. (1970). *The gift relationship*. London: Allen and Unwin.
- Tolman, E. C. (1926). A behavioristic theory of ideas. *Psychological Review*, 33(5), 352-369.  
doi:10.1037/h0070532
- Tolman, E. C. (1932). *Purposive behavior in animals and men*. New York: Century.
- Tolman, E. C. (1948). Cognitive maps in rats and men. *The Psychological Review*, 55(4), 189-208. doi:10.1037/h0061626
- Tyler, T. R., & Blader, S. L. (2002). Autonomous vs. comparative status: Must we be better than others to feel good about ourselves? *Organizational Behavior and Human Decision Processes*, 89, 813– 838.
- U.S. Department of Education National Center for Education Statistics, Digest of Educational Statistics. (2013). *Number of faculty in degree-granting postsecondary institutions, by*

- employment status, sex, control, and level of institution: Selected years, fall 1970 through fall 2013.* Retrieved from [https://nces.ed.gov/programs/digest/d14/tables/dt14\\_315.10.asp](https://nces.ed.gov/programs/digest/d14/tables/dt14_315.10.asp)
- U.S. Department of Education National Center for Education Statistics, Digest of Educational Statistics. (2014). *Cost of college education.* Retrieved from <http://nces.ed.gov/fastfacts/display.asp?id=76>
- U.S. Department of Education National Center for Education Statistics. (2015). *Race/ethnicity of college faculty.* Retrieved from <https://nces.ed.gov/fastfacts/display.asp?id=61>
- Vallerand, R. J., & Bissonnette, R. (1992). Intrinsic, extrinsic, and amotivational styles as predictors of behavior: A prospective study. *Journal of Personality, 60*, 599– 620.
- Vallerand, R. J., & Ratelle, C. F. (2002). Intrinsic and extrinsic motivation: A hierarchical model. In E. L Deci, & R. M. Ryan, *Handbook of self-determination research* (pp. 37-63). Rochester, NY: The University of Rochester Press.
- Van den Berg, B A. M, Bakker, A. B., & ten Cate, T. J. (2013). Key factors in work engagement and job motivation of teaching faculty at a university medical centre. *Perspectives on Medical Education, 2*(5), 264-275. doi:10.1007/s40037-013-0080-1
- Van den Broeck, A., Vansteenkiste, M., De Witte, H., & Lens, W. (2008). Explaining the relationships between job characteristics, burnout, and engagement: The role of basic psychological need satisfaction. *Work & Stress, 22*(3), 277-294.  
doi: 10.1080/02678370802393672
- Van Eerde, W., & Thierry, H. (1996). Vroom's expectancy models and work-related criteria: A meta-analysis. *Journal of Applied Psychology, 81*(5), 575-586.
- Van Prooijen, J. (2009). Procedural justice as autonomy regulation. *Journal of Personality and Social Psychology, 96*(6), 1166-1180. doi:10.1037/a0014153

- Veblen, T. (1918). *The higher learning in America: A memorandum on the conduct of universities by business men* (Annotation by R. F. Teichgraeber). Johns Hopkins University Press. Retrieved from <http://site.ebrary.com>.
- Visser-Wijnveen, G. J., Stes, A., & Van Petegem, P. (2012). Development and validation of a questionnaire measuring teachers' motivations for teaching in higher education. *Higher Education, 64*(3), 421-436.
- Vroom, V. H. (1964). *Work and motivation*. New York, NY: Wiley.
- White, R. W. (1959). Motivation reconsidered: The concept of competence. *Psychological Review, 66*(5), 297- 333.
- Wiese, B. S., & Freund, A. M. (2005). Goal progress makes one happy, or does it? Longitudinal findings from the work domain. *Journal of Occupational and Organizational Psychology, 78*, 1-19.
- Wilkinson, N. (2008). *An introduction to behavioral economics*. New York, NY: Palgrave Macmillan.
- Williams, G. C., & Deci, E. L. (1996). Internalization of biopsychosocial values by medical students: A test of self-determination theory. *Journal of Personality and Social Psychology, 70*(4), 767-779.
- Williams, G. C., Grow, V. M., Freedman, Z. R., Ryan, R. M., & Deci, E. L. (1996). Motivational predictors of weight loss and weight-loss maintenance. *Journal of Personality and Social Psychology, 70*(1), 115-126. doi:10.1037/0022-3514.70.1.115
- Word, J. A., & Brown, A. D. (in progress). *Crowding out or aligning incentives: Motivating nonprofit employees through altruism or materialism*. Unpublished article.
- Woodworth, R. S. (1918). *Dynamic psychology*. New York: Columbia University Press.

Worthington, R. L., & Whittaker, T. A. (2006). Scale development research: A content analysis and recommendations for best practices. *The Counseling Psychologist, 34*, 806-838.

# Curriculum Vitae

## Aaron Brown

### PERSONAL DATA

---

Office Address: Academic Success Center  
University of Nevada, Las Vegas  
4505 Maryland Parkway, Box 452001  
Las Vegas, Nevada 89154-2001

Cell Phone: (702) 203-7353

Email Address: brown.aaron21@gmail.com

### EDUCATION

---

Ph.D. in Public Affairs (ABD)  
University of Nevada, Las Vegas, NV (Expected graduation: Fall, 2016)

M.A. in Organizational Psychology  
Antioch University, Seattle, WA (2004)

B.A. in Psychology  
Eastern Washington University, Cum Laude, Cheney, WA (2001)

A.A. Exploratory  
Spokane Falls Community College, Spokane, WA (1998)

### MAJOR AREAS OF ACADEMIC INTERESTS

---

Higher Education: Academic support services, information literacy, retention, progression and completion, program design, program evaluation, training and development.

Poverty Issues: Higher Education Act of 1965 and subsequent federally funded educational opportunity programs.

Motivation: Human motivation and need to fulfill three innate and universal needs of autonomy, competency, and relatedness.

Nonprofit: Management orientations and leadership styles impact on employee motivation.

## PROFESSIONAL EXPERIENCE

---

2012–Present     ***Director of Academic Advising, Academic Success Center, University of Nevada, Las Vegas***

Administrative Experience: Responsible for the ongoing management of all operations of the ASC Advising Unit to include the hiring, training, supervision and evaluation of academic advisors and related staff. Oversee the supervision of six (6) administrative faculty, one (1) classified staff, and (2) graduate student advisors; and develop annual and ongoing assessment for the unit. Duties include strategic planning, collaborative decision-making, assessment of progress toward the attainment of unit goals, and using assessment to inform practice.

Academic Support: Provide proactive developmental academic advising for undeclared majors that includes information literacy, programming, course selection, curricular sequencing, major/minor selection, and interpretation of university policies. Serve as the class concierge for the university, which requires hearing student complaints and assisting them with overcoming barriers to their educational goals.

2005-2012     ***Director, Academic Success Center & TRIO Student Support Services, Eastern Washington University***

Administrative Experience: Responsible for the ongoing management of all operations of the Academic Success Center which included the supervision of eleven (11) administrative exempt employees, three (3) academic faculty, and one (1) classified staff. Managed 10 program financial accounts for multiple programs with different fiscal years. Accounts totaled over \$1 million annually. Additional duties included strategic planning, program assessment, team building, conflict resolution, and leading the design and implantation of multiple student success programs that required productive collaborative campus partnerships.

Academic Support: Personally provided proactive developmental academic advising for first-generation, low-income, and students with a registered disability. Direct services provided to students included individual and group tutoring, financial literacy counseling, course instruction (e.g., EDUC 150), academic advising, and mentoring.

2004-2005     ***Assistant Director, Academic Support Center & TRIO Student Support Services, Eastern Washington University***

Main Responsibilities: Coordinated the campus-wide tutoring program including the supervision of over 20 group facilitators and tutors. Designed curriculum for and taught a first-year seminar course (i.e.,

EDUC 197). Provided academic advising to a caseload of 80-100 students each quarter.

2003-2004 ***Supplemental Instruction Program Coordinator (PLUS), Academic Support Center, Eastern Washington University***

Main Responsibilities: Coordinated the campus-wide tutoring program including the supervision of over 15 group facilitators and tutors. Designed curriculum for and taught a first-year seminar course (i.e., EDUC 197).

1999-2003 ***Group Facilitator & Tutor, Academic Support Center, Eastern Washington University***

Main Responsibilities: Facilitated supplemental instruction groups for biology and psychology courses which included designing weekly curriculum, marketing groups to students, regular meetings with faculty members, and offering individual tutoring sessions.

## **GRANTS AND AWARDS**

---

Emerging Scholar Award, Association for Research on Nonprofit Organizations and Voluntary Action (ARNOVA), 2015.

Soaring Eagle Staff Award, Annual Student Leadership Excellence Award Ceremony, Eastern Washington University, 2012.

Advocacy Award, Washington State TRIO Association, 2011.

TRIO Student Support Services five year grant proposal, funded at \$410,000 per year, 2010.

Excellence in Quality Service Award, Eastern Washington University, 2007.

Education Assistance Foundation Grant, funded at \$22,500 for one year, 2006.

TRIO Student Support Services five year grant proposal, funded at \$378,000 per year, 2005.

## **PUBLICATIONS**

---

Brown, A. (2015). Key factors in establishing a dynamic student-centered academic advising unit. Invited Chapter in McDonough, A. (Ed.). *Expect Success! Academic Success Programs for Higher Education: A Collection of Practical Essays*. St. Paul, MN: Armita Press.

Watkins, P. C., Grimm, D. L., Whitney, A., & Brown, A. (2005). Unintentional memory bias in depression. In A. V. Clark (Ed.), *Mood state and health* (pp. 59-86). Hauppauge, NY: Nova Science.

## PRESENTATIONS

---

### Keynote Presentations

*“Endowing the David L. Swanson Memorial Scholarship: A War Hero’s Legacy”*, Keynote Speaker, EWU Foundation Donor Reception, Cheney, WA, 2008.

*“Outcomes of the PLUS Program Expansion”*, Keynote Speaker, College Spark Board of Directors Annual Meeting, Spokane, WA, 2007.

### Lecture Presentations

*“Examining the Impact of Corporatization on Motivation of Higher Education Faculty in Public and Nonprofit Universities”*, Association for Research on Nonprofit Organizations and Voluntary Action (ARNOVA), Washington, DC, 2016 (with Jessica Word).

*“Corporatized Higher Education: A Quantitative Study Examining Faculty Motivation Using Self-Determination Theory”*, West Coast Data Conference, Las Vegas, NV, 2016.

*“Crowding Out or Aligning Incentives: Motivating Nonprofit Employees through Altruism or Materialism”*, Association for Research on Nonprofit Organizations and Voluntary Action (ARNOVA), Chicago, IL, 2015 (with Jessica Word).

*“Enrollment and Advising Strategies – Working Group Presentation”*, Nevada System of Higher Education Implementation Summit, Las Vegas, NV, 2015 (with Peter Kim, Patricia McCrory, Natalie Brown, Lee Raubolt, Melissa Deadmond).

*“Innovative Academic Advising”*, Council for Opportunity in Education, TRIO SSS Innovative Forum, Chicago, IL, & San Diego, CA, 2014 (with Andrea Reeve).

*“Institutional Support to Enhance Productivity”*, Council for Opportunity in Education, TRIO Legislation and Regulations Seminar for Institutional Teams, Dallas TX & Denver, CO, 2013 & 2014.

*“Institutional Support: What it is and how to get it!”* Annual Meeting of the Council for Opportunity in Education, New York, NY, 2012.

*“New to TRIO?”* (History of TRIO programs and organizational structures), Washington State TRIO Association Annual Meeting, 2011.



Washington State TRIO Association, Emerging State Award Presentation, Council for Opportunity in Education, Annual Conference, Washington, DC, 2011.

*“Money Talks: A Financial Literacy Seminar”*, Northwest Association of Special Programs (NASP), Boise, ID, 2010 (with Molly Orheim).

### **Poster Presentations**

*“The Role of Risk Factors in Predicting Major Selection and Progression”*, Annual Meeting of the American Association of Social and Behavioral Sciences, 2014 (with E. Lee Bernick).

*“Involuntary Autobiographical Memory Bias in Depression”*. Presentation at the Annual Convention of the American Psychological Society, New Orleans, LA, June, 2002 (with Philip Watkins).

### **Panel Presentations**

Moderator for Panel Discussion: *“Engaging Policymakers in Identifying Academic Advising as Mission Critical”*, National Academic Advising Association (NACADA), Las Vegas, NV, 2015 (with Ann McDonough).

Moderator for Panel Discussion, *“Strengthening Relationships with Institutions for More Effective Advocacy”*, Annual Meeting of the Northwest Association of Special Programs, 2011, Panel members included M. Duane Nellis (University of Idaho President), Kathleen Ross (President emerita of Heritage University) and Administrators from Washington State University, Eastern Washington University, and the Vice President of the Council for Opportunity in Education.

Invited Panelist, McKinney-Vento Education of Homeless Children and Youths School Staff and Liaison Training, Spokane, WA, 2010.

Invited Panelist, *“Expanding TRIO Services (WaTEP)”*, Annual Meeting of Northwest Association of Special Programs, Portland, OR, 2008.

### **Webinar Presentations**

*“SSS Webinar Series: Competitive Preference Priorities 2a and 2b”*, Council for Opportunity in Education, TRIO SSS Grant Competition, 2014 & 2015 (with Andrea Reeve).

### **Other Participation at Conferences**

Chair of Concurrent Sessions, National Academic Advising Association (NACADA) 2015 Annual Conference, Las Vegas, NV.

Proposal Reader, National Academic Advising Association (NACADA) Annual Conference, Salt Lake City, Utah, 2013.

Participant, National Academic Advising Association (NACADA) Annual Conference, Nashville, TN, 2012.

Participant, American Association of Colleges & Universities (AAC&U), Student Success Conference, Seattle, WA, 2012.

President and Speaker, Washington State TRIO Association Annual Conference, Seattle, WA, 2012.

Proposal Reader, National Association of Student Personnel Administrators (NASPA), Annual Conference, 2012.

Event Planning Committee & Breakout Session Speaker, Northwest Association of Special Programs (NASP) Annual Conference, Spokane, WA, 2011.

Participant, Council for Opportunity in Education (COE), Annual Conference, Washington, DC, 2011.

Participant, Council for Opportunity in Education (COE), Annual Conference, San Antonio, TX, 2009.

Policy Seminar Team Leader, Council for Opportunity in Education (COE), Washington DC, 2008, 2009, 2010, 2011, & 2012.

Proposal Reader, Northwest Association of Special Programs (NASP), Annual Conference, Portland, OR, 2006.

## **PUBLICATIONS IN PROGRESS**

---

Word, J., & Brown, A. (submitted, fall 2016). *Motivating Nonprofit Employees through Altruism or Materialism.*

## **TRAINING AND CERTIFICATIONS**

---

Certified College Instructor, Green Dot Violence Prevention Bystander Training, Las Vegas, NV, 2014.

Certified Emergency Respondent, Community Emergency Response Training (CERT), certification completed, 2013.

Administrators' Institute, National Academic Advising Association (NACADA), Savannah, GA, 2013.

Certified Master Tutor III, College Reading and Learning Association (CRLA), Eastern Washington University, 2012.

TRIO Director Training, Council for Opportunity in Education (COE), San Antonio, Memphis, TN 2008.

U.S. Department Of Education Grant Writing Training, 2008 & 2009.

TRIO Legislation and Regulations Training, Council for Opportunity in Education (COE), Chicago, IL, 2007.

TRIO Legislations and Regulations Training, University of Idaho and Northwest Association of Special Programs, Honolulu, HI, 2006.

Certified Tutor I & II, College Reading and Learning Association (CRLA), Eastern Washington University, 2001.

## **PROFESIONAL ACTIVITIES**

---

### **Offices and Positions**

President, Washington State TRIO Association, 2012; President-Elect, 2011; Board Member, Eastern WA Representative, 2008-2011.

- Recipient of the Emerging State Award, while serving as President Elect.

Board Member, Northwest Association of Special Programs, 2012.

Founding Board Member, Washington State TRIO Association, 2008.

### **Other Activities**

Faculty Member, "Priority 2: Legislation and Regulations Training for Teams", Department of Education Grant through the Council for Opportunity in Education, 2013 & 2014.

TRIO *David L. Swanson Memorial Scholarship*, wrote MOU and raised over \$30,000 to endow account, created in honor of a World War II Veteran for low-income veterans, Eastern Washington University, 2008.

Op-Ed Guest Opinion for higher education article printed in Spokesman Review:  
<http://www.spokesman.com/stories/2011/sep/18/guest-opinion-trio-needs-to-survive-cuts/>

## **INSTRUCTION**

---

### **Undergraduate Courses Taught**

First-Year Seminars at Eastern Washington University (EDUC 197 and EDUC 150) and Financial Literacy (EDUC 196).

### **Invited Guest Lecturer**

First-Year Seminars at University of Nevada, Las Vegas (COLA 100E, COE 102, GSC 100).

### **Workshops Taught**

Green Dot Violence Prevention Bystander Training for Tutors and Academic Success Coaches, University of Nevada Las Vegas, 2015

“*Academic Advising: College Degrees*”, University of Nevada, Las Vegas, Summer of 2014, 2015, & 2016.

“*GRE Prep*”, Coordinator, Tutor, and Lecturer for Graduate Records Examination (GRE) Workshop, Eastern Washington University, 2010-2012 (with Julie Smith).

### **Online Courses**

Faculty Member & Moderator, *Student Support Services Policies & Procedures: Compliance- Based Budget & Project Management (Online Course)*, Lewis-Clark State College, 2007 & 2008.

## **UNIVERSITY SERVICE**

---

Co-chair (appointed), Infrastructure and Shared Governance Steering Committee, Top Tier Strategic Initiative, University of Nevada, Las Vegas, 2016-present.

Senior Senator (appointed), Administrative Faculty, University of Nevada, Las Vegas, one-year term, 2016-2017.

Faculty Senator (elected), At-Large, University of Nevada, Las Vegas, one-year term, 2016-2017.

New Faculty Orientation Planning Committee; coordinator for resource expo that includes outreach and recruitment of table hosts; University of Nevada, Las Vegas, 2016-present.

Scheduling and Enrollment Management Administration Group, Student Affairs, University of Nevada, Las Vegas, 2015-present.

Nevada System of Higher Education (NSHE) Advising and Enrollment Working Group, Gateway Mathematics and English Placement, Continuous Enrollment, and Academic Resources Implementation of System Policies; collaboration between four-year and two-year colleges, Fall 2015.

Executive Committee, Faculty Senate, (elected), Administrative Faculty Representative, University of Nevada, Las Vegas, one-year term, 2015-2016.

Enrollment Services Strategic Planning Task Force, University of Nevada, Las Vegas, 2015-present.

Vice Chair of the Student Achievement Subcommittee, Appointed by UNLV President to serve as a member of the Tier One Initiative Committee, 2014-2015.

Office of Information Technology Google Guide, University of Nevada, Las Vegas, 2014.

Mental Health Awareness and Suicide Prevention Task-Force, University of Nevada, Las Vegas, 2014-present.

Faculty Senator (elected), Provost Area, University of Nevada, Las Vegas, three-year term, 2013-2016.

Campus Academic Advising Assessment Committee; ASC representative; University of Nevada, Las Vegas, 2013-present.

Campus Retention, Progression, & Completion Committee; University of Nevada, Las Vegas, 2013-present.

Founding Chair, ASC Safety Task Force; University of Nevada, Las Vegas, 2013-present.

Campus Assessment Committee; University of Nevada, Las Vegas, 2012-2013.

Campus Accreditation Committee Member for the Northwest Commission on Colleges and Universities (NWCCU), University of Nevada, Las Vegas, 2013-2014.

Academic Advising Executive Team, University of Nevada, Las Vegas, 2012-present.

Academic Advising Council, University of Nevada, Las Vegas, 2012-present.

Campus Master Planning Committee, University of Nevada, Las Vegas, 2012-2013.

Chair, Student Success Committee, Eastern Washington University, 2011-2012.

Enrollment Management Team, Eastern Washington University, 2005-2010.

Consultant, Roadmap to Redesign (R2R), Teaching & Learning Center, Eastern Washington University, 2004.

Admissions Appeals Committee, Eastern Washington University, 2003-2008.

Satisfactory Academic Progress (SAP) Committee, financial aid, Eastern Washington University, Eastern Washington University, 2003-2012.

TRIO McNair Scholars Advisory Board Member, Eastern Washington University, 2005-2007.

Presenter, Admissions High School Counselor Day, Eastern Washington University, 2005.

CAMP Tutor Trainer, Chicano Education Program, Eastern Washington University, 2004 & 2005.

Comprehensive Review Committee, Admissions, Eastern Washington University, 2003-2005.

## **PROFESSIONAL MEMBERSHIPS**

---

Golden Key International Honor Society, Graduate Student Inductee, September 2016 (lifetime membership).

Phi Kappa Phi Honors Society, Graduate Student Inductee, April 2016 (lifetime membership).

Association for Research on Nonprofit Organizations and Voluntary Action (ARNOVA), 2015-present.

National Association of Academic Advising (NACADA), 2012-present.