MEASURING THE INFLUENCE OF EMPLOYER-SPONSORED TUITION BENEFITS ON EMPLOYEE RETENTION AND TENURE

by

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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

ABSTRACT

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Abstract

This quantitative research study builds on existing theoretical concepts of human capital management, expectancy theory, and psychological contracts to show that utilization of employer-sponsored tuition benefits (ESTB) by higher education employees directly correlates to increased employee tenure and retention. ESTB utilization over a 10-year period was measured using hierarchal logistic regression on a sample of 458 newly-hired employees broken down by employee class, ethnicity, and degree type. Results found that the 128 employees who utilized ESTB remained employed 3.08 years longer on average than employees who did not use the benefit, projected to increase by 6.6% on average for every 100% increase in tuition utilized. Employees who utilized the ESTB showed a 36.4% greater probability of remaining employed all 10 years with the odds of remaining with the organization all 10 years increasing by 98% for every additional year of undergraduate education awarded at $40,000 through the ESTB. There was also found to be a positive relationship between employee class and ESTB utilization with exempt employees and faculty driving the results. These are significant findings in the field of employer benefits, as this new research offers university leaders such as Chancellors, Chief Executive Officers (CEOs), Human Resource Executives, and Chief Financial Officers (CFOs) empirical evidence to strategically manage employee retention and tenure through the use of ESTB programs rather than simply relying on “gut instinct.”

Chapter 1

INTRODUCTION

Competition for quality employees in today's competitive market is increasing and employers are relying heavily on indirect compensation packages such as employee benefits and employee development programs to attract and retain quality talent. Multiple studies show that extrinsic rewards in the form of benefit plans positively influence employee motivation (Hafiza, Zaman & Jamsheed, 2011; Tippet Kluvers, 2009) but few studies can specifically link these extrinsic rewards to employee retention. Employee retention is important to organizations because research shows turnover is expensive. Boushey and Glynn (2012) found that it costs roughly 20% in additional expenses over original compensation to replace an outgoing employee, but similar research finds that cost closer to 100% for each position lost (Bryant & Allen, 2013.) In terms of actual dollars, Ramsay-Smith (2004) found that it typically requires $78,000 to replace an employee making an annual salary of $46,000. Replacement costs typically exist in the form of temporary labor, advertising, recruitment, training, and both salary and productivity differential (Garman et al. 2005). While other literature exists on the drivers and consequences of turnover (Griffeth, Hom, Gaertner 2000; Hancock et al 2013), there is much opportunity for employers to identify and provide benefits that incentivize employee retention at a cost that is sustainable for the organization.

While multiple benefits within an indirect compensation package may collectively serve to influence employee retention, the focus of this research is the employer-sponsored tuition benefit, or ESTB. An ESTB is defined as an organization's full or partial coverage of the tuition costs of their employees or employee-dependents partially in exchange for the employee's gainful employment. Many higher education employers have chosen to offer a tuition assistance

benefit to their employees with the hope that it will attract them to the organization and retain them during and after the time it takes them to pursue their degree. The cost of providing these benefits to employees varies based on the tuition cost of the institution and the percentage of the coverage, but it is unknown whether that organization's large financial outlays to offer the benefit have a positive impact on employee retention and tenure. This research study sought to examine whether offering an ESTB to employees had a positive impact on employee tenure and retention.

Statement of the Problem

The problem to be addressed in this study was whether offering tuition assistance in the form of an ESTB leads to employees being more likely to retain their employment and increase the length of their tenure. Many organizations attempt to attract, retain, and educate workers through rich employer-sponsored benefit packages and robust organizational development programs. Tillman (2013) found that employees who self-report satisfaction or extreme satisfaction with their employer's benefit package, are six times more likely to remain at that organization than those who are dissatisfied. However, budgets allocated for employee benefits are limited, and cutting the budget often leads to a scaling back of indirect compensation for university employees in the form of benefit budgets. Employer-sponsored tuition programs fall into this category, largely because tuition costs have been rising and the competition for finite resources on a university level becomes more imperative (College and University Professional Association for Human Resources Benefit Survey, 2016).

While reducing or eliminating ESTB programs may result in greater financial flexibility in the short-term, an unintended consequence may be the reduction in the attraction and both long and short-term retention of quality employees. Therefore, it is imperative for universities to

examine the impact that an ESTB has on attracting and retaining top employee talent. This study specifically examined the relationship between employee utilization of an ESTB and overall employee retention and tenure. If employees who utilize the ESTB are more likely to retain their employment, there is a strong justification for maintaining and expanding such programs, even in the midst of financial hardship. If no relationship exists, universities might look to cutting ESTB programs in order to accommodate for budget shortfalls.

Purpose of the Study

The purpose of this study was to examine the relationship between the utilization of an ESTB offered at a private mid-sized university in the southwest and employee retention and tenure at that university. Utilization was measured by the use of the ESTB, as well as the total ESTB tuition money awarded to the eligible employee, employee spouse, or employee dependent. Tenure was measured as a continuous value determined by the number of years the employee stayed employed within the ten-year timeframe studied. Retention was measured as a binary value determined by whether the employee remained employed for the full ten years based on the timeframe studied. Both dependent variables tenure and retention were measured for all employees, along with independent variables for ESTB utilization, total ESTB tuition award amount, and employee classification. Employee sex and ethnicity were also collected to serve as control variables in some of the analyses. The relationship between these independent and dependent variables were examined through the following three research questions.

RQ1: Does utilization of employer-sponsored tuition benefits (ESTB) by higher education employees influence employee tenure over a ten-year period?

RQ2: Does utilization of employer-sponsored tuition (ESTB) benefits by higher education employees influence employee retention over a ten-year period?

RQ3: Is there a relationship between employee class (faculty, exempt, non-exempt) and ESTB utilization?

Significance of the Study

Existing research on the effectiveness of ESTB programs, especially within the field of higher education, is very limited. Tuition reimbursement programs have long been an important component of the employee development strategies of many employers (Dougherty & Woodland, 2009), but identifying the value in terms of retention is difficult. University leaders such as Chancellors, Chief Executive Officers (CEOs), Human Resource Executives, and Chief Financial Officers (CFOs) generally assume that tuition assistance programs help attract and retain quality talent. Bryant and Allen (2013) found that to manage retention, leadership tends to rely on "gut instinct" rather than empirical evidence to make retention decisions, thus leaving a gap in knowledge. Higher education administrators are typically left to shape their beliefs about ESTB programs based on anecdotal data in order to make strategic funding decisions regarding the outcomes of tuition benefit offerings.

When specifically examining employee-usage of the ESTB, most published studies tend to focus on attraction and retention before or during the pursuit of a degree (short-term), but few studies have analyzed long-term employee retention beyond degree achievement. Those studies that do focus on short and long-term retention based on ESTB utilization are often forced to compare inconsistent population sets over time making their findings rather speculative. This research study is unique in that it tracked a set population of employees, hired during a specific time period, over 10 years to ensure that utilization data and eligibility periods were consistent.

By uncovering this data on long-term retention and tenure, employers can examine the lasting implications that an ESTB program might have on the organization. This study serves to

assist university leadership in strategic planning as they are faced with future decisions to increase, maintain, or reduce university-sponsored tuition assistance benefit (ESTB) programs. Furthermore, this study helps fill the gap in existing literature by examining long-term relationships between ESTB programs and employee retention and tenure. The sample chosen provides significant findings to those institutions similar in general makeup as the one used in this study who offer a similar benefit to its employees.

Theoretical Framework for the Study

The conceptual framework is the system of concepts, beliefs, assumptions, expectations, and theories that support and inform the research study and plays a key part of the research design (Miles & Huberman, 1994). Many concepts driving research related to employee retention and the benefit programs, revolve around the employee-employer relationship. This study is framed around the theory of a psychological contract between an employer and employee that is based upon an employer's need for human capital and an employee's expectations of the benefits from utilizing an employer-sponsored tuition benefit program.

Human Capital Theory

Human capital consists of the knowledge, skills, and expertise, held by employees of an organization gained through such things as employer training, higher education, or experiential learning (Hatch & Dyer, 2004). Organizations value human capital as it serves to provide a competitive advantage within industry through employee productivity and business continuity. Gary Becker's (1964) seminal work on Standard Human Capital created a foundation for organizations to track the investment in human capital by making the distinction between the value of general and specific employee skills. Becker defined firm-specific human capital as employee skills showing value only to the existing employment relationship, while general human capital

refers to employee skills that are transferable and thus valuable to both existing and future employers (Flaherty, 2007). For an organization to maximize value of an ESTB within the confines of this theory, human capital increases the value of the current organization through employee education but does not contribute to an increase in employee mobility to future employers. Research has shown that employees who hold tacit general knowledge or specific knowledge transferable across organizations are valuable to other firms (Herstad, Sandven & Ebersberger, 2015). Because transferable knowledge increases the marketability of an employee, employers must cope with the idea that employees do utilize an ESTB with the expectation that it will not solely benefit the organization, but also contribute to personal advancement. Aligning the organizational goals with employee expectations lies at the heart of this contextual framework.

Expectancy Theory

Expectancy Theory is a method of uncovering these employee expectations thus ultimately allowing organizations to meet or exceed them through actions or compensation. Expectancy Theory (Vroom, 1964), seeks to identify the conditions necessary for worker motivation to occur introduced by the factors of instrumentality and valence. Instrumentality is an employee's belief that positive performance will be followed by rewards or some work-related outcome holding value while valence is the value that employee assigns to the rewards or work-related outcome (Schermerhorn, 2010). In order for reward systems such as ESTB programs to motivate employees, the reward systems must have value to the employee and they must be applied fairly. If certain employee expectations are not met or addressed by an organization, the employee may seek employment elsewhere feeling a psychological contract was broken.

Psychological Contract

The term psychological contract is used by researchers to describe the subjective beliefs about an exchange agreement between the employee and their employer formed through their continuous interactions and expectations. Kickul (2001) describes psychological contracts in the workplace to be oral or written promises such as competitive salary, opportunities for promotion and advancement, support from management, and benefits. These outcomes are typically linked to job performance, recognition of accomplishments, and increasing responsibilities on the job. Rousseau (1995) originated this concept by identifying two main types of psychological contracts: transactional and relational. Transactional contracts tend to be more short-term oriented, require low emotional investment, and include economic conditions as motivation (Rousseau 1995, DelCampo, 2010). In this case, the transaction might refer to productive employment exchanged for the sponsorship of undergraduate tuition cost for an employee dependent. Once the dependent graduates, the tuition benefit ceases to hold much value to the employee thus motivation to remain employed at the organization must be found through other means. Relational psychological contracts, on the other hand, tend to focus on open-ended, long-term personal relationships with higher emotional involvement. This model better represents the exchange of gainful employment for an employee's personal education upon completion of a degree. The employee not only enters into a transactional psychological contract with the employer for time served while pursuing the degree but also a relational contract for what future opportunities are presented at the organization as a result of the completion of the degree. Pushing back on Becker's original theory of human capital, Benson, Finegold, & Mohrman, (2004), found that the marketable skills obtained by earning a degree through the tuition benefit can actually increase an employee's willingness to stay, based on the organizational support received both during and after graduation. The core

concept behind functional exchange relationships, or psychological contracts, is that two parties share an understanding, while striving to maintain a fair balance in the reciprocal contributions that each has to offer to one another (Blau, 1964). Each party has the ability to breach or violate a psychological contract that may have consequences. Maintaining these human relationships can be complicated since obligations, expectations, pressures, balance of information, and inherent risks are different between employees and organizations are both constantly changing. Thus, the utilization of an ESTB program is essentially a psychological contract between the employer and employee, where the two parties hope to create an agreement that benefits both in a meaningful way.

This study links the theories of human capital, expectancy theory, and the psychological contract through understanding the motivations and eventual outcomes associated with offering an employee-sponsored tuition benefit. Figures 1 and 2 illustrate this relationship as the theoretical framework for this study.

Figure 1

Theoretical Framework. Human Capital Theory and Expectancy Theory. Source: Components of human capital theory. Adapted from "Diagnosis or determination by E. J. Reed and G. Wolniak,

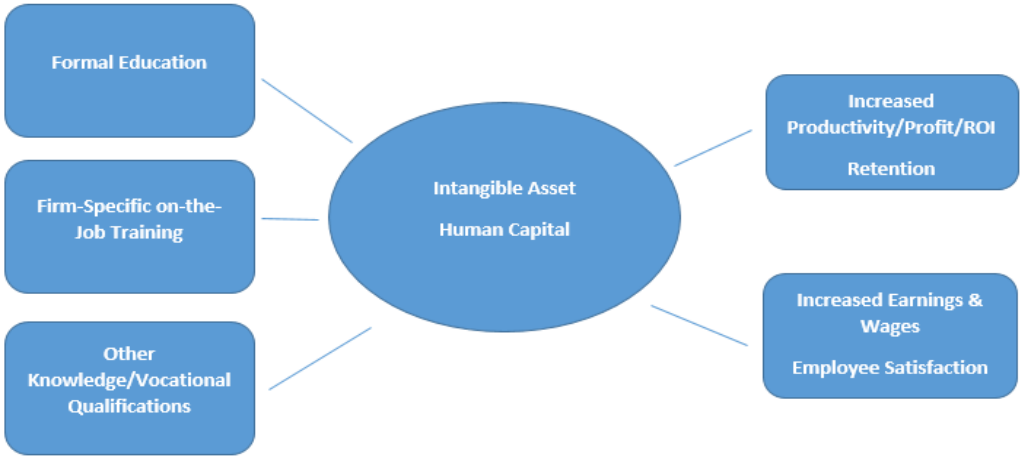


Figure 2

Theoretical Framework: Human Capital Theory, Expectancy Theory, and Psychological Contracts.

Definition of Terms

***Employee Turnover*:** The replacement of one employee for another employee within a given organization. This replacement can be initiated by either the employer or the employee. Employee turnover is measured as a percentage rate of employees that leave the organization in relation to the active employee population of the entire organization within a defined period (Tracey & Hinkin, 2008).

***Employee Retention*:** The percentage of employees who actively remain at an organization over a defined time period in relation to the number of employees who leave the organization during that same period (Hong, 2012). For purposes of this research report, retention is classified as having worked at the university for ten full years.

***Employee Tenure*:** Term used in this research report to classify the number of continuous years that an employee remains actively employed at the university.

***Employer Benefit Programs*:** Collection of non-wage benefits or indirect compensation which when added to an employee's salary, make up the total rewards package. The use of benefits as a recruiting device is prevalent in the fields of labor and human resource economics (Mulvaney, 2014).

***Employer-Sponsored Tuition Benefits (ESTB)*:** Non-wage benefit offerings provided by organizations in which employees are fully or partially reimbursed for tuition costs in return for performing the duties of their job description (Rosen, 1986). The richness of an ETB program varies by eligibility requirements, percentage of tuition reimbursement, degrees offered, degree-types offered, credit limits per semester, age limits, organizational retention after graduation. Additionally, the richness of a degree varies by institution (Buddin & Kapur, 2005).

***Exempt-Staff*:** An employee classification by the United States of America Department of Labor in which employment is not measured by the hours worked but rather by the completion of a particular job. As such, hours are not tracked and overtime pay is not required. Sometimes referred to as salaried employees (Blonin, 1992).

***Non-Exempt Staff*:** An employee classification by the United States of America Department of Labor in which employment is measured by hours worked and thus governed by minimum standards of pay and overtime pay requirements for those employees working over forty hours per week. Non-exempt employees are sometimes referred to as hourly employees (Blonin, 1992).

***Faculty*:** An employee classification within the higher education industry to describe teachers and mentors paid a set salary to educate students within a classroom setting (BoSold,

2012). Faculty at the university within this particular case study receive the same benefits package as exempt and non-exempt employees, save for the way that vacation and sick leave is tracked.

***Higher Education Degree*: T**he successful completion of an undergraduate, graduate, or post-graduate program accredited by a quality assurance agency for higher education (Green, 2011). Given the diversity in mission, size, delivery, modes, and opportunities offered by higher education in the United States of America, recognizing the value of a degree is difficult to generalize.

***Terminal Degrees*:** Degrees in which a faculty member is considered an expert in his or her field, and at which a tenure-track and tenure position is a possibility within the higher education industry (Lankford, 2001). Terminal degrees would typically encompass doctoral or master's degrees such as MBAs and MFAs. Faculty included in this study are assumed to already possess a terminal degree which may limit their value of an ESTB to that of largely dependent or spousal tuition.

***Psychological Contracts*:** Subjective beliefs about the exchange agreement between two parties formed through continuous interaction. The psychological contracts relevant to this study include promises such as competitive salary, opportunities for promotion and advancement, support from management, compensation and bonuses tied to performance, recognition of accomplishments, and increasing responsibilities on the job (Kickul, 2001).

***Quality Employees*:** Employees who bring added value to an organization in the form of increased production, influence, or knowledge measured by such metrics as salary, tenure, influence, responsibility, or productivity (Chun-Li, 2017).

***Job Satisfaction*:** Sum of the characteristics of a job and work environment which employees find rewarding, fulfilling, and satisfying (Churchill, Ford, and Walker 1974). Sub-specialties of job satisfaction include understanding employee behaviors, attitudes, and perceived organizational support (Babakus, 1999; Eisenberger et al., 1997), organizational commitment (Brown & Peterson, 1993), and the propensity to leave a job (Boles, Johnston, & Hair, 1997)

Assumptions and Limitations

Assumptions

This quantitative research study as performed on a small sample of employees within the higher education field at a private institution in the Southwestern United States. The researcher accepted the following eschewed values and assumptions upon embarking on the research analysis:

- The data collection and subsequent analysis of the sample set was assumed to be accurate and representative of the populations being examined;
- This study attempted to determine if utilization of employee-sponsored tuition benefits influenced employee retention by analyzing longitudinal data over a period of ten years;
- The researcher assumed that if the retention rate of the portion of employees within the population set utilizing the ESTB was statistically higher than the retention rate of employees within the population set not utilizing the ESTB, then the ESTB positively influenced retention during the measurement period;
- The researcher assumes that the analysis and interpretation of the data at this institution provided reliable and valid measurement of employee retention that are

transferable and replicable at a number of other higher education institutions, both large and small, public and private;

- It is assumed that the organization values, the recruitment and long-term retention of quality employees, and the organization makes decisions regarding employee benefits for both the financial health of the organization and also for the safety, security, and betterment of their employees; and
- The researcher assumed that the general and specific skills obtained through the pursuit of a degree through an ESTB within higher education were valued by employers, employees, and society as a whole.

Most importantly, the researcher realizes that the human experience is complex and employees do not exist in a vacuum within an organization or industry. The researcher assumed that while the data uncovered in this study was helpful in making organizational decisions, ESTB programs are only one of a number of factors that influence employee behavior.

Limitations

There were several limitations evident to the researcher before completing this quantitative research study. This study focused on the relationship or influence of one specific benefit within an entire benefit package regarding employee retention. The sample obtained represented a specific population of employees from one institution as well. Given the complexity of modern systems, attraction, and retention within a higher education organization, it is difficult to correlate retention or turnover back to one single variable and apply it to other organizations (i.e. the ESTB program). Thus, the following limitations apply to this study:

- Employees utilizing the ESTB within this study may have separated from the university for reasons outside of the scope of this study;

- Similarly, employees within the study may have remained employed at the institution for employee benefits outside of the scope of this study, such as salary or medical insurance;
- Factors unrelated to direct or indirect compensation may have influenced recruitment and retention at higher education institutions such as social status, community impact, or sense of purpose;
- When comparing the results of this study to other institutions, the richness of employer-sponsored tuition benefits may vary, making it difficult to compare programs to one another or make blanketing statements about the benefit in general;
- The sample and type of higher education institution involved in this case study may not be indicative of the higher education employee population at large;
- This study included benefit-eligible employees at a specific university, so entire populations of employees such part-time employees or adjunct faculty hired within the designated period were excluded and their employee retention were not studied;
- This study did not separate voluntary termination versus involuntary termination. Therefore, any termination deemed healthy to an organization were not filtered out; and
- While this study benefits from the use of longitudinal data, the data are limited in the number of employees included to make this possible.

Summary

In summary, the purpose of this study was to examine the relationship between the utilization of an ESTB offered at a private mid-sized university in the southwest and employee retention and tenure at that university. The conceptual framework revolved around the relationships between employers and employees, but existing research on the effectiveness of ESTB programs was limited. Some studies have examined the benefits of an ESTB on employee development, and most published studies tend to focus on attraction and retention before or during the pursuit of a degree (short-term). This study attempts to add to the current research by examining the long-term effects on retention and tenure. While there are limitations and assumptions to this study, mostly with regard to its generalizability and scope limitations, this study hopes to assist university leadership in strategic planning, as they are faced with future decisions to increase, maintain, or reduce university-sponsored tuition assistance benefit (ESTB) programs.

Chapter 2

LITERATURE REVIEW

This Literature Review begins by documenting the historical context surrounding the origins of employer-sponsored benefits, followed by an analysis of existing research on specific benefits found to drive employee attraction and retention. The next section focuses on institutions and the rationale of investing in human capital through the use of employee benefits, with a special focus on the employer-sponsored tuition benefit (ESTB). The researcher examines the ESTB programs through the employee lens, with an emphasis on theoretical drivers, such as organizational commitment, expectations, psychological contracts, and basic human desires for self-improvement. The chapter concludes with a detailed look into research conducted in the field of organizational development with a focus on improving employee engagement and job satisfaction before, during, and after participation in an ESTB. This literature review aims to provide more than a simple chronology of events but instead to identify major issues, themes, outcomes, and ideas that contribute to the fields of study relevant to the research questions.

Overview of Employee Benefits

As employees become more skilled, they also become more marketable, and thus organizations are challenged to find new and innovative ways to attract and retain their highest quality employees. One such method is to provide an employee benefit package (indirect compensation) above and beyond traditional wages or salary (direct compensation). Employee benefits, also referred to as fringe benefits, perquisites, or perks, are made up of (but not limited

to) group health insurance, group dental insurance, life and disability insurance, retirement benefits, paid and unpaid leave, social security, and employer-sponsored tuition benefits. The following section will provide a glimpse into the origins and trends of employer-sponsored benefit packages with an emphasis on the employer-sponsored tuition benefit (ESTB) programs. This study will examine how ESTB plans came into existence and how they are leveraged by employers to reduce turnover, increase employee engagement, and ultimately create stronger organizations building on existing research by Thompson, Lemmon, & Walter, 2015; Obiefule, P. N. C. (2012).

Most industrialized nations contribute to the welfare of their citizens through government-sponsored programs that provide for health and safety to protect citizens from the consequences of economic fluctuations (Dulbohn, Malloy, Pichler, & Murray, 2009). Dating back to the late 19th century, the United States chose instead to push social welfare benefits and health, safety, or leisure programs largely through private employers (Klein, 2004). A major piece of legislation was signed in the United States in 1933 by Franklin Roosevelt called the New Deal, which structurally linked these competing ideas through business models, labor forces, and the state, with a set of ideological expectations that governed their interactions (Klein, 2004). The purpose of this bill was to stimulate the economy following the Great Depression partly by incentivizing employers to offer benefit programs as indirect compensation. Jacoby (1997) coined this type of security offering as "welfare capitalism," where financial security is provided to employees in the form of benefit packages in exchange for their services. Whether accomplished through public or private means, benefits provide for the health and safety of employees provide a certain stability to organizations and ultimately to society.

However, benefits are also extremely expensive. According to a report from employer-benefits tracker Kaiser (2017), forces such as globalization, an aging workforce demographic, skyrocketing tuition prices, and health care and pharmaceutical costs have all contributed to the rising costs of employer benefits over the past 85 years. Non-governmental organizations have shouldered much of that burden. Willis Towers Watson (2015), a global benefits consulting firm, performed a relevant study on the benefit offerings of all Fortune 500 companies in the United States and found that the cost of employee benefits as a percentage of pay rose from 14.8% in 2001 to 18.3% in 2015. Even with this rising cost share, benefits are still viewed as an important, if not essential, investment for organizations to gain or maintain a competitive advantage. The Employee Benefit Research Institute (EBRI), an organization founded to enhance the development of benefit programs through objective research, found that the employer benefits package was listed as an important or very important factor in determining whether a prospective employee accepted or rejected a job (Fronstin, 2015). Twenty-two percent of respondents indicated that they have accepted, quit, or changed jobs in the past strictly based on the richness of an employer's benefit package (Fronstin, 2015). Because research tells us benefit packages are valued, the next section will explore the major benefit components of these packages individually, focusing on medical insurance, retirement plans, and tuition remission.

Healthcare Benefits

Organizations typically offer up a package of organizational benefits that aim to contribute toward overall employee satisfaction. In an effort to add perspective to the subsequent discussion on ESTB programs, the researcher must also understand the value of other major benefits, specifically medical and retirement benefits, and how these benefits exist within the context of the entire indirect compensation (benefits) package. The research of Smith and

Medelia (2015) showed that employer-sponsored health insurance is the single largest source of health coverage in the United States, covering 55.7% of the population. This research was reinforced by Baily and Chorny's study (2016), which found that roughly 60% of employees receive their health insurance through an employer. While both of these findings show that medical benefits are prevalent amongst organizational benefit packages, determining the specific value that a medical benefit has in relation to the other benefits offered in a package is difficult. One such attempt was through the Employee Benefits Research Institute's (EBRI) "Health Confidence Survey," which showed that between the years 1999 and 2015, surveyed employees ranked health insurance as the first-or second-most important benefit provided by employers. In their research on the evolving dynamics of employer-sponsored health insurance, Graves and Mishra (2016) asserted that while medical insurance is the predominant form of health insurance coverage in the United States, little is really known about the effect that employer-sponsored insurance has on employee retention and turnover over time. Abramowitz and O'Hara (2017) contended that employees with pre-existing medical conditions were less apt to take positions that failed to offer employer-sponsored medical insurance. Graves and Mishra (2016) found that over a two-year period in 2010, 34.6% of adults with employer-sponsored health insurance experienced a change in job status resulting in the loss of medical coverage, with young adults, Hispanic males, and low-income adults being the most affected groups. Because the employee groups listed above find themselves with special categorical labels, such as "marginalized" or "vulnerable," employees who fall within these groups may be prone to remain employed at organizations that they may have otherwise left. In a subsequent study, Baily and Chorny (2016) coined this reluctance to change jobs for fear of losing employer-sponsored medical coverage as "job lock." It will be interesting to determine if this sort of job lock also expands to benefits

other than health insurance as this will provide insight as to which benefits provide employee value and ultimately organizational ROI through retention.

Retirement Benefits

A second major contributor to the richness of employer benefit packages are employer-sponsored retirement plans. Retirement plans are secured investments, mainly in the form of mutual funds, made by employers to retirement vendors on behalf of employees to use once they retire from the organization. These investments are used to attract and retain quality employees as a form of indirect compensation, which often requires one to work for a particular organization for a predetermined amount of time before becoming fully vested. Benson (2006) coined the term "golden handcuffs," to metaphorically describe this bondage between an employee and employer before a benefit fully vests. Retirement benefits can come in the form of defined benefit plans (pension) or defined contribution plans (401(k) or 403(b)) in exchange for service to an organization. Defined benefit (DB) plans offer employer investments in the form of lifetime annuities while defined contribution (DC) plans tend to be liquid and can be accessed by employees in retirement. DC plans consist of 401(k) plans, 403(b) in non-profits, 457(b) plans for key employees, and also 457(f) deferred compensation plans. A 401(k), as defined by the Internal Revenue Service (IRS) in their 401(k) resource guide, is a qualified profit-sharing plan that allows employees to contribute a portion of their wages into tax-deferred retirement accounts up to $19,500 for employees under the age of 50 and $26,000 for those employees over the age of 50 in 2021 (IRS, 2021). A 403(b) plan is identical to a 401(k) but is found only within the not-for-profit business sector. Eligible plans under IRC 457(b) in 2021 allow for key employees of the organization to defer taxation on an additional $19,500 or $26,000 (IRS, 2021). Ineligible plans under IRC 457(f) allow organizations to defer income taxation on employer-

funded retirement contributions. There are no contribution limits on 457(f) plans but the full balance becomes taxable on the vesting date thus employers use these accounts as retention tools for key employees (Nevius, 2017). Both Research by Buessing and Soto (2006) analyzed Department of Labor 5500 filings, showing the number DB plans to be shrinking as high numbers of older employees begin to retire. Poterba et al. (2007) found this to be driven by the fact that previous generations placed a higher value on organizational loyalty which lent to increased value of pension-type models. Cotter's (2009) research showed similar findings related to defined contribution plans. DC plans tend to be more popular with younger employees. Turnover rates amongst younger employees were shown to be higher, thus making retirement plans with shorter vesting periods more valuable. Joint research by two leading firms in the benefits industry, Hewitt and Associates and Fidelity Investments (2006), reinforced this theory by showing that large percentages of departing employees in their 20's and 30's were liquidating their 401(k) and 403(b) plans rather than rolling their savings over to new tax-advantaged plans when they transitioned to new jobs. Organizations may seek to build on these findings to explore the idea of stratifying retirement benefits, or even benefit packages as a whole, based on the polarization of values between multiple generations of employees within similar organizations. Regardless of the modes of investment and distribution, existing research confirms that retirement benefits continue to be a heavily valued piece of the benefits package.

Employer-Sponsored Tuition Benefits

Employer-sponsored tuition assistance benefits are a way for an organization to unilaterally enhance its benefits package, thus increasing its competitive advantage by attracting and recruiting quality employees to remain at an organization for long periods of time. An employer tuition benefit, in its most basic form, is defined as an organizational or employer

investment in all or part of the tuition cost of one of its employees with the ultimate goal of helping them obtain knowledge or skills, culminating with the achievement of an undergraduate or advanced degree or even a certification. Historically, prior to World War II, most young people went directly into the labor market and learned their occupation on the job rather than in a classroom. A college education was generally considered a luxury good, rather than the essential step toward employability that it has now become (Leef, 2005). Thus, the popularity of tuition assistance benefits was unexpected, as it quickly developed into an attractive employment practice for recruitment, training, and retention (Manion, 1990). Babson (1999) estimated that over 6% of all undergraduate and 20% of all post-secondary tuition in the United States is in part funded by employers through employer-sponsored tuition benefits. This benefit has become so popular that 80% of large employers (over 500 employees) offer general education assistance to their employees, according to research conducted by Buddin and Kapur (2005).

Generally speaking, a tuition benefit has the following variables that determine the richness of the plan: the amount of reimbursement, eligibility criteria, and academic standards. The amount of reimbursement is largely driven by the tax-advantaged status that benefits create. In the case of ESTB programs, undergraduate tuition can be offered tax-free to the recipient, while the reimbursements from employer-paid graduate tuition benefits are exempt from taxes under Section 127 of the United States Internal Revenue Code up to $5,250 per tax year (IRS, 2021). In terms of eligibility criteria, most higher education tuition plans cover one or more of three categories of students: employees, employee-spouses, or employee-dependents (Fuesting, Schmidt, Bichsel, 2020) Each level of the benefit is typically accompanied by a different set of eligibility requirements such as employment tenure or job level (CUPA-HR, 2020). Masked University, the institution referenced in this quantitative study, requires that employees work at

least 75% of the full time equivalent thus excluding part-time, leased, adjunct, or student employees. A Sibson (2016) consulting study of 450 private and public higher education institutions found that 71% of the institutions allowed dependent children of employees to attend their institution under the employer- sponsored tuition benefit, though eligibility requirements tended to vary. Similar to the "golden handcuff" referenced in the study of retirement benefits, eligibility or vesting periods are often attached to ESTB programs as a way to extend retention at an organization. These are preset periods of time when an employee must work for an institution at a specified level before they or their dependents become eligible to take classes under the tuition benefit. Shorter eligibility periods generally equate to richer benefits from the perspective of the employee. For instance, 50% of these higher-education institutions (HEI) in the Sibson (2016) study required that employees work at least one year before the benefit became effective, a requirement that became increasingly more common among HEIs from 2012 through 2015.

The types of degrees available can also vary in terms of undergraduate, graduate, post-graduate, certificate programs, all contributing to the overall richness of the benefit. Organizations can limit, at their discretion, the number of degrees or types of degrees sponsored for the various student groups. The tuition benefit offerings for dependents seemingly favor faculty or staff with college-aged children or spouses, but Friedenthal (1973) found that it had minimal discriminatory effect because the value to the employee is factored into the overall compensation package at the time of hire, thus the benefit could have a future value unknown to the employee at any given time. Colleges and universities are in a unique and advantageous position to provide tuition benefits, the very product that they sell to the public, to their employees and employee-dependents. The quality of education provided may also affect the richness of the benefit, as schools with a higher perceived stature or national ranking may

indirectly provide more value than that from a lower-ranking institution. Universities have the choice to offer an employer-sponsored tuition benefit for classes taken at the employing university only or at other institutions as well. Highly selective universities where employee dependents may not be academically eligible, may offer to pay the partial or full tuition at competing institutions as a way to add value and richness to their offering (CUPA-HR, 2020). A more formalized way of offering this option is through tuition exchange programs. Tuition exchanges are consortiums of similar-ilk institutions that allow member schools to trade dependents of university employees on a one-to-one basis, thus expanding the undergraduate educational pool from one university to many (Dur, Umut and Unver, Utku, 2015). The Tuition Exchange (www.tuitionexchange.org) is one such exchange where currently more than 720 schools pay member fees to belong and will subsequently accept dependent applicants from other exchange members and which then allows their own employees' dependents to attend other schools within the exchange. Alternate forms of the employer-sponsored tuition benefit, such as extended education, personal development, community college offerings, certificates, and audited classes, are sometimes offered and increase the value of the benefit plan based on the cost of the programs and the value that they hold to a particular group of employees.

Employer Costs and Benefits of ESTB

Cost of Providing

While the expectation is that employer-sponsored benefit packages increase employee satisfaction and organizational output, the cost of said packages has risen so sharply that many organizations are now being forced to re-examine their individual benefit offerings due to unsustainability. The true institutional cost of the ESTB depends on how the researcher defines

the accounting. For organizations outside of higher education that do not provide educational degrees, ESTB programs constitute a hard accounting cost. This means that organizations must pay the full tuition cost to an external party, the university, who is providing the benefit. Since universities are providing the tuition benefit to their own employees, they have the option to classify ESTB expenses as soft costs to the institution. Soft costs means that providing the ESTB to employees, spouses, or dependents does not cost the university any extra money, as long as the students are not physically preventing an external tuition-paying student from attending. In these cases, the institution benefits from the employee retention and while the cost is reflected on the balance sheet, it is not considered a cash expenditure. How the researcher defines ESTB cost drastically changes the value of the benefit from an institutional standpoint. If a tuition assistance program can recruit and retain quality employees at a university for little to no additional cost, the decision to offer an ESTB program is highly beneficial to an organizational benefits package (Bergman, et al, 2018).

Retention and Turnover

Employee turnover is expensive in both financial terms and in the loss of employee knowledge to an organization, so all things being equal, retaining quality employees is a financial advantage to an organization. Ramsay-Smith (2004) identified in her research on industries in the United States that it typically requires $78,000 to replace an employee making an annual salary of $46,000. Bouchey and Glynn (2012) found similar results as the cost of losing employees and recruiting replacement employees averages approximately 20% of the total compensation. In a separate study, Bryant and Allen (2013) found the cost of replacing an employee to be much closer to 100% of annual salary. In studies of this sort, the cost differential typically consists of such factors as temporary labor, advertising, recruitment, selection, training,

orientation, salary differential, new hire bonuses, and productivity differential (Garman et al., 2005). One such way to control turnover is through an indirect compensation package, specifically an ESTB. Several studies have examined and shown mixed results on whether ESTB programs have a tangible impact on retention both during and beyond graduation.

Garcia and Joy (1998) followed cohorts of enlistees of the United States Navy who participated in the ESTB and determined that the probability of participants staying with the Navy for six additional years increased 13% over those cadets who did not take advantage of the benefit. On the contrary, Buddin and Kapur (2005) found that participation in employer-sponsored tuition reimbursement decreased the probability of staying with the Navy after graduation by 16.5%. Becker's (1964) seminal work on Standard Human Capital Theory suggests that it is not necessarily in an organization's best interests to sponsor a tuition benefit. According to Becker, offering general skills training to employees through an ESTB actually increases turnover. His research showed that certain skills are transferable across multiple employers and industries, thus increasing the likelihood that the employee will leave if not offered sufficient compensation for what they perceive as newly added human capital. Researchers in Becker's camp would argue that only firm-specific human capital that lends value to an organization should be sponsored by an ESTB, thus the teaching of general skills should be avoided altogether. Hall's (2005) research on this topic was not so rigid as it provided evidence that organizations could still capitalize on teaching general skills without increasing turnover. His study showed that the key was focusing on offering general skills that were beneficial or valued at their own organization. Similar viewpoints have found that the teaching of general skills to employees has not resulted in the mass exodus of quality employees that Becker originally hypothesized. Flaherty (2007) found that if the value of the general training increases

an employee's productivity more in the current firm than competing firms, then that employee is more likely to stay with their current employer than move to a competing firm. One reason is that movement between firms can be costly to an employee (both monetarily and psychologically). Because of these costs, Flaherty shows that an employee would rather stay at a firm if their skills within that firm are in fact valued, but oftentimes, employees determine that their skills are not adequately valued at their current company and choose to leave the organization, resulting in turnover (Flaherty, 2007). Additionally, Benson (2006) applied the theory of social change when offering general skills through ESTBs. He posited that the employee provides the employer with increased commitment and lower turnover in exchange for skill development and learning opportunities.

Job Satisfaction

Employee benefit packages have been associated with employee satisfaction, in the form of positive attitudes and behaviors that serve the employer's interests (Harris & Fink, 1994). This psychological contract is defined as a form of social exchange identified by the employee receiving both direct and indirect compensation in the form of benefits in exchange for affective commitment, retention, and high personal performance, which organizations hope to translate into higher overall organizational performance. "Affective commitment" is defined as the emotional attachment an employee has toward an organization (Meyer, Allen, & Sulsky, 1998). Multiple older studies have identified a positive correlation between employee satisfaction with commitment and productivity (Micelli & Lane, 1991; Dreher, Ash, & Bretz, 1988, Gerhart & Milkovich, 1992). Employees often feel a sense of obligation, moral attachment, or duty to the organization defined as normative commitment (Meyer, Allen, & Topolnytsky, 1998). Institutions with ESTBs were found to have higher morale, commitment, and performance than

those organizations without employee tuition reimbursement programs (Fernandez, 2012). Peter Capilli (2004) found that tuition assistance tends to attract better quality employees who stay on the job longer, based largely on the assumption that those who are attracted to an ESTB are previously disposed by an increased efficacy, or internal drive to succeed as opposed to those who do not seek out the benefit. In Capilli's example, quality employees individually self-select into firms with employer-sponsored tuition programs, thus raising the quality of the employee pool at large in a given company.

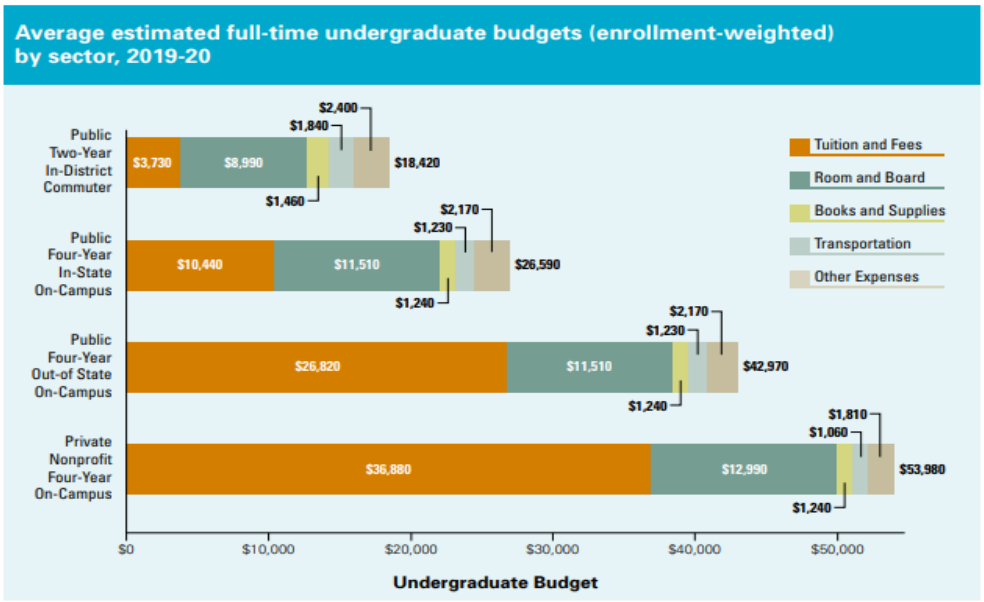
Employee Costs and Benefits of ESTB

College Education Costs

ESTB programs are an appealing way for employees to obtain a college degree for little or no personal financial outlay, especially given the staggering rise in college costs. The College Board (2019) performed an annual survey of colleges based on 2017 enrollment data and found that the average full-time cost of an undergraduate year at a private, non-profit university totaled just under $54,000, as illustrated in Figure 3.

Figure 3

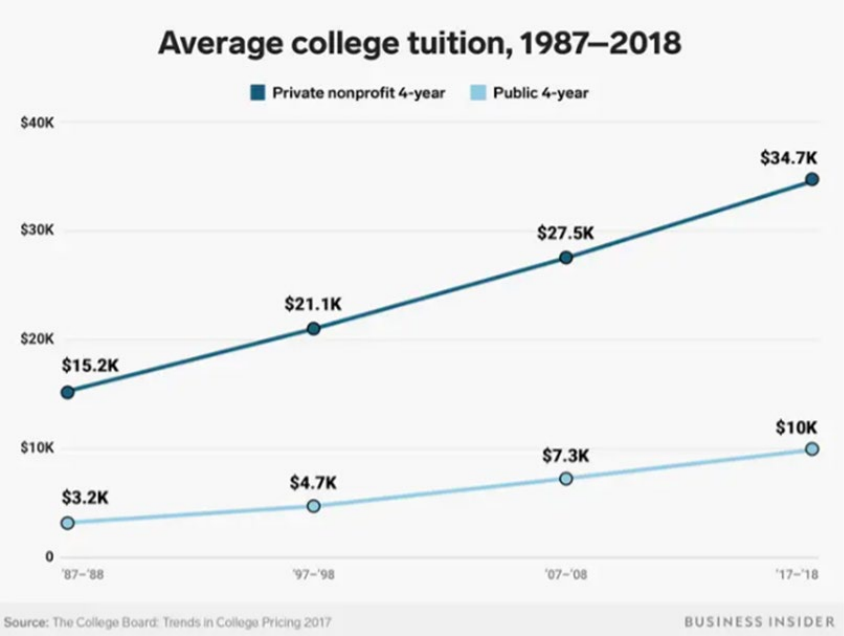
Average estimated full-time undergraduate budgets (enrollment-weighted) by sector. Source: College Board, Annual Survey of Colleges; NCES, IPEDS Fall 2017 Enrollment data.



The National Center for Education Statistics found the average 2018 tuition for a four-year private college in the United States to be over $43,000 (NCES, 2020). The College Board (2017) in their Trends for College Pricing Report showed similar findings and expanded to show that from the late 1980s to 2018, the cost of an undergraduate degree has risen by 213% at public schools and 129% at private schools, adjusting for inflation (Figure 4).

Figure 4

Average College Tuition 1987-2018. Source: The College Board Trends in College Pricing 2017



Because these figures put a college out of reach for many Americans due to their financial position, many opt to take out student loans. The Institute for College Access and Success found that over 7 million students took out federal loans in the 2016-17 academic year and by 2018, 25% of them were either delinquent or in default. Best and Keppo (2014) performed macroeconomic research that showed the tuition process and debt are highly correlated, suggesting that students respond to higher tuition by increased borrowing. Ornstein's (2019) research found that the average 2012 debt for those with a bachelor's degree is $40,000 and $57,000 for a master's degree. In 2015, medical school graduates had approximately $173,000 in college debt and more than 10% were over $300,000 in debt. The average law student debt was $126,000 (Ornstein 2019). Mental health is also a large concern for those with

increased debt. Weissman, Russel, and Mann (2020) measured the mental health in adults ages 18 to 64 and found that 50% reported two or more financial worries leading to what they described as serious psychological distress (SPD). Two of the most common responses were retirement savings and college tuition costs for children. Access to an employer-sponsored tuition benefit can eliminate a great deal of debt that one would otherwise take on to receive a college degree and ultimately contribute to the overall mental health of the employee.

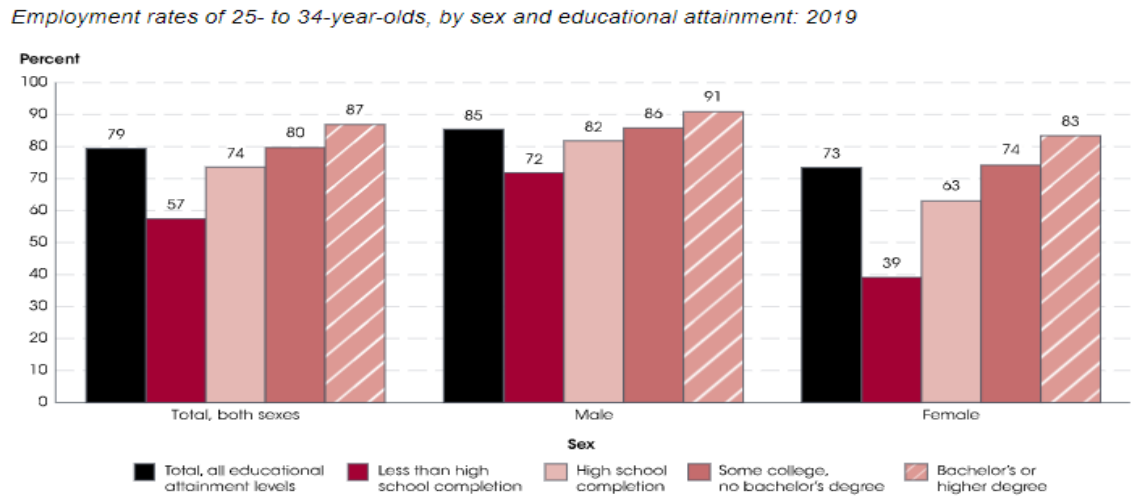
Personal Growth

Learning for the sake of becoming a better human citizen has been the root of higher education pedagogy for centuries, but there is an increasing demand that universities, specifically business schools, justify their large tuition prices in the form of accountability through outcomes and one of the most measurable outcomes remains employability (Coughlin, 2016). Employability in terms of ESTB programs centers around employees receiving benefits in the form of marketable skill development which can then be used to further their current employment or transferable to other employers (Benson, 2006; Grimmer & Oddy, 2007; Maurer, Pierce, & Shore, 2002). A research study titled “Is College Worth It?” by the Pew Research Group shows 47% of the general public view the main purpose of a college education is to teach work-related skills and knowledge while 39% say it is to help a student grow personally and intellectually (Parker et al, 2011). When parents were asked to identify the three most important reasons for their child to graduate college in this same study, 50% of respondents included "to get a good job" or "to make money.” Aronson’s more recent study found that a majority of college students viewed higher education enrollment as the single most important function to fulfill their dreams of financial prosperity and obtain work stability (2017). College presidents were divided on this issue and a deep dive shows that most 4-year institutional leaders emphasize

a focus on philosophy while most leaders of two-year and for-profit schools tend to emphasize employability (Pew, 2011). As the higher education sector has become steadily more competitive, there has been an increasing focus on graduate employment outcomes as a way of measuring institutional quality and a return on investment (Blackmore et al. 2016). For better or for worse, this focus on outcomes has amplified employability as a strategic directive (Smith et al. 2018). The National Center for Educational Statistics found that in 2019, the employment rate was highest for 25- to 34-year-olds with a bachelor's or higher degree (87%) while the employment rate for those with some college (80%) was higher than the rate for those who had only completed high school (74%) (NCES, 2020), as shown in the Figure 5.

Figure 5

Employment Rates of 25-34 year old by sex and educational attainment 2019. Source: U.S. Department of Education, National Center for Education Statistics. (2020)



Measuring the worth of a degree is not just a modern concept. Famous German playwright, orator, and history professor Friedrich Schiller once organized a great debate in

Germany at the University of Jena in 1810 to determine the true motivation of obtaining a college degree. While Schiller sided with the students motivated by internal factors such as virtue and knowledge whom he called the “philosophical minds,” the opposition consisted of students driven by external motivators such as salary, status, or benefits, whom he famously described as *Brotsgelehrte*, or "Bread Scholars” (Von Schiller, F, 1972). The term describes a student who seeks a degree simply to gain skills in order to earn a salary or a “crust.” For better or worse, this type of student is still common today and seemingly makes up a sizable portion of employees utilizing ESTB programs. From an organizational standpoint, the motivations for an employee pursuing a degree are important as they define the value of an ESTB. The next section will explore the intersectionality of the benefit from both an employer and employee perspective.

Theoretical Framework

This study is framed around the theoretical ideas of human capital, expectancy theory, and the psychological contract. When organizations offer employee development benefits such as an employee-sponsored tuition benefit, there is a psychological contract between the employer and employee that balances the employer's need for increased human capital with the expectations of employees that the capital gained is beneficial to the employee as well. Ideally, both the employee and the employer benefit from the personal and professional growth that comes from a tuition benefit program. If the knowledge, skills, and expertise gained by the employee only benefits the needs of an organization, there is an imbalanced benefit in favor of the employer. At the same time, if those gains benefit the employee so much that mobility is incentivized, the imbalance weighs more on the side of the employee. This study examines this balance of benefits to the employee and the employer within organizations that offer ESTB benefits, under the theoretical notion of a psychological contract between both parties.

Human Capital

Human capital consists of the knowledge, skills, and expertise that employees gain through educational, training, and experiential methods. General human capital is associated with the generalized skills and expertise that is transferable to multiple jobs, as opposed to firm-specific human capital (FSHC) that applies only to specific jobs or work positions (Mawdsley & Somaya, 2016). When employees are hired, they are expected to bring significant human capital to an organization, and this human capital is expected to increase as both general and specific knowledge, skills, and education are provided to those employees. A challenge to employers who offer benefits in the form of ESTB programs is understanding the balance between helping employees grow and become more successful, while maintaining enough of a relationship with those employees so that they are motivated to remain loyal to the organization that provided those learning opportunities. Employers seem to have a difficult task of balancing the improvement of their employees' general skill sets while simultaneously convincing them to put those skills to use at their existing organization rather than a competitor. While Becker (1964) theorized that firm-specific human capital is a critical limiting factor for mobile employees, more recent literature indicates that teaching employees general skills does not directly result in a loss of quality employees like Becker originally hypothesized (Flaherty, 2007). Much of the existing literature surrounding employer-sponsored tuition benefits attempts to explain organizational commitment while an employee is pursuing a degree. This study builds upon these theories and research in an attempt to look at the effect of increasing human capital through an ESTB program on employee turnover and long-term mobility.

Expectancy Theory

The concept of managing expectations is formally known as Expectancy Theory, which is a theory of motivation that seeks to identify the conditions necessary for employee motivation to occur. The practical significance of the theory lies in the lessons that can be derived from the design of incentive systems. Heery and Noon (2008) found that institutions who offered substantial incentive payments were better off when they made use of performance indicators which were fully under the employee's control. These performance indicators must also be transparent such that a change in behavior which leads to higher performance must also lead to higher rewards. These internal expectations are all part of a research genre focused on psychological contracts or "subjective beliefs" formed through continuous interaction between the employee and the employer.

An employee's pursuit of an advanced degree carries with it the expectation that the new degree will eventually help them improve their life through internal or external factors such as increased salary, job promotion, quality of life, expanded view of the world, increased responsibility, and increased stature amongst the community. Phillips's (1997) research found that the impetus of increasing one's education is to primarily prepare one's self for the next job. Shuck (2014) found that higher salaries were significantly associated with lower voluntary and involuntary turnover rates. However, with increased salary and promotion seemingly linked to employee satisfaction and retention, what happens if the expectation of a promotion or raise is not met for those employees who have put in the work of earning a degree through a tuition reimbursement program? An important aspect in examining the benefits and costs of an ESTB program is to understand the expectations surrounding the pursuit and achievement of degrees, in an effort to align employee and employer expectations.

Psychological Contracts

A number of research developments in the field of Human Resources and Talent Management show that effectively engaging employees keeps employees satisfied and productive throughout their careers. By meeting employee expectations through exchange relationships, organizations maintain continuity, reduce cost by limiting turnover, and keep intellectual capital from leaving the organization, as discussed in previous sections. The core idea behind functional exchange relationships, or psychological contracts, is that two parties share an understanding while striving to maintain a fair balance in the reciprocal contributions that each has to offer to one another based on that understanding (Blau, 1964). Failure to reciprocate the other party's actions erodes the quality of the exchange relationship (Cotterell, Eisenberger, and Speicher, 1992). Rogozinska-Pawelczyk (2014) reinforced this idea finding that the relations between superiors and employees should be based, above all, on mutual trust, respect, openness, and equality and maintaining this relationship is difficult as obligations, expectations, pressures, asymmetry of information, and risks are different between employees and supervisors and are ever-changing.

By applying this research directly to ESTBs, researchers discover a multitude of psychological contracts and expectations t play. Employees pursue degrees for a number of personal reasons, one being the improvement of their career trajectory. According to Abele and Spurk (2009), objective career success is identified by financial indicators such as salary growth or promotion, defined as an advance in hierarchical status. Conversely, subjective career success is defined as an employee's feeling of being satisfied or having a positive affective evaluation of one's place in an organization (Judge, 1995). In the case of an ESTB, if the employee achieves a degree and experiences no positive effects to their career trajectory, they

may feel an erosion in the quality of the relationship to that specific employer and thus seek employment elsewhere. The achievement of a degree alone does not guarantee that an employee's work will improve. If an organization sponsors the education of an employee, they may expect a certain level of tangible increase in production from that employee using skills learned in pursuit of the degree. Eskildsen and Dahlgaard (2000) provided support for this idea in their research on employee competence, finding that the output of every employee has to also match what the organizational expectations from someone holding that position or the relationship becomes eroded.

The key to satisfaction seems to be initial and ongoing transparency of expectations and then the ability of each party to meet said expectations. Dabos and Rousseau (2004) performed research to assess the joint perceptions of employees and their employers to examine mutuality and reciprocity in the employment relationship. In terms of psychological contracts, research indicated that both mutuality and reciprocity are positively related to archival indicators or research productivity and career advancement (Dabos and Rousseau, 2004). Rousseau (1995) studied psychological contracts and found there to be two main types: transactional and relational. Transactional psychological contracts tend to be motivated by short-term economic factors requiring low emotional investment (Rousseau 1995; DelCampo, 2010). This type of contract could represent tuition benefits for a dependent child where the employee trades employment for tuition reimbursement and benefits only during the years of actual study. Relational psychological contracts, on the other hand, tend to focus on open-ended, long-term personal relationships and high emotional involvement. These types of contracts may come into play once an employee earns a degree of their own under the benefit and the employee's external needs then evolve based on their accomplishment. Examples of relational contracts in the

workplace might include long-term career planning or training but most often comes in the form of making an employee feel valued.

Chapter 3

METHODOLOGY

Employee benefits are an ever-increasing aspect of employment today, and they are an important method for both recruiting and retaining quality employees. One common benefit offered in many organizations is a tuition assistance program, referred to as an Employee-Sponsored Tuition Benefit (ESTB). The benefit provides full or partial coverage of the tuition costs for employees, their spouses, and/or their dependents. However, there is little research or evidence that empirically measures the impact that ESTB programs have on employee retention and tenure. This study seeks to rectify this lack of knowledge by capturing quantitative data from all employees, both those who utilize the tuition benefit and those who do not, to examine whether this employee benefit has an impact on employee retention and tenure over a ten-year time period.

According to the constructionist viewpoint, discovery is the driver of meaning and knowledge, and research is then used to understand the meaning of a situation through the thoughts and beliefs of the actors involved in that particular situation. Understanding the motivations of the employees in this case study will assist universities in optimizing employer-sponsored tuition benefits, with the hope of attracting and retaining the best talent and ultimately running the organization in a cost-effective manner. If organizations, specifically higher education institutions, could present data that would show that rich employer tuition benefit offerings directly result in the attraction and retention of top employee talent, temptations of short-lived capital influxes due to tuition benefit cuts might be replaced by the long-term financial benefits of maintaining or expanding such programs. If data do not show that tuition

benefit offerings play a significant part in limiting turnover, organizations may be well served by focusing limited resources elsewhere.

Design of the Study

This quantitative, correlational study aims to identify and quantify the relationship between the retention and tenure of higher education employees and their utilization of the ESTB offered at a private mid-sized university in the southwest. For purposes of confidentiality, the participating institution will be referred to as Masked University (MU) throughout the study. The researcher used a non-experimental study based on longitudinal data collected from university employees eligible for the Masked University ESTB during a ten-year time period, determined as the ten years after each employee's date of hire. Tenure was measured as the number of years the employee was employed during the ten-year timeframe for the study, while retention was measured as whether the employee left during the ten-year timeframe. The following research questions structured the analysis of this study.

RQ1: Does utilization of employer-sponsored tuition benefits (ESTB) by higher education employees influence employee tenure over a ten-year period?

RQ2: Does utilization of employer-sponsored tuition (ESTB) benefits by higher education employees influence employee retention over a ten-year period?

RQ3: Does utilization of employer-sponsored tuition (ESTB) benefits have a relationship or dependency with employee class (faculty, exempt staff, non-exempt staff)?

Sample and Population of Interest

The researcher collected employee data from a cross-section of the university's full-time employee population hired at the institution within a two-year period from January 1, 2009 through December 31, 2010 and longitudinally tracked their employment and ESTB utilization

over a ten-year time period following their hire date. The data consisted of all full-time employees hired within the two-year time period, including both those who utilized the ESTB within their first ten years of employment and those who did not. For definition purposes, benefits-eligible was defined as working at least 75% full-time equivalent positions at Masked University. Because MU requires that employees be classified full-time to receive the ESTB, part-time employees were not included. Full-time benefits eligible employees for this study included exempt employees, non-exempt employees, and faculty whose detailed definitions can be found in chapter one.

According to MU Human Resources, an average of 450 out of 2,200 employees utilize the ESTB for themselves or their dependents any given semester, and they estimate that about 175 new employees are hired in a typical year. Thus, the two-year time period yielded a large sample of employees (N = 458), with 192 exempt staff (41.9%), 130 faculty (30.3%), and 127 non-exempt staff (27.7%). For analysis purposes, there was a large enough sub-sample of employees who utilized the ESTB (n = 128) within their first ten years of employment with MU, ensuring sufficient sample sizes for data analysis.

Procedures and Data Collection

Quantitative employment and tuition data were obtained through multiple university-approved PeopleSoft data queries in close conjunction with the TCU Human Resources Department, the TCU Financial Aid Department, and the TCU Department of Institutional Research. PeopleSoft is an electronic software product line owned by the parent company Oracle. PeopleSoft focuses on human resources and finance applications which has evolved to include tools and applications for general business processes, such as materials management and data tracking for specific industries including higher education. Masked University utilizes a

specific PeopleSoft component called Human Capital Management (HCM), allowing authorized employees to execute common human resources tasks, such as entering, editing, and managing personal and job data of employees. PeopleSoft HCM enables authorized users to analyze specific employee and organizational data through analytics software. Security is critical for PeopleSoft applications, including those used by Masked University Human Resources, as data entry and access is securely restricted or limited within the company using a Peoplesoft application called PeopleTools. PeopleTools also ensures that sensitive application data, such as employee salaries, performance reviews, or home addresses, are safely guarded against unauthorized access.

Collection of Employee and Student Data

The process of collecting the data was performed by the researcher with assistance from Masked University Information Technology (IT) employees holding Peoplesoft security permissions, allowing access to both employee and student data within the MU Departments of both Financial Aid and Human Resources. Furthermore, all data collection was performed under the supervision of the Director of Human Resources and the Director of Financial Aid. A letter of agreement was obtained from each director which, along with approval from the Institutional Review Board at MU before data were collected and analyzed. Employee data and student data were housed on two separate Peoplesoft platforms, therefore data was collected from each Peoplesoft platform, cross-referenced using VLookup, and combined into one master spreadsheet. As noted earlier, data were only gathered for full-time employees hired during the two-year time frame of January 1, 2009 through December 31, 2010, including data for the ten years following each employee's date of hire.

The researcher obtained employee data through an MU Human Resource Peoplesoft query that included employee name, employee ID, date of hire, date of termination, employee classification, sex, and ethnicity. Student data from 2015 and beyond were collected through a separate MU Human Resource Peoplesoft query, including student name, student ID, type of degree being earned, financial aid year, semester, student description (employee, spouse, or dependent), tuition dollar award, employee ID, and employee name. Employee name and student ID linked the student receiving the benefit to the respective eligible employee. Once the student data set and the employee data set were both finalized, the researcher masked all specific employee information, including employee name, employee ID, student name, and student ID with a unique participant ID for confidentiality purposes. All identifying information was kept completely separate from the analysis and the final research report to protect employee and student information above all else.

Combined Data

The final data set was structured where each row represented an employee, which served as the unit of measure for analysis. Although the student and employee data were obtained through different measures, all student data was be added to the appropriate employee data rows. For each employee, tenure for the ten-year time period was calculated, along with the total ESTB award amount across all semesters within the ten-year period. Each employee was also coded as having utilized the ESTB within the ten-year timeframe or not having utilized it. Finally, a dummy variable for retention was created based on whether the person ceased or retained employment during the ten-year time period from date of hire. A summary of all variables of interest are summarized in Table 1.

Table 1

Variables of interest for each participant.

Variable	Type of Variable	Level of Measurement
Date of Hire	Continuous	Date that begins the ten-year timeframe for the study
Date of Termination	Continuous	Date that determines the tenure of the employee during their ten-year timeframe.
Tenure	Continuous	Length of tenure calculated from date of hire and date of termination
Retention	Categorical, Nominal	Retained; Not Retained during ten-year timeframe
Employee Class	Categorical, Nominal	Faculty, Exempt Staff, Non-Exempt Staff
Sex	Categorical, Nominal	Female, Male
Ethnicity	Categorical, Nominal	American Indian, Asian, Black, Hispanic, multi, White, and not Specified
ESTB Award Amount	Continuous	U.S. Dollars ($0 indicates ESTB not utilized)
ESTB Utilization	Categorical, Nominal	Utilized, Did Not Utilize
ESTB Beneficiary	Categorical, Nominal	Employee, Spouse, and Dependent

One logistical challenge was accounting for employees who utilized the ESTB through the Tuition Exchange program since dependent exports do not appear as a direct cost on the exporting school's financial records. MU is a part of a consortium of over 720 similar institutions that allows member institutions to trade dependents of university employees who

wish to utilize the undergraduate education benefit at any of the member schools (Tuition exchange, 2021). Because tuition is granted by Financial Aid departments of the importing school within the Tuition Exchange program, neither MU's Human Resources not Financial Aid Departments track the ESTB award amount for export students. The researcher felt that because the tuition exchange benefit presumably held the same (or greater) retention and tenure power as the MU ESTB, to exclude employees who utilized the Tuition Exchange dependent benefit from this study would not be representative of the true data set. In order to include these employees, the researcher worked with the Tuition Exchange to determine the annual tuition cap option given to all member schools and applied that amount as the tuition award for the appropriate year.

Data Analysis

The first research question examined employee tenure and ESTB utilization and was analyzed using two different statistical methods. An independent *t* test compared mean tenure for those who utilized the ESTB and those who did not. An independent t test uses the t-statistic to establish if two means obtained from independent samples differ significantly (Ireland, 2020). Hierarchical regression analysis was used to look at the relationship between total ESTB award amount and employee tenure, while controlling for employee sex and ethnicity. Hierarchical models are statistical models that can be used to analyze nested sources of variability in hierarchical data, taking account of the variability associated with each level of the hierarchy. These models have also been referred to as multilevel models, mixed models, random coefficient models, and covariance component models (Breslow and Clayton, 1993; Longford, 1993; Snijders and Bosker, 1999; Hox, 2002; Goldstein, 2012). In hierarchical regression, blocks of variables are added into the model in a specific order, with the control variables as the first

block, and subsequent blocks including the independent. The purpose of this is to statistically control for the variables in the first block, while the variables in the next block are entered to determine if the model that includes the second block of variables significantly improves upon the model with the first block of control variables.

The second research question, which examined employee retention (a dichotomous variable) and ESTB utilization, was also analyzed using two different statistical methods. A X^2 test for independence was used to test for a relationship or dependency between employee retention and ESTB utilization. Hierarchical logistic regression analysis was used to look at relationship between total ESTB award amount and employee retention, while controlling for employee sex and ethnicity. The distinction between the hierarchical regression in research questions one and two is that the first has a continuous dependent variable (tenure) and the second has a binary dependent variable (retention). In circumstances where the dependent variable is dichotomous, logistic regression is needed, while ordinary regression is needed where the dependent variable is continuous (Shaughnessy, Zechmeister, & Zechmeister, 2006). Finally, the third research question, which examined the relationship between employee classification (faculty, exempt staff, and non-exempt staff) and employee retention, was analyzed using a X^2 test for independence. A summary of all variables and their respective roles in each research question can be found in Table 2.

Table 2

Summary of variables for each research question.

Variable	Purpose
Tenure	Dependent Variable, RQ1
Retention	Dependent Variable, RQ2 and RQ3
ESTB Award Amount	Independent Variable, RQ1 and RQ2
ESTB Utilization	Independent Variable, RQ1, RQ2 and RQ3
Employee Class	Independent Variable, RQ3
Sex	Control Demographic Variable, RQ1 and RQ2
Ethnicity	Control Demographic Variable, RQ1 and RQ2

For parametric statistical tests to be valid, all assumptions required for the test must be met first as any violation of assumptions may undermine meaningful research (Garson, 2012). The assumptions associated with an independent *t*-test require that there are no significant outliers within each group, approximate normality of the dependent variable for each level of the independent variable, and a test for equality of variances. Histograms for tenure were created for each of the two groups (utilized ESTB and did not utilize) to look for approximate normality and lack of outliers. Levene's test for equality of variances was performed to determine if the variances were significantly different, indicating whether a *t* test for unequal variances was more appropriate. A non-parametric Mann Whitney *U* test (also known as the Wilcoxon-rank sum test) was also used as an alternative method of analysis for the *t* test. The assumptions associated with a X^2 test for independence only requires that each combination for the two categorical groups

have expected values of at least 5, an assumption tested through counts for each sub-group of the two categorical variables.

The required assumptions for hierarchical regression analysis include having a continuous dependent variable, independent observations, linearity between the dependent variable and continuous independent variables, no significant outliers or leverage points, no violations of homoscedasticity, no multicollinearity, and approximate normality of the error term (Osborne & Waters, 2002). Tenure was a continuous variable, meeting the first assumption, and all observations were employees independent of one another, meeting the second assumption. A scatter plot between ESTB award amount and employee tenure was examined for linearity. The scatterplot is a well-established means of visualizing spatial distribution of data plots in two-dimensions to help judge functional form (Sarikaya & Gleicher, 2018). A histogram of tenure was also examined to determine if there were any significant outliers or anomalies. Anomaly detection is the process of finding instances in a data set which are different from the majority of the data and histograms are used to compute an anomaly score for each data instance (Goldstein & Dengel, 2012). Multicollinearity was checked through variance inflation factors (VIFs), which all needed to be below 5 to not have issues with multicollinearity (Haitovsky, 1969). The term multicollinearity refers to a situation in which there is an exact (or nearly exact) linear relation among two or more of the input variables, which could become a problem if predictor variables are themselves highly correlated (Paul, 2006; Hawkins, 1983). Finally, residual plots were examined to determine if there were any violations of homoscedasticity and to see if the error term was approximately normally distributed. Residual plots are commonly used to look for obvious defects in the model. A curved plot indicates nonlinearity, while a fan-shaped or double-bow pattern indicates non-constant variance (see Weisberg,1985; Montgomery & Peck, 1992).

The required assumptions for binomial logistic hierarchical regression analysis include a dichotomous dependent variable, independent observations, a sufficiently large sample size, no multicollinearity, no significant outliers or leverage points, and a linear relationship between the continuous independent variable of the logit of the independent variable. Retention was a dichotomous variable (retained employment for the full ten years vs did not retain), meeting the first assumption, and all observations were employees independent of one another, meeting the second assumption. One common assumption for logistic regression sample size is that there are at least 10 observations for both levels of the dependent variable for each independent variable to avoid bias and variability, unreliable confidence interval coverage, and problems with model convergence (Vittinghoff & McCulloch, 2007). This means that for each independent and control variable in the model, the sample would need to include at least 10 employees who stayed (retained) working for the institution during the timeframe and at least 10 employees who left (not retained). Considering that the two control variables (gender and ethnicity) had multiple levels, the sample would have to include at least 50 employees who were retained and 50 who were not retained. Multicollinearity was checked through variance inflation factors (VIFs), which all needed to be below 5 to not have issues with multicollinearity. Casewise diagnostics within SPSS were checked to determine if any of the standardized residuals fell beyond two standard deviations, indicating an issue with potential outliers, and observations were checked to look for any issues with potential leverage points. Finally, the Box-Tidwell procedure was used to verify whether there was linearity between total tuition amount and the logit of retention

Summary

In summary, the researcher performed a quantitative research analysis to collect and analyze quantitative data in the form of employment retention data to determine if utilization of an employer-sponsored tuition benefits influences employee retention. The data came from employees hired within a two-year timeframe and followed each employee for ten years following their date of hire. The research questions were designed to address the two dependent variables of retention and tenure based on the independent variables of ESTB program utilization, total ESTB tuition award amount, and employee classification. Independent *t* tests, X^2 independence tests, and hierarchical regression analyses were used to address these relationships for the three research questions. All data was imported and analyzed using the Statistical Package for Social Science (SPSS), Version 26.

In accordance with applicable federal law governing the use of human subjects in research, the TCU Institutional Review Board ("IRB") reviewed the proposed project entitled "Measuring the Influence of Employer-Sponsored Tuition Benefits on Employee Retention and Tenure" and determined that the study is considered minimal risk, qualifying for an exemption from further IRB review under category 2 as of 9/27/21. Specifically, 45 CFR 46.104(4)(ii) identifies studies that are exempt from further IRB review, including research where all data/specimens exist at time of IRB submission, a retrospective collection with no prospective or longitudinal collection intended. Information is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained directly or through identifiers linked to the subjects, the investigator does not contact the subjects, and the investigator will not re-identify subjects. The IRB determined that the proposed project falls under 45 CFR 46.104(2) (i). For these reasons, the IRB determined that the proposed study is

exempt from further IRB review. All indoor interaction with human subjects in research studies adhered to the current TCU COVID guidelines in place at the time of the interaction.

Chapter 4

RESULTS

The purpose of this study was to examine the relationship between utilization of an ESTB at a private mid-sized university with employee tenure and retention, exploring whether utilizing this benefit influenced employee tenure and retention over a ten-year time frame. The sample consisted of 458 full-time employees who were hired during a two-year timeframe from January 1, 2009 through December 31, 2010, and each was tracked for the first ten years of their employment or until they ceased employment at the university. Data collected from these employees included date of hire, date of termination (if applicable), employee class, total amount of ESTB tuition awarded, type of ESTB beneficiary, employee sex, and employee ethnicity. In order to answer the three research questions that examined employee ESTB utilization and its relationship with employee tenure, retention, and work classification, the researcher compiled descriptive statistics and appropriate data analysis that are all summarized in this chapter.

Employee Demographics

Employees were organized into two main groups, defined as those who utilized the ESTB program (ESTB employees) during the ten-year time frame and those who did not (non-ESTB employees). The demographic variables for employee sex and ethnicity were summarized for all employees in the sample, regardless of ESTB utilization group. The sample was almost evenly balanced regarding employee sex, with 244 female employees (53.3%) and 214 male employees (46.7%). Most of the 458 employees were White (76%), followed by Hispanic (10.5%), Black

(9.4%), Asian (3.5%), Multiracial (0.4%), and Pacific Islander (0.2%). The demographic summary of all employees in the sample is summarized in Table 3.

Table 3

Summary of demographics. N = 458.

Employee Ethnicity	**n**	**%**
Asian	16	3.5
Black	43	9.4
Hispanic	48	10.5
Multiracial	2	0.4
Pacific Islander	1	0.2
White	348	76
Employee Sex		
Female	244	53.3
Male	214	46.7

Most employees in the sample did not utilize the ESTB program, with 330 non-ESTB employees (72.1%) and 128 ESTB employees (27.9%). Ideally, the ESTB employees' demographics would be similar in makeup to the non-ESTB employees so that differences in tenure and retention would be independent of ethnicity and sex. This would mean that the data would show roughly the same utilization rates for each ethnicity and sex category, falling close to the 27.9% rate for the sample as a whole. Regarding employee ethnicity, ESTB utilization rate was similar for employees within the ethnicity groups of Hispanic (31.3%), Black (32.6%), and

White employees (27.6%), but lower for Asian employees (18.8%), Multiracial (0%) and Pacific-Islander employees (0%). It should be noted, however, that there were only 2 employees who identified as multiracial and 1 Pacific Islander, so the utilization rates could not be similar to the sample as a whole. Regarding employee sex, ESTB utilization rate was about the same for females (28.7%) as males (27.1%). In order to control for differences in utilization rates across demographic categories, both of these demographic variables later served as control variables in hierarchical regression analysis for research questions one and two, allowing the researcher to examine the relationship between ESTB utilization and employee tenure and retention, while holding constant these differences due to sex and ethnicity. A summary of ESTB utilization rates within each demographic variable is summarized in Table 4.

Table 4

ESTB utilization rates within each demographic variable.

	ESTB Employees		Non-ESTB Employees	
Employee Ethnicity	**n**	**%**	**n**	**%**
Asian	3	18.8	13	81.3
Black	14	32.6	29	67.4
Hispanic	15	31.3	33	68.8
Multiracial	0	0.0	2	100.0
Pacific Islander	0	0.0	1	100.0
White	96	27.9	252	72.1
Employee Sex				
Female	70	28.7	174	71.3
Male	58	27.1	156	72.9
Employee Totals	128	27.9	330	72.1

ESTB Utilization

The ESTB program was used for undergraduate and graduate degrees at MU, along with undergraduate degrees at other four-year universities utilizing the tuition exchange program. Employees, their dependents, and their spouses could utilize the ESTB, with specific eligibility guidelines depending on the user. Employee dependents were limited to one undergraduate degree only earned at either MU or through the Tuition Exchange but are not limited to or restricted by any cap per semester. Employee dependent spouses could earn one degree with no restrictions on credits per semester but it could only be obtained at MU. Employees could earn multiple degrees, graduate or undergraduate at MU, but MU restricts ESTB utilization to 6

credits per semester. Of the 128 employees who utilized ESTB in some fashion, 83 utilized the ESTB for undergraduate degrees at MU or via the tuition exchange program (64.9%), 42 utilized it for graduate programs (32.8%), and 3 used it for both undergraduate and graduate programs (2.3%). Dependents comprised most of the beneficiaries, with 61 dependents utilizing the ESTB program (47.6%), 44 employees utilizing the ESTB program for themselves (34.4%), 16 spouses utilizing the benefit (12.5%), and 7 instances where the ESTB beneficiary was more than one person (5.5%). A summary of the ESTB beneficiaries and type of degrees can be found in Table 5.

Table 5

Summary of ESTB beneficiaries and degree programs. N = 128.

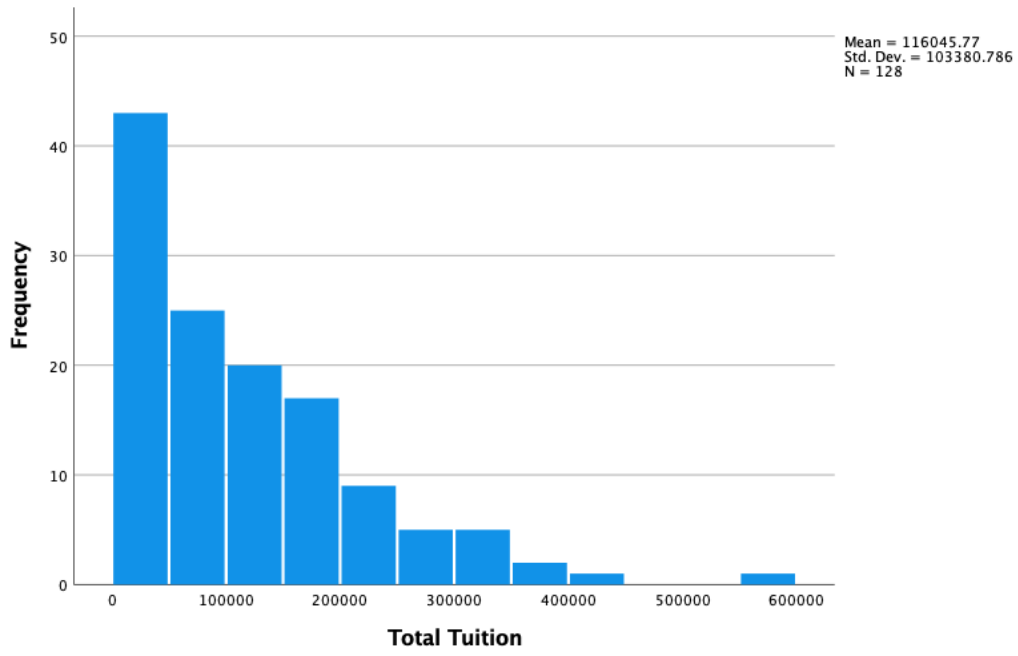
Degree Program	**n**	**%**
Undergraduate	83	64.9
Graduate	42	32.8
Multiple	3	2.3
Beneficiary		
Dependent	61	47.6
Employee	44	34.4
Spouse	16	12.5
Multiple	7	5.5

Every semester that the ESTB program was utilized by a beneficiary, the tuition costs for that semester's enrollment was calculated and stored as a benefit award amount with the associated ESTB employee. In this study, the variable for total ESTB tuition award amount represented the total tuition money awarded to an employee during the ten-year time frame across all semesters, beneficiaries, and degree programs. ESTB total award amounts had a mean

and median of $116,046 and $91,328, respectively, ranging from a minimum of $2,900 to a maximum of $555,605, with a standard deviation of $103,381 and skew of 1.313. While tuition costs per credit at MU were similar for graduates and undergraduates, those who utilized the ESTB for an undergraduate degree would receive roughly three to four times as much in total tuition because the number of degree hours required is greater. A typical undergraduate degree at MU requires students complete 124 credit hours while a typical graduate degrees at the Master's level requires students complete 36 hours. Those employee utilizing the ESTB for the dependent undergraduate benefit have no credit limit per semester while employees utilizing the benefit for themselves are limited to 6 credits per semester. There were a small proportion of employees who utilized the benefit for multiple dependents and multiple degree programs. These factors contribute to the overall shape of total tuition amounts, which is illustrated in Figure 6.

Figure 6

Histogram of total tuition ESTB award amounts. N=128.



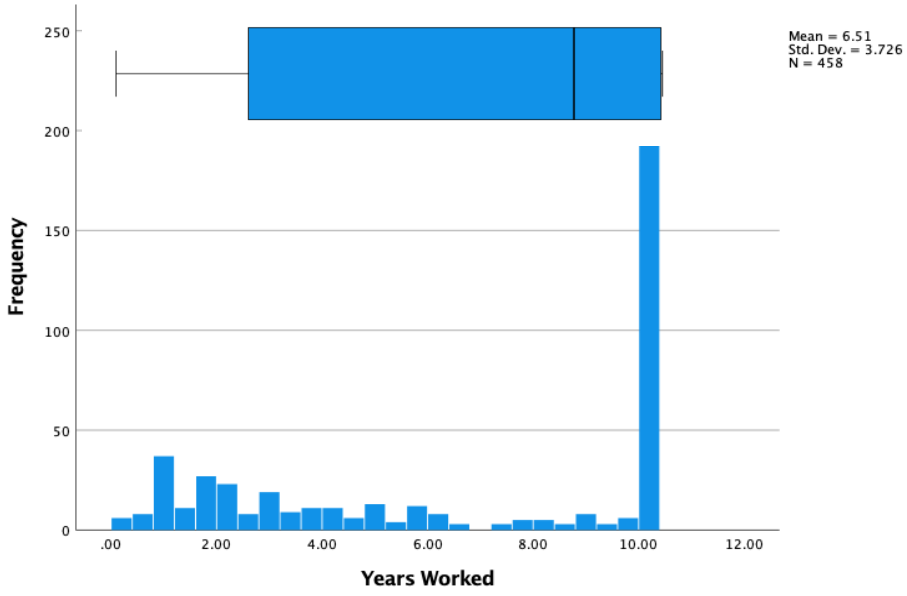
Research Question One

RQ1: Does utilization of employer-sponsored tuition benefits (ESTB) by higher education employees influence employee tenure over a ten-year period?

Employee tenure was measured as the number of years employed during the first 10 years following hire. Across all 458 employees in the sample, average tenure was 6.51 years, ranging from a minimum of 0.12 years to a maximum of 10 years, with a standard deviation of 3.73 years and skew of -0.348. Because tenure was truncated at a maximum of 10 years based on the study's design, there was a high concentration of observations close to a tenure of ten years, as illustrated in Figure 7.

Figure 7

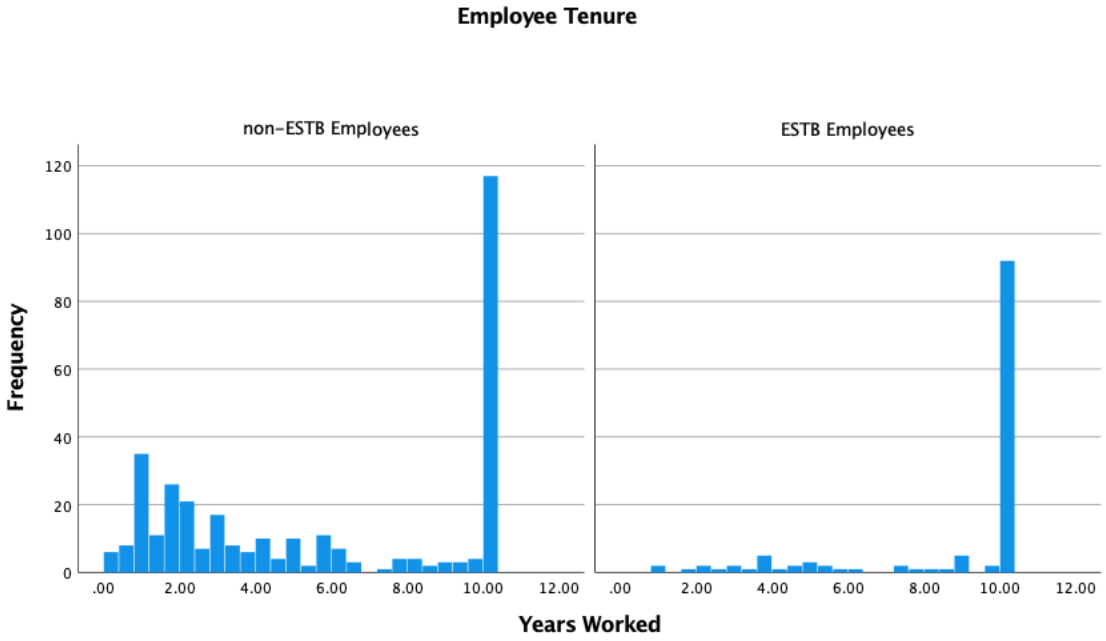
Histogram and boxplot for tenure over first 10 years of employment. N = 458.



Comparing the mean tenure between the ESTB employees and non-ESTB employees, the tenure length for those who utilized the benefit was longer (M = 8.71, SD = 2.49) than those who did not utilize the benefit (M = 5.65, SD = 3.79). The distribution for ESTB employees' tenure was highly negative skewed (Skew = -1.743), with a higher concentration of ESTB employees close to a tenure of 10 years in comparison to the non-ESTB employees. While the non-ESTB employees' tenure also appeared negatively skewed, it was far less extreme as the ESTB employees (Skew = 0.047). If the high frequency near a tenure of 10 years is not regarded, one can see that there is a concentration of low tenure for the non-ESTB employees and a concentration of higher tenure for the ESTB employees across the ten years. Both distributions for employee tenure are illustrated in Figure 8.

Figure 8

Histograms for tenure over first 10 years of employment, organized by ESTB utilization.



An independent *t* test using unequal variances indicated that the difference in mean tenure (3.06 years) between the ESTB employees and non-ESTB employees was statistically significant ($t(348) = 10.098$, $p < .001$), with a large effect size (Cohen's $d = .881$). Due to the non-normality of both groups, the non-parametric Mann-Whitney *U* test for independent samples was also used to test for difference in mean tenure between the ESTB employees and non-ESTB employees. This test also indicated that there was a significant difference between the two groups ($U = 30380$, $p < .001$). A summary of these comparison tests can be found in Table 6.

Table 6

Comparison of mean tenure between employees who utilized the ESTB and those who did not.

	M	***SD***	**n**	***M* Diff**	***t*(348)**	***U***	***p***	**Cohen's *d***
Utilized ESTB	8.71	2.49	128					
Did Not Utilize ESTB	5.65	3.79	330	3.06	10.1	30380	< .001***	0.881

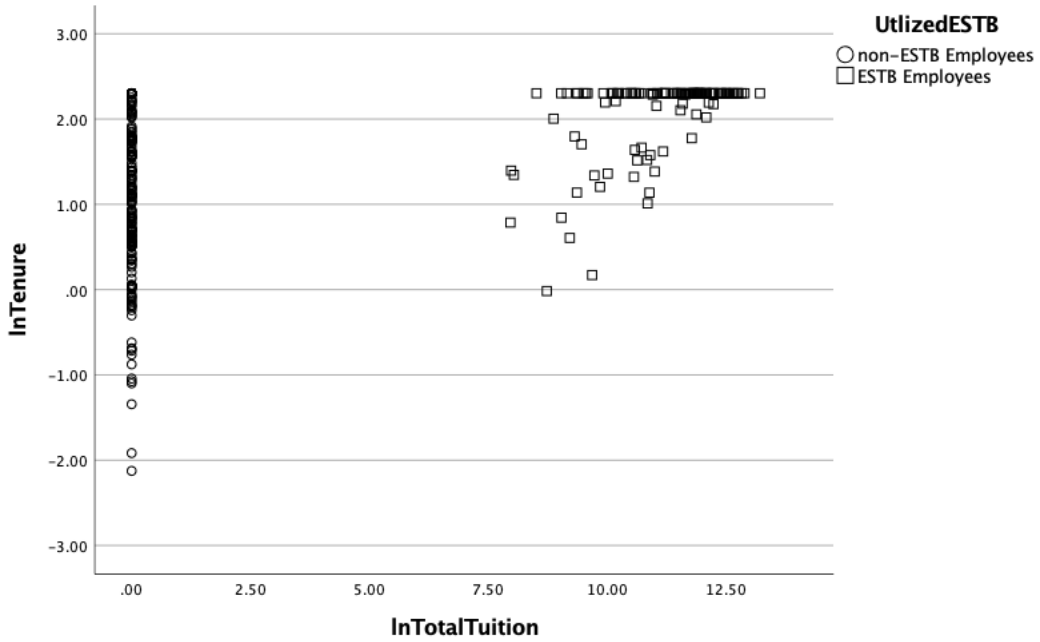
*Note: N = 458. *p < .05, **p < .01, ***p < .001.*

Hierarchical regression analysis was used to measure the relationship between ESTB tuition amount on employee tenure within the 10-year timeframe, while controlling for the demographic variables of sex and ethnicity. Due to the skewed distributions for the continuous variables for tenure and total tuition amount, both variables were transformed using a natural log for the regression analysis. Logarithmic transformations are commonly used in regression analysis to remedy violations of homoskedasticity, normality of residuals, and linearity. While the independent and independent variables need not be normally distributed, having skewed data

with outliers can often lead to issues with these assumption violations. Logarithmic transformations are a common way to reduce these issues (Tamhane & Dunlop, 2000). For ethnicity, the three groups for Asian, Multiracial, and Pacific Islanders were combined into one group due to the small frequencies in each of the three separate groups. The assumptions associated with hierarchical regression analysis were checked to verify that the analysis was valid. As stated in Chapter 3, the required assumptions for hierarchical regression analysis include having a continuous dependent variable, independent observations, linearity between the dependent variable and continuous independent variables, no significant outliers or leverage points, no violations of homoscedasticity, no multicollinearity, and approximate normality of the error term (Osborne & Waters, 2002). The first two assumptions were met due to the continuous measurement of tenure and independence of behavior among employees in the sample. A scatter plot examining the relationship between log-transformed ESTB total tuition amount and log-transformed employee tenure indicated that linearity was approximately met, as shown in Figure 9. The figure illustrates the wide range in tenure for the non-ESTB employees (those values on the left side of the scatter plot), with a more concentrated linear pattern for tenure for the ESTB employees (those values on the right side of the scatter plot).

Figure 9

Scatterplot between ESTB tuition amount and employee tenure 10 years after hire. The observations on the left for $0 tuition indicate those who did not utilize the ESTB. N = 458.



A residual plot of studentized residuals against the predicted values, illustrated in Figure 10, showed approximately random scatter about a mean of 0 without any outliers or leverage points of concern. While there did appear to be a fan pattern indicating possible heteroskedasticity, it was not prominent and most likely due to tenure being truncated at 10 years. A histogram of the residuals, illustrated in Figure 11 similarly reflected this issue with tenure truncation at 10 years, although the rest of the distribution was approximately normal. Using the natural log transformation for both tenure and tuition amount helped these possible concerns from being assumption violations. Lastly, no violations of multicollinearity were found, as all variance inflation factors (VIF) were lower than 5, the highest of which was 1.02.

Figure 10

Residual scatter plot of studentized residuals vs. predicted values.

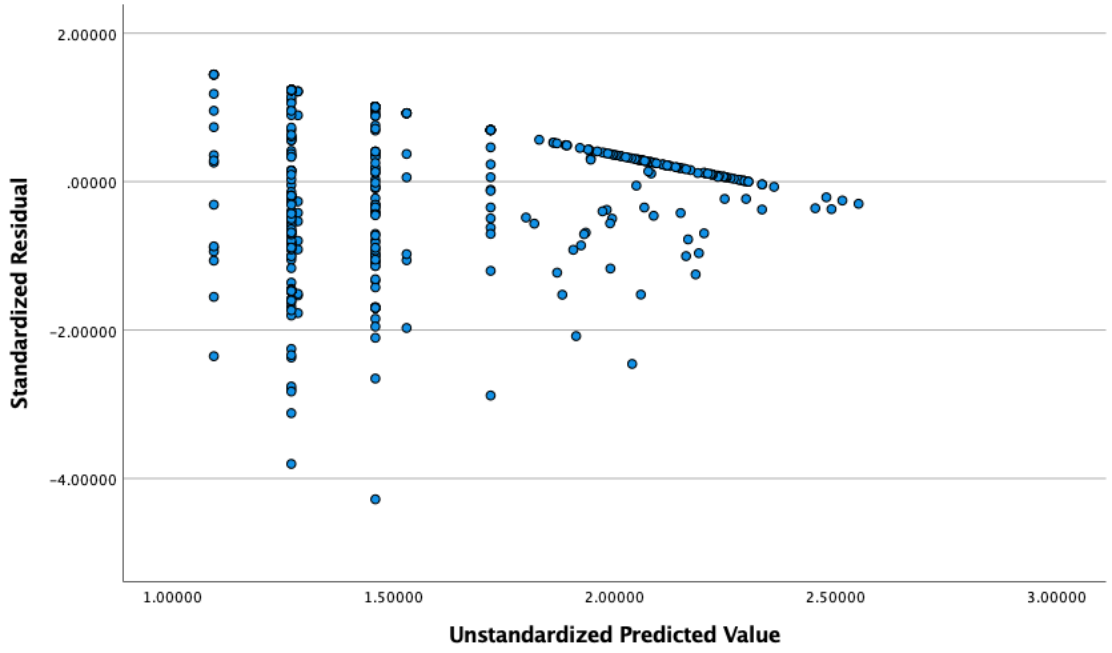
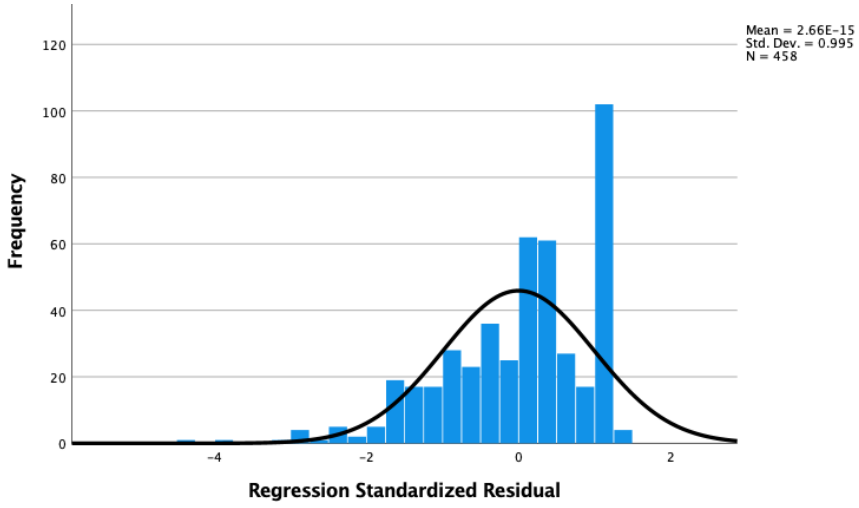


Figure 11

Residual histogram with normal distribution overlay.



The first model that included only the control variables was statistically significant (F (4, 453) = 2.557, p = .038), with only 2.2% of the variability in tenure explained by the control variables for employee sex and ethnicity. In this control model, neither sex was statistically significant (t(456) = -1.952, p = 0.052) nor was ethnicity (F(3,453) = 2.007, p = 0.112). This contradiction between a significant overall model but insignificant independent variables is most likely due to the two variables being categorical with multiple levels, collectively contributing to overall significance even when each multi-level categorical variable tested as a single variable was not significant (Hardy, 1993). Furthermore, the control model only served as a comparison to the second model including the variable of interest, so its lack of significance is not the focus.

The second model that included the control variables and the added log-transformed independent variable for total tuition award amount was statistically significant (F (5, 452) = 16.621, p < .001), with 15.5% of the variability in tenure explained by the variables for employee sex, ethnicity, and tuition award amount. The variable for total tuition award amount was statistically significant (t(452) = 8.444, p < .001), as was the variable for sex(t(452) = -2.292, p = 0.022).

Ethnicity was not significant (F(3,452) = 2.127, p = .096) in this second model. With hierarchical regression analysis, the comparison between the control model and the second model that adds the independent variable is of most interest, as it looks at the impact of the independent variable when the control variables are held constant in both models. There was a significant change from the first model to the second model when tuition award amount was added (F (1, 452) = 71.293, p < .001), increasing the proportion of variability in tenure explained by 13.3%. A summary of these findings can be found in Table 7.

Table 7

Hierarchical regression results for tenure.

	b	***SE***	***β***	***p***	R^2	ΔR^2
Model 1					.022*	.022*
Constant (Intercept)	1.656	.068	---	---		
Sex - Female	-.166	.085	-.091	.052		
Ethnicity – Black	-.153	.146	-.049			
Ethnicity – Hispanic	.285	.139	.096	.112		
Ethnicity – Multi	-.066	.213	.015			
Model 2					.155***	.133***
Constant (Intercept)	1.460	.067	---	---		
Sex - Female	-.181	.079	-.100	.016*		
Ethnicity – Black	-.179	.136	-.057			
Ethnicity – Hispanic	.258	.130	.087	.096		
Ethnicity – Multi	.024	.199	.005			
LN(Total Tuition)	.066	.008	.366	< .001***		

Baseline categories for dummy variables were Sex – Male; Ethnicity - White
*Note. *p < .05. **p < .01. ***p < .001*

The slope for tuition amount indicates that for each 100% increase in the total tuition amount awarded, employee tenure is expected to increase by 6.6% on average (b = .066), holding constant sex and ethnicity. To put this in perspective, consider a comparison between an employee utilizing the ESTB for 36 tuition hours versus 124 hours, which are the approximate totals needed to fulfill a graduate degree and undergraduate degree, respectively. If an employee

utilizes 124 hours instead of 36 hours, they are awarded 244% more in total tuition amount thus their tenure is expected to increase by 16.1%. Table 8 presents similar examples, including comparing 124 hours to 248 hours, the approximate totals for one versus two undergraduate degrees, and 124 hours to 160 hours, the approximate totals for one undergraduate versus a combined undergraduate and graduate degree.

Table 8

An example of ESTB utilization starting at eligibility and lasting for four years.

Comparison	Total Tuition Increase	Expected Tenure Increase
36 vs. 124 hours	244%	16.1%
124 vs. 248 hours	100%	6.6%
124 vs 160 hours	29%	1.914%

Note. Based on a log-log model regressing ln(tenure) on ln(tuition).

In summary, results from research question one indicate that employees who utilize the ESTB are much more likely to have longer tenure than those who do not utilize the benefit..Upon determining that the overall average tenure for the 458 employees within the sample was 6.51 years, research showed that employees who utilized the ESTB program for any dollar amount during the ten-year measurement period were employed for an average of 8.71 years while employees who never utilized the ESTB program were employed for an average of only 5.65 years. Multiple statistical tests indicated that a difference in mean tenure of 3.06 years was significant when comparing the group of ESTB users to ESTB non-users during the 10-year measurement period. After controlling for the variables of sex and ethnicity, an independent

variable of tuition award amount was proven to be significant, increasing the proportion of overall variability in tenure by 13.3%. The slope for tuition amount indicates that for each 100% increase in the total tuition amount awarded, employee tenure is expected to increase by 6.6% on average (b = .066), holding the variables of sex and ethnicity constant. Applying this 6.6% slope to the total undergraduate tuition cost of $120,000, calculated using the average cost of $40,000 per year during the measurement period, this research study shows telling results: Employees utilizing the dependent tuition benefit for a standard 4-year undergraduate degree for one dependent child had an average tenure of 6.98 years, 16 months longer than a non-ESTB employee. Employees utilizing the ESTB for undergraduate degrees for two children could then be projected to show an average tenure of 8.31 years, or 2.66 years longer than employees with on utilization.

Research Question Two

RQ2: Does utilization of employer-sponsored tuition (ESTB) benefits by higher education employees influence employee retention over a ten-year period?

Employee retention was measured as whether an employee remained in employment at the university for the full ten-year timeframe following their date of hire. The retention rate for all employees in the sample was 45.6%, with a 71.9% retention rate for ESTB employees and 35.5% for non-ESTB employees. A chi-square test found that this difference in retention rates of 36.4% between the two utilization groups was significant, indicating that there was a dependency or relationship between retention and ESTB utilization ($X^2(1) = 49.310$, $p < .001$) with medium effect size ($\phi = .328$, $V = .328$). Assumptions for this chi-square test were met, as all combinations of the two categorical variables had expected values above 5. Table 9 summarizes

the rates of retention, organized by USTB utilization, and test results for relationship between the two variables.

Table 9

Summary of employee retention, organized by ESTB utilization.

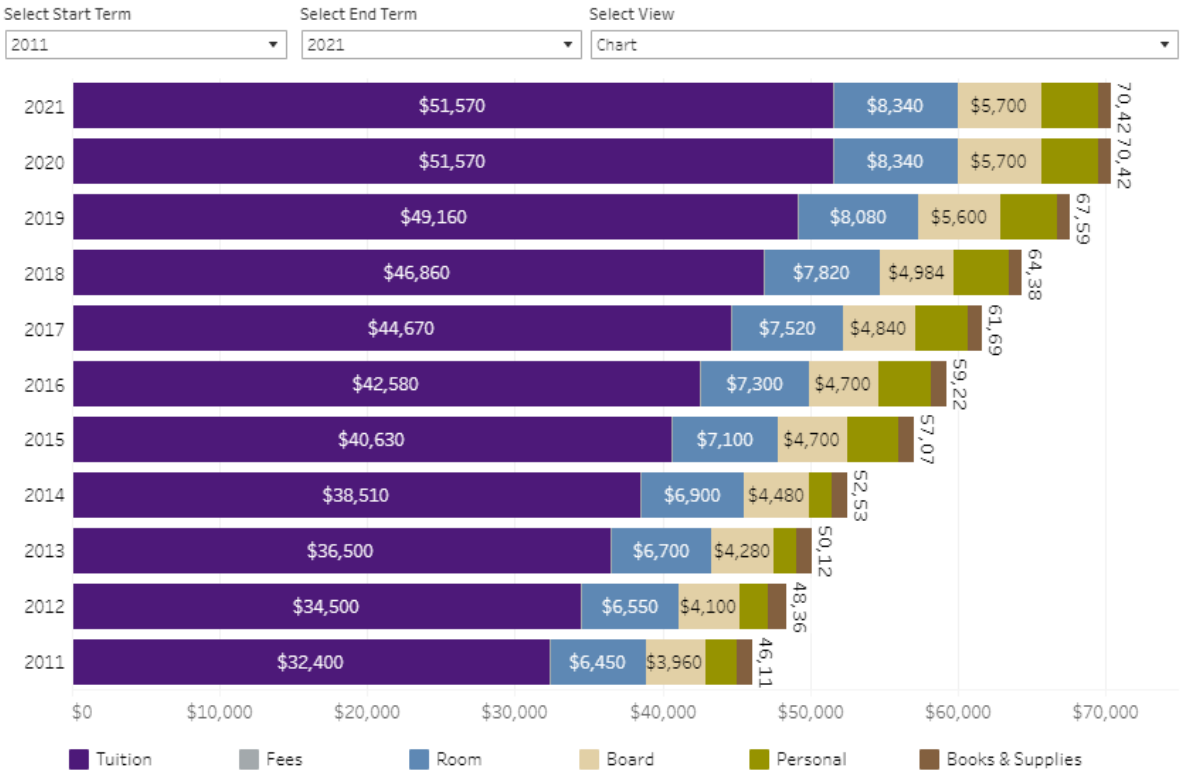
	Utilized ESTB (N = 128)		**Did Not Utilize ESTB** (N = 330)		***X²* Test**		**Effect Size**	
	n	**%**	**n**	**%**	***X²* (1)**	***p***	***ϕ***	***V***
Retained	92	71.9	117	35.5	49.310	<.001***	.328	.328
Not Retained	36	28.1	213	64.5				

*Note: N = 458. *p < .05, **p < .01, ***p < .001.*

Hierarchical logistic regression analysis was used to measure the relationship between ESTB tuition amount on employee retention within the 10-year timeframe, while controlling for the demographic variables of sex and ethnicity. While the independent variable for total tuition amount was transformed using a natural log in the hierarchical regression model for research question one, no log transform was applied to the independent variable here because logistic regression doesn't require the assumptions typically affected by skewed independent variables (Tamhane & Dunlop, 2000). However, because logistic regression coefficients tend to be too small for interpretation when the independent variable has large values, the variable for total tuition was scaled down into units of $40,000 instead of raw $1 units. This $40,000 was chosen because it was the average price of yearly tuition during the ten-year time frame, and it allowed the researcher to interpret the odds ratio for each additional year of tuition, on average (Figure 12, "Tuition and Fees," 2021).

Figure 12

Total Tuition Cost at MU during Measurement Period. Source: MU Institutional Research



The assumptions associated with hierarchical regression analysis were checked to verify that the analysis was valid. Assumptions associated with logistic regression include a dichotomous dependent variable, independent observations, a sufficiently large sample size, no multicollinearity, no significant outliers or leverage points, and a linear relationship between the continuous independent variable and the logit of the independent variable (Vittinghoff & McCulloch, 2007). The first two assumptions were met due to retention being a bivariate dependent variable and employees having independence regarding their retention behaviors. The sufficiently large sample size required that at least 50 employees were retained and 50 who were not retained, both of which were met. There were no violations of multicollinearity found, as all

variance inflation factors (VIF) were lower than 5, the highest of which was 1.02. All standardized residuals fell within two standard deviations, and no observations exhibited high leverage. Finally, the Box-Tidwell method for checking linearity between total tuition amount and the logit of retention verified there was no significant deviation from linearity ($p = .206$). Thus, all assumptions for the hierarchical logistic regression were met.

The first model that included only the control variables was not statistically significant ($X^2(4) = 3.613$, $p = 0.461$), with only 1.1% of the variability in retention explained by the control variables for employee sex and ethnicity. The variable for sex was not statistically significant ($Wald\ X^2(1) = .552$, $p < .457$), nor was ethnicity ($Wald\ X^2(3) = 2.946$, $p = .400$). The second model that included the control variables and the added independent variable for tuition award amount was statistically significant ($F(5) = 77.258$, $p < .001$), with 20.7% of the variability in retention explained by the variables of employee sex, ethnicity and tuition award amount. The independent variable for total tuition amount was statistically significant in this second model ($Wald\ X^2(1) = 37.239$, $p < .001$), but neither sex ($Wald\ X^2(1) = 1.385$, $p = .239$) nor ethnicity ($Wald\ X^2(3) = 3.104$, $p = .376$) were significant. Like the hierarchical regression analysis for research question one, the comparison between the control model and the second model that adds the independent variable was of most interest. There was a significant change from the first model to the second model when tuition award amount was added ($X^2(1) = 73.645$, $p < .001$), increasing the proportion of variability in tenure explained by 19.6%. A summary of the results from the hierarchical logistic regression analysis can be found in Table 10.

Table 10

Hierarchical logistic regression results for retention.

	b	*SE*	Exp(*β*)	*p*	R^2	ΔR^2
Model 1					.011	.011
Constant (Intercept)	-.118	.150	.889	---		
Sex - Female	-.141	.189	.869	.457		
Ethnicity – Black	-.337	.334	.714			
Ethnicity – Hispanic	.347	.310	1.414	.400		
Ethnicity – Multi	.283	.473	1.326			
Model 2					.207***	.196***
Constant (Intercept)	-.468	.165	.626	---		
Sex - Female	-.241	.205	.786	.239		
Ethnicity – Black	-.321	.357	.726			
Ethnicity – Hispanic	.315	.335	1.371	.376		
Ethnicity – Multi	.531	.489	1.701			
Total Tuition ($40,000s)	.657	.108	1.928	< .001***		

Baseline categories for dummy variables were Sex – Male; Ethnicity - White
*Note. *p < .05. **p < .01. ***p < .001*

In summary, results from research question two indicate that employees who utilize the ESTB are much more likely to show greater retention than those who do not utilize the benefit. Out of the total of 458 employees within the study, 209, or 45.6%, remained employed at MU for the full ten-year measurement period. The retention rate for employees who utilized the ESTB

for any dollar amount during their first ten-years was 71.9% compared to the retention rate of 35.5% for those who did not utilize the ESTB at all. While controlling for sex and ethnicity, hierarchal regression analysis was performed on multiple models using tuition award as the independent variable and ensuring that all assumptions were checked to verify that the analysis was valid. The slope for tuition award amount indicated that for each 1% increase in total tuition award, the odds of an employee remaining with the organization throughout the entire 10 years increased by 1.16%. Using a similar formula as the example above, for each $40,000 increase in total tuition award, employees from this study were 1.928 times more likely to retain their employment over a full 10 years (b = 657, exp(b) = 1.928), holding constant sex and ethnicity. Because $40,000 is the average annual cost of MU tuition, this means that an employee's odds of retaining their employment with the university is 92.8% higher for each additional year of education utilized through the ESTB, almost a two-fold likelihood of retention.

Research Question Three

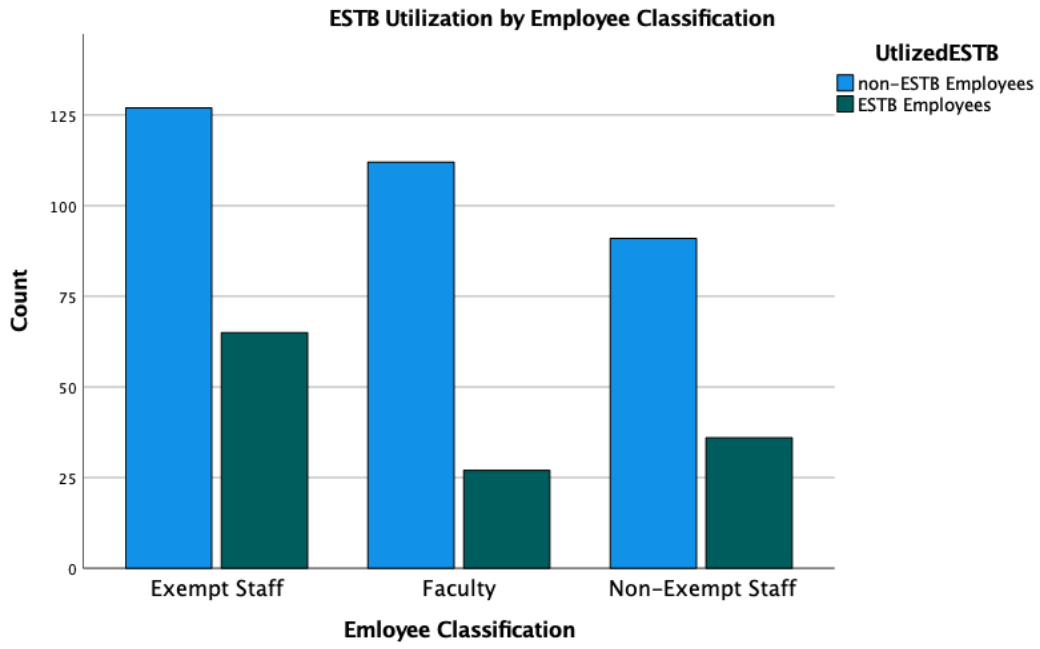
RQ3: Is there a relationship between employee class (faculty, exempt, non-exempt) and ESTB utilization?

Employee classification at MU is defined as the type of job position held by employees, divided into three groups: faculty, exempt staff, and non-exempt staff. As stated in the definition of terms section on chapter one, exempt-Staff is an employee classification in which employment is not measured by the hours worked but rather by the completion of a particular job. Sometimes referred to as salaried employees, exempt staff hours are not tracked and overtime pay is not required (Blonin, 1992). Non-Exempt Staff is an employee classification in which employment is measured by hours worked and thus governed by minimum standards of pay and overtime pay requirements for those employees working over forty hours per week. Non-exempt employees

are sometimes referred to as hourly employees (Blonin, 1992). Faculty is an employee classification within the higher education industry to describe teachers and mentors paid a set salary to educate students within a classroom setting (BoSold, 2012). Faculty at the university within this particular case study receive the same benefits package as exempt and non-exempt employees, save for the way that vacation and sick leave is tracked. Out of the 458 employees in the study, 192 were exempt staff (41.9%), 139 faculty (30.3%), and 127 non-exempt staff (27.7%). Exempt staff had the highest rate of ESTB utilization (33.9%), followed closely by non-exempt staff (28.3%), and faculty had the lowest utilization rate (19.4%). Figure 11 below illustrates the comparison of utilization rates within each employee classification group.

Figure 13

ESTB utilization by employee classification.



A chi-square test for independence was used to determine if there was a relationship between the two categorical variables of ESTB utilization and employee classification. Assumptions for this chi-square test were met, as all combinations of the two categorical variables had expected values above 5. Results indicated that there was a significant relationship between employee class and ESTB utilization ($X^2(2) = 8.351$, $p = .015$), with a small effect size ($\phi = .135$, $V = .135$). Exempt staff and faculty contributed the most to this relationship, with fewer faculty utilizing the ESTB than would be expected if there were no relationship and more exempt staff utilizing the benefit than would be expected. Non-exempt staff demonstrated no strong differences between what was observed and what would be expected had there been no relationship between ESTB utilization and employee classification. Table 11 summarizes the observed counts, expected counts, rates of utilization, and results of the chi-square test for independence.

Table 11

Summary of ESTB utilization by employee classification. (Expected Counts).

	Utilized ESTB	**Did Not Utilize ESTB**	**Utilization Rate (%)**	X^2 **(2)**	p	ϕ
Exempt Staff	65 (54)	127 (138)	33.9			
Non-Exempt Staff	36 (35)	91 (92)	28.3	8.351	<.015*	.135
Faculty	27 (39)	112 (100)	19.4			

*Note: N = 458. *p < .05, **p < .01, ***p < .001.*

Conclusion

The purpose of this study was to examine the relationship between ESTB utilization and employee tenure, retention, and classification. Results from research question one indicate that employees who utilize the ESTB are more likely to have longer tenure than those who do not utilize the benefit. Similarly, results from research question two show that employees who utilize the ESTB are more likely to retain employment over a full 10 years than those who do not utilize the benefit. Finally, research question three indicated that employee classification (faculty, exempt staff, and non-exempt staff) is related to ESTB utilization, meaning that utilization rates are not the same across the three different types of employees. In summary, utilizing an ESTB program has a positive effect on retaining employees, and its relative importance depends on the type of employee and how much they utilize this benefit.

Chapter 5

IMPLICATIONS AND DISCUSSION

The purpose of this quantitative case study was to determine if utilization of an ESTB over a ten-year period influences employee retention and tenure at a private, mid-sized higher educational institution. Understanding the correlation between these variables should give University Presidents, Board of Trustee Members, HR leadership, and other stakeholders, the ability to make strategic benefit and employment decisions based on data as opposed to broad assumptions or gut instinct as is often the case now. This chapter includes a summary and discussion of the findings, implications and interpretations of the findings, limitations of this particular study, and future research topics based on this study that would help advance the overall research. All information from this chapter is based on answers to the following research questions:

RQ1: Does utilization of employer-sponsored tuition benefits (ESTB) by higher education employees influence employee tenure over a ten-year period?

RQ2: Does utilization of employer-sponsored tuition (ESTB) benefits by higher education employees influence employee retention over a ten-year period?

RQ3: Does utilization of employer-sponsored tuition (ESTB) benefits have a relationship or dependency with employee class (faculty, exempt staff, non-exempt staff)?

Methodology

Employee tenure and employee retention were measured using regression analysis while controlling for ethnicity (White, Black, Hispanic, Asian, other) and sex (male, female), and

moderating for employee-type (exempt, non-exempt, and faculty.) Employee tenure was represented as a continuous variable showing the number of years employed during the first ten-years following the date of hire. Employee retention was represented as a dichotomous variable (yes/no) identifying whether or not an employee reached the full ten years of employment following the date of hire.

Results

This study measured the retention and tenure of 458 higher education employees at a mid-sized institution, all hired during the same time period, and tracked them over a ten-year period to determine the influence of ESTB utilization on both tenure and retention. 128 employees out of 458 employees, or 28%, utilized the ESTB program at the university at some point during their 10-year measurement period ranging from $2,900 to $554,605 with a mean of $116,046 and a median of $91,328. The researcher originally hypothesized that ESTB utilization would increase retention and tenure which was a correct assumption. After tracking a sample of 458 higher education employees over 10 continuous years, the data clearly showed that those employees who utilized the ESTB remained employed at the organization for an average of over 3 years longer than employees who did not utilize the benefit. Furthermore there was a 36.4% greater likelihood that an employee who utilized the ESTB will stay employed for all 10 years compared to an employee who did not utilize the ESTB. Because tenure and retention are positively influenced by tuition award amount, the regression showed that employees utilizing the benefit for an undergraduate degree consisting of 124 credits are 16.1% more likely to stay employed all 10 years than those employees utilizing the benefit for a graduate degree consisting of 36 credits. In terms of demographics, controlling for ethnicity and gender, exempt employees and faculty were shown to be string utilizers of ESTB.

Discussion

Employee Value

Existing research (Tillman, 2013) shows that employees who self-report satisfaction or extreme satisfaction with their employer's benefit package, are six times more likely to remain at that organization than those who are dissatisfied. Furthermore, ESTB programs have been shown to be important components of the employee development strategies of many employers (Dougherty & Woodland, 2009). This new research provides empirical data confirming that ESTB programs are in fact a valued benefit by employees and this value is expressed through retention and tenure. Employees in this study who utilized an ESTB for one full undergraduate degree remained employed for 3.06 years longer employees who do not utilize the benefit and the odds of them remaining employed for the full 10 years of the measurement period are 7.7 times greater. The core idea behind this functional exchange relationship is the theoretical framework of the psychological contract. Two parties share an understanding while striving to maintain a fair balance in the reciprocal contributions that each has to offer to one another based on that understanding (Blau, 1964). Regression confirmed this relationship showing that the greater the ESTB award amount, the greater the employee retention and tenure. Of all degrees offered under the ESTB, undergraduate tuition was shown to be the strongest driver of employee retention and tenure at MU. Because the average undergraduate degree at MU requires 3 to 4 times the amount of credit hours as a graduate degree, the cost and subsequent value of the ESTB is 3 to 4 times greater coupled with the fact that MU does not restrict credits per semester for dependent ESTB like they do for employee ESTB.The undergraduate degree earned by an employee dependent serves more as a transactional psychological contract between the employee and the organization motivated by short-term economic factors requiring low emotional

investment (Rousseau 1995; DelCampo, 2007). Because of this transactional relationship, an employee utilizing the ESTB for dependent undergraduate education can be counted on for tenure and retention *before and during* the years of actual study but after graduation, the transaction is essentially over and organizations must rely on other means to retain the employee.

For employees within this study that utilize the ESTB for their own education, the relationship between employee and employer becomes more complex. Regression shows that an employee utilizing the ESTB for a graduate degree consisting of 36 credits is 16.1% less likely to remain employed all 10 years as opposed to an employee using it for an undergraduate degree consisting of 124 credits. Employee ESTB utilization may be transactional in nature during the pursuit of a degree but after graduation, the transaction takes on the form of a relational psychological contract between employees and employers, often driven by higher emotional involvement. This employee belief that positive performance will be followed by rewards or some work-related outcome holding value is driven by the theoretical framework referred to as expectancy theory. If the employee graduates using an ESTB and their expectations are not met or positive performance is not followed by a reward (usually in the form of promotion or salary increase), Becker (1964) posits that the employee, now armed with a marketable degree and a plethora of transferable general skills, will depart for a competing organization where they will seek the reward they feel they deserve.

Replacement Cost

This quantitative study on ESTB was modelled around Becker's (1964) theoretical framework of standard human capital. This model is driven by knowledge, skills, and expertise held by employees of an organization gained through such things as employer training, higher education, or experiential learning that serve to provide a competitive advantage within an

organization or industry through employee productivity and business continuity (Hatch & Dyer, 2004) The research data from this study confirms that utilization of an ESTB program increases both employee retention and tenure which translates to an increase in business continuity, or human capital of the organization. This new knowledge can then be applied to existing research on replacement cost to determine the value-added of an ETSB program to the organization. In the literature review the researcher cited multiple examples showing between 20% and 40% of replacement cost over original compensation for each outgoing employee (Boushey & Glynn, 2012; Ramsay-Smith, 2004). Replacement costs represent such expenses as temporary labor, advertising, recruitment, training, and salary and productivity differential (Garman et al, 2005). If an organization determines that the total cost of their ESTB program is less than the value-added of keeping retaining employees, then leadership would be wise to maintain or even increase the richness of their ESTB. To put this model to work, a 30% replacement cost applied to a terminated employee with a $50,000 salary equates to an average replacement cost of $15,000 per employee. When this replacement cost is then applied to all 330 non-ESTB utilizers taking into account the 3.06 years of shorter tenure over the 10-year measurement period, the organization could expect to spend an additional $5,000,000 to replace them. Subsequently, the organization can expect to save $1,920,000 in replacement costs for the 128 ESTB users who remained at the university for the additional 3.06 years. If the salaries of those 330 non-ESTB utilizers average $100,000 per year rather than $50,000, the replacement cost would double to $10,000,000. Specific salaries of the participants were not included in the model due to privacy and confidentiality purposes. The researcher found the break-even point to be the total tuition expense for the 128 employees who utilized the ESTB at MU during the measurement period which equaled $14,853,859l. If an organization determines that the total cost of their ESTB

program is less than the value-added of keeping employees for an average of 3.06 additional years over a 10-year measurement period, then leadership would be wise to maintain or even increase the richness of their ESTB.

Employee Utilization

Ethnicity. Out of the 458 participants in the study hired between 6/1/08 and 5/31/11, 348 (76%) were white, 48 (10.5%) were Hispanic, 43 (9.4%) were black, 16 (3.5%) were Asian, and 3 (.6%) were multi-racial or Pacific Islander. Compared the to the overall ESTB utilization rate of 27.9%, white employees exhibited a 27.6% utilization rate, Hispanic employees exhibited a 31.3% utilization rate, black employees showed a 32.6% utilization rate, and Asian showed an 18.8% utilization rate. The ESTB utilization rate was comparable across all ethnicities and because no outliers were found, no additional investigation was required. A new-hire population of 76% white employees at MU over a two-year period is abnormally high compared to the over United States population thus the results from this study might not be fully transferable to other higher education institutions, particularly Historically Black Colleges and Universities or schools with more diverse populations. Furthermore, African America/black and Hispanic faculty hires only accounted for 7% of total faculty hired during this period which is much lower than would be expected. Of that 7% of total faculty (10 employees), only 1 of them utilized the ESTB over the course of the 10 year measurement period. The institution could benefit from the implementation of more diverse hiring practices in addition to expanding the reach of the ESTB coupled along with other financial aid to help encourage utilization. These tactics should not only assist underserved populations overcome barriers of entry into higher education but would also help the retention and tenure of a more diverse employee population which has been a focus of diversity and equity initiatives within the strategic plans of many universities in recent years.

Degree Type. Ethnicity and sex were held constant as control variables for hierarchal regression within the study. When analyzing type of degree sought, utilization data showed that of the 128 ESTB employees, 83 (64.9%) utilized the ESTB for undergraduate education, 42 (32.8%) utilized it for graduate education, and 3 (2.3%) used it for both. Dependent children comprised the largest share of the of the overall student population. 61 (47.6%) dependent children utilized the ESTB program, 44 (34.4%) employees utilized the ESTB program for their own education, and 16 (12.5%) spouses utilized the benefit. There were 7 (5.5%) instances where the ESTB beneficiary was more than one person. A detailed summary of total ethnicity, degree type, tuition type and employee type of the sample can be seen in Figure 14.

Figure 14

Data Analysis of MU ESTB by employee type and ethnicity. Source: MU Institutional Research

total tuition by ethnicity

			Exempt Staff		Non-Exempt Staff		Faculty		Grand Total	
Ethnic Grp	Tuition 1 Degree	Tuition 1 Type	N	Total Tuition	N	Total Tuition	N	Total Tuition	N	Total Tuition
ASIAN	UGRD	Dependent					1	$347,235	1	$347,235
		Employee					1	$14,220	1	$14,220
	Grad	Spouse					1	$20,520	1	$20,520
	Null	Null	6	$0	1	$0	6	$0	13	$0
BLACK	UGRD	Dependent			1	$157,680	1	$246,990	2	$404,670
		Employee	3	$183,793	1	$131,896			4	$315,689
		Spouse	2	$118,620	1	$21,290			3	$139,910
	Grad	Employee	4	$160,545	1	$11,760			5	$172,305
	Null	Null	18	$0	7	$0	4	$0	29	$0
HISPA	UGRD	Dependent	1	$269,685	6	$886,970			7	$1,156,655
		Employee	2	$31,280	3	$275,780			5	$307,060
		Spouse			1	$11,220			1	$11,220
	UGRD-TE	Dependent			1	$274,000			1	$274,000
	Grad	Employee	1	$13,500					1	$13,500
	Null	Null	2	$0	26	$0	5	$0	33	$0
MULTI	Null	Null					2	$0	2	$0
PACIF	Null	Null	1	$0					1	$0
WHITE	UGRD	Dependent	19	$2,765,853	15	$3,599,021	13	$2,502,737	47	$8,867,611
		Employee	3	$455,003	1	$90,350			4	$545,353
		Spouse	3	$184,685					3	$184,685
	UGRD-TE	Dependent	1	$75,000	1	$136,000	4	$556,000	6	$767,000
	Grad	Employee	20	$914,847	4	$125,021	3	$91,275	27	$1,131,143
		Spouse	6	$137,993			3	$43,090	9	$181,083
	Null	Null	100	$0	57	$0	95	$0	252	$0
Grand Total			192	$5,310,804	127	$5,720,988	139	$3,822,067	458	$14,853,859

N and Total Tuition broken down by Emloyee Class vs. Ethnic Grp, Tuition 1 Degree and Tuition 1 Type.

After analyzing ESTB utilization based on employee type, the researcher found that there was a higher utilization rate for exempt staff than was to be expected, a lower rate for faculty, and a flat rate for non-exempt employees. One explanation for the lower utilization rate among faculty may be the requirement that all MU tenure-track faculty possess a terminal degree before they are hired. While faculty are certainly permitted to pursue additional degrees under the ESTB, most do not as further education is not necessary to increase their career trajectory. As such, faculty ESTB utilization is skewed more towards the dependent benefit utilization. Furthermore, faculty work almost exclusively at universities as their teaching and research skills are specific to higher education, most of which offer an ESTB program. A Sibson (2016) consulting study of 450 private and public higher education institutions found that 71% of the institutions allowed dependent children of employees to attend their institution under an ESTB, though eligibility requirements tended to vary. The skillsets of exempt and non-exempt employees within a university may be more generalized and thus more transferable to private organizations or businesses within a geographic area, many of which cannot offer comparable ESTB programs to that of universities. Because of this, an administrative assistant or residential housekeeper may find that, all things being equal, the opportunity to utilize an ESTB for themselves or their dependents through employment at a university to be a very valuable benefit. Many exempt jobs, specifically entry level jobs within the administrative shell of a university, do not require graduate or terminal degrees upon hire. Because of this, there is more opportunity and capacity for exempt employees to receive promotion or salary increases over time by achieving an additional degree than there exists for faculty.

There are also interesting findings on utilization in terms of ethnicity. Multiple research studies (Heller, 2017; Capt, 2014) from the literature review found that certain socio-economic

populations are negatively impacted by financial barriers of entry into higher education at a much higher rate than others. Non-exempt (hourly) employees within the study proved to be more ethnically diverse (non-white) than both faculty and exempt staff so based on existing research, this group may show more dependency on an ESTB than both faculty and exempt staff, two employee groups with traditionally less diverse populations and higher salaries. Research proved this assumption to be false as non-exempt employees showed the least ESTB utilization amongst the three employee groups. Possible reasons for poor ESTB utilization among non-exempt employees at MU may be that ancillary costs of higher education at a private institution, such as room and board, fees, and books are still too high for many. Familial culture surrounding first-generation students and higher education admission barriers may also play a role. Both of these assumptions are addressed in the future research section and should be explored in greater detail. This chapter has introduced the results of the study and subsequent discussion topics surrounding the results and will now address the implications of these findings and introduce opportunities for future studies to expand on this research and move the entire field forward.

Implications

This study provides quantitative data to leaders and stakeholders within higher education to reinforce what many may have only been able to presume—that providing an ESTB program contributes toward employee retention and tenure. The researcher also applied this knowledge to existing cost formularies to show how an increase of employee retention and tenure can directly translate into cost savings to an organization. This next section will explore the implications of these findings and answer the question higher education leaders may be asking themselves: so what now?

Employee Value

The rising cost of tuition in the United States has rendered a college degree, especially at private higher education institutions, out of reach for many Americans. Recall that Best and Keppo's (2014) research showed a strong correlation between tuition and debt suggesting that students respond to higher tuition by increased borrowing. This is only reinforced by the Institute for College Access and Success who found that over 7 million students took out federal loans in 2017, 25% of were delinquent or in default by 2018. This quantitative study clearly show that employees value an ESTB which directly translates to increased tenure and retention. It is imperative for organizations, specifically universities, to examine the impact that an ESTB has on attracting and retaining top employee talent and capitalize on this. This provides strong justification for organizations to maintain or even expand educational benefits in the form of ESTBs, even in the face of short-term of financial hardship. As discussed in previous chapters, Tuition Exchange programs also provide additional leverage to organizations by offering the opportunity for employee dependents to attend other universities within the consortium as long as they are both accepted and are awarded a scholarship by that school. Exported students are not directly expensed to the exporting university but because there is a one-to-one exchange requirement, the exporting school then must expense the tuition of an incoming student. Continuing to provide rich ESTB and Tuition Exchange programs to retain employee talent allows universities to leverage their own product in ways other industries cannot and therefore should be maintained or expanded at every turn. Universities must stand behind their own product and providing a strong ESTB program to their employees is an endorsement in both their future and the future of the organization.

ESTB vs. Other Benefits

In the literature review, the researcher examined the value of an ESTB in the context of an entire employer-sponsored benefit package comprised of other valuable benefits such as medical insurance and 401(k)/403(b) retirement investments. Existing research (Bailey & Chorney, 2016; Benson, 2006) coined the terms "job lock" and "golden handcuffs" to describe the way health insurance and retirement contributions work in conjunction to help organizations attract and retain employees through the promise of future rewards. This current research showing the positive influence of ESTB programs on employee retention and tenure provides strong evidence that tuition benefits can also be included with health insurance and retirement as one the three major employer-sponsored benefits that contribute to positive retention and tenure, or job lock. Because benefits are often offered as a package, it is often difficult for an organization to differentiate the attraction or retention power of one benefit versus another. It has been established that benefits are expensive and next to salary, are often one of the largest expenses within an organization. Because higher education leaders and shareholders have finite resources, it is essential for them to realize the true costs and benefits of each individual offering and how these offerings work in relation to one another should budget cuts be required.

Hard vs. Soft Accounting

To answer questions surrounding the comparison of benefits, answers often lie in how organizations classify costs on their financial reports and whether they incorporate hard or soft accounting methods. As defined in chapter two, organizations who utilize hard accounting choose to expense the full cost of a benefit on their financial books while organizations who utilize soft cost accounting can recognize the value of a benefit without recognizing any additional expense. The following section will explore how the results from this study show that

ESTB can provide higher education leadership with key strategic advantages over competing employers, advantages that retirement and medical benefits simply cannot provide. This knowledge will become extremely important should leaders feel external or internal pressure to enhance, reduce, or even eliminate one or all these benefits in the name of efficiency.

Employer retirement contributions invested through 401(k) or 403(b) plans are generally considered hard costs to the organization once invested with the exception of any money that comes back to the organization due to unmet vesting or eligibility requirements. While retirement benefits are certainly valued, they are offered at most employers allowing employees to easily measure, compare, and contrast, their value across organizations and industries. Similar to retirement benefits, medical insurance is a valuable, yet expensive employer benefit offering to the employee. Like retirement benefits, medical benefits are expensed to the organization using hard cost accounting typically consisting of premiums for those employers offering fully-insured medical plans or in the form of claims costs for those employers large enough to offer self-insured medical insurance. Either method brings increased financial risk and expenses from year to year so the only way to measure this expense is to directly compare the value of the retention and tenure that the benefit brings versus the premium or claims costs. Benefits of medical insurance in the form of soft cost would be the employee attraction, retention, or tenure (i.e. job lock) that an organization receives from its employees for the assurance that any future medical costs would be covered should they ever arise.

Finally, it is important to analyze the cost and effect of an ESTB program on the overall organization and also in comparison to retirement benefit and medical benefit offerings. For private industry or for non-collegiate organizations that are unable to directly provide higher education to their employees, the ESTB benefit must be represented through hard accounting

practices. While still contributing to the value to the organization through employee retention and tenure, if that value is less than the cost of tuition, providing the benefit may not be a sound financial decision. Higher education institutions on the other hand, are in a unique position to capitalize on the ability to treat ESTB costs as soft costs rather than hard costs since they provide the education internally rather than having to outsource it. For the purposes of this research, soft cost means that providing the ESTB to employees, spouses, or their dependents does not significantly add expense to the organization. This practice is financially sound as long as student using the ESTB is not physically preventing an external tuition-paying student from also attending. In these cases, the institution can experience the full financial benefits of employee retention and tenure represented in this study while not experiencing any of the hard costs that other industries must endure. In conclusion, how the institution defines the accounting of ESTB cost drastically changes the value of the benefit from an organizational standpoint. Per Bergman, et al, 2018, if a tuition assistance program can recruit and retain quality employees at a university for little to no additional cost, the decision to offer an ESTB program is highly beneficial to an organizational benefits package. This is especially important to emphasize because expanding medical or retirement benefits is inevitably accompanied by an increase in hard cost. Because ESTB programs within higher education institutions tend to capitalize on soft costs, universities should maximize their strategic advantage over other industries by maximizing their ESTB programs.

Economic Systems

Organizations such as universities that offer ESTB programs are often the product of the economic system that they operate within. The literature review mentioned that most industrialized nations contribute to the welfare of their citizens through government-sponsored

programs that provide health and safety benefits to protect citizens from the consequences of economic fluctuations (Dulbohn, Malloy, Pichler, & Murray, 2009) the United States continues to place this onus on private organizations instead. Jacoby (1997) coined this type of security offering as "welfare capitalism," where financial security is provided to employees in the form of benefit packages in exchange for their services. This case study was administered through an institution within the United States and clearly shows that based on employee retention and tenure data, employees value the ESTB whereas this might not be the case in Europe where universal higher education is more common. If tuition or other social security offerings such as universal medical insurance become commonplace within the United States at an point in the future, private organizations would need to rethink employee retention strategies altogether. Benefit budgets would decrease but retention and tenure would seemingly decrease as well pushing an impetus on private employers to increase salaries and finally offer lower tier employees living wages if they value business continuity as expressed within the framework of human capital management.

Limitations

Data Inconsistency and Sample Size

A major hurdle to this research project and other studies within the field of ESTB is the ability to gather a clean data set in order to make reliable inferences on results related to tenure and retention. Comparing ESTB utilization data from different populations and time periods would have surely yielded larger sample sets and the ability to run regression data, for many subsets of interest such as ethnicity, student-type, employee-type, and degree-type, but the populations would have been wildly inconsistent, comprised of different students, different employees, different eligibility periods, and different external drivers such as interest or inflation

rates. To overcome this inconsistency, the researcher limited the population sample to a finite hiring period allowing for a large enough population to be reliable but also ensuring all employees in the study abided by the same eligibility period and utilized the benefit under the same conditions. The full data set contained data on 458 employees and spanned 13 years but all individual employee data ceased at 10 years. The extra 3 years of data allowed for the inclusion of additional employees within the hiring set and allowed the researcher to guarantee a full 10 years for everyone in the set, even someone hired on the final day of the measurement period (5/31/11). Even though research included 458 employees in the overall sample set, only 128 of them actually utilized the ESTB. While 128 is well within the normal range to produce valid overall results using regression, ESTB participation within the various ethnicities was found to be too small a population to run regression on each ethnic group of ESTB users compared to the overall population of ESTB users. Uncovering this comparison data would be extremely helpful for stakeholders of the organization in order to identify possible underrepresentation or blind spots among specific employee groups such as non-exempt employees, possessing a greater variety of ethnicities than exempt employees or faculty. Leveraging the ESTB for these specific groups would not only add value to the organization in terms of increased retention and tenure but also a wide array of other popular strategic planning initiatives such as diversity and inclusion.

Termination and Demographic Information

This quantitative study relied on employee utilization of ESTB to predict length of tenure and retention, but the study cannot differentiate whether a termination within the data set was voluntary or involuntary. When measuring the influence of ESTB programs using retention and tenure data, this study assumes that employees have full autonomy over their date of termination.

Because involuntary turnover falls outside of the scope of this study, final results may not tell the whole story for some employees. Using quantitative data alone fails to capture the employee's opinion on the influence of other benefits within an employer benefits package such as medical insurance, Rx insurance, and 401(k)/403(b) retirement plans or other forces that contributed to their retention, tenure, or exit. Qualitative employee interviews would certainly help reveal the influence of other benefits, such as a particular specialty medication, are equally or even more important to retention and tenure than the ESTB program. Furthermore, the study fails to consider that many employees within the data set may not have dependent spouses or dependent children eligible to attend classes under the ESTB or have them at all. It is a strong probability that certain employees within the population set either had no spouse, no dependent children, had dependent children over the maximum age to participate, or had dependent children who were not interested in attending MU or any of the TE schools. For these employees, the ESTB holds no tangible value therefore would have had no influence on their retention or tenure.

Future Research

This research paper explores the impact of ESTB programs on employee retention and employee tenure but is restricted to the quantitative retention and tenure data within the set parameters presented in chapter 3.

Mixed Methods Research

Expanding this quantitative research study to also include a qualitative or mixed methods component would add great depth to the findings. Participant interviews from specific population sets could confirm if ESTB was truly a driver of retention and tenure as the quantitative research shows. In addition to galvanizing the quantitative findings on tenure and

retention, qualitative interviews could also provide insight into whether the ESTB played a role in attraction to the organization which cannot be shown by measuring tenure and retention alone.

Ethnicity and Vulnerable Populations

Regression analysis of specific demographics within an organization such as ethnicity, salary level, and employee class using the ESTB would provide for interesting future research if a sample set was large enough to allow for regression. If ESTB utilization is a greater predictor of retention or tenure among particular groups when compared to a population at large, the organization can focus on these groups to be aware of any possible blind spots or deficits that may exist and ultimately support them in their utilization of ESTB programs while also strengthening the organization through increased tenure and retention. A major data point to focus is salary as the lower salaried employees would have the most to gain by utilizing an ESTB program and thus should presumably show the greatest rate of retention and tenure.

Higher Education Accounting Methods

Future research on ESTB accounting practices within higher education would be valuable to the field of research under the theoretical framework of human capital management. Institutions who consider ESTB to be hard accounting costs to the organization may be much more apt to consider budget cuts to benefit programs in times of financial hardships than institutions who consider ESTB to be a soft accounting cost. Future research is also needed to explore how ESTB programs are used to recruit and retain student quotas within specific colleges and programs within a university. Similarly, how a university shifts ESTB costs between the university budget and the various departmental budgets would be also interesting to analyze.

Retention after ESTB Utilization

This study strictly measures the retention and tenure during periods of ESTB utilization. A basic principal-agent relationship exists where employees receive tuition reimbursement from the organization in exchange for ongoing employment. For employees utilizing the benefit on behalf of a dependent child, the principal-agent relationship presumably ends once the student graduates and the ESTB no longer holds value. For employees utilizing the benefit on behalf of themselves, the value of the ESTB may extend beyond graduation in the form of expectations within the university such as promotion, increased salary, or a change in industry. Frenkel and Bednall (2016) introduced the theory of procedural justice in the workplace with the idea that promotion and career trajectory should be consistent with training and degree achievement or else risk eroding the employee's expectations that present behavior predicts future rewards. Based on this theory and the theoretical frameworks of expectancy theory and psychological contracting, future research could explore how organizational development programs can support employees utilizing ESTB programs and help them accomplish their goals, meet expectations, or increase their career trajectory after graduation. On the contrary, research on an organization's lack of support for employees after graduation from an ESTB would also be important. Burton, Holtom, Sablynski, Mitchell, and Lee (2010) researched employee turnover and found that mistreatment in the form of "shocks," or crucial events such as negative performance reviews, public humiliation, or promotion denials prompt employees to contemplate leaving an organization at specific points in time. Identifying these shocks and working to alleviate them before they escalate would help organizations keep the talent that they trained through ESTB programs and not lose them to other organizations, as Becker (1965) postulated years ago.

Replication and Expansion

The results of this study are profound and show a relationship between utilization of an ESTB program and employee retention and tenure at a private, mid-sized research university in the southwestern United States. Because this is only one university out of many that exist within the world, university administrators, stakeholders, and all others with influence or interest in the field of employee benefits, would benefit if this study were to be replicated at other universities of different sizes, locations, and employee makeups. Diversity of data would help confirm the results of this study and also expand the understanding of ESTB programs across a greater sample of employees and institutions to ensure that organizations are maximizing the impact of such programs for both employee satisfaction and the overall financial health of the organization, driven by the business continuity and retention of institutional knowledge through healthy employee retention and tenure.

Conclusion

This research study clearly shows a significant correlation between employee retention and tenure and utilization of an ESTB program and provided strong evidence to answers to all three research questions. This quantitative research study builds on existing theoretical concepts of human capital management, expectancy theory, and psychological contracts to show that utilization of employer-sponsored tuition benefits (ESTB) by higher education employees directly correlates to increased employee tenure and retention. ESTB utilization over a 10-year period was measured using hierarchal logistic regression on a sample of 458 newly-hired employees broken down by employee class, ethnicity, and degree type. Results found that the 128 employees who utilized ESTB remained employed 3.06 years longer on average than employees who did not use the benefit projected to increase by 6.6% on average for every 100%

increase in tuition utilized. Employees who utilized ESTB showed a 36.4% greater probability of remaining employed all 10 years with the odds of remaining with the organization increasing by 98% for every additional year of undergraduate education earned through the ESTB. There was also found to be a positive relationship between employee class and ESTB utilization with exempt employees and faculty driving the results. These are significant findings in the field of employer benefits as this new research offers university leaders such as Chancellors, Chief Executive Officers (CEOs), Human Resource Executives, and Chief Financial Officers (CFOs) empirical evidence to strategically manage employee retention and tenure through the use of ESTB programs rather than simply relying on "gut instinct."

The researcher showed that employee benefit plans make up a significant annual expense to an organization's annual budget which often makes them a target for budget cuts in times of financial stress. While reducing or eliminating ESTB programs may result in greater short-term financial flexibility, the long-term consequences could be devastating as this research proves that reducing or eliminating ESTB programs will hurt employee retention, tenure, and attraction. Because business continuity has been a proven valued through research surrounding human capital, this study should be a wakeup call to importance of a strong benefit plan, more specifically a strong ESTB program.

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VITA

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EDUCATION

Texas Christian University Fort Worth, Texas December 2021
TCU College of Education
Doctor of Education in Higher Education Leadership (Ed.D)*
**Dissertation: Measuring the influence of employer-sponsored tuition benefits on employee retention and tenure*

University of Denver Denver, Colorado June 2004
Daniels College of Business
Master of Business Administration (M.B.A.)

University of Florida Gainesville, Florida December 2000
Warrington School of Business
Bachelor of Arts in Business Administration (B.A.B.A.)

WORK EXPERIENCE

Texas Christian University Fort Worth, Texas September 2017-Current
Assistant Director of Benefits

- 2017 Human Resource Winner and Finalist for the Chancellor's Staff Award for outstanding service

- Assistant Director of an amazing benefits team overseeing the benefits at a world-class higher education institution of over 2,300 full time employees for the purpose of attracting and retaining quality talent to the organization. Benefit oversight also includes the Brite School of Religion and the TCU Medical School.

- Functional lead of the TCU Retirement Plan including 403(b), 457(b), and 457(f) Deferred Compensation Plans. Experience with both defined contribution and defined benefit plans.
    - Experience includes payroll operations, campus communication, IRS compliance, strategic planning, ERISA and Church Plan compliance, non-discrimination testing and audits, legal oversight, plan documentation, revenue credit, vendor contracts and relationships, employee education, and executive compensation

- Co-functional lead over strategic benefits planning with emphasis on the self-insured medical plan. Experience working with primary/ancillary benefits consultants on plan design, claims management, vendor relationships, contract/fee negotiation, federal and state compliance, wellness, and onsite health clinic modelling; Annual open enrollment planning, communication, and operation in English and Spanish

- Experience overseeing all ancillary benefits including dental life insurance, long and short-term disability, additional insurance, medical and dependent care FSA, HSA, and childcare assistance

- Human Resource liaison and frequent speaker at university governing body meetings
    - Served on the Executive Committee of TCU Staff Assembly from 2013-2019

- Functional HR lead for the university's implementation and ongoing Affordable Care Act (ACA) compliance

- Contract liaison to the Vice Chancellor of Finance (CFO) for all HR-related contracts

- Functional HR lead for annual projection and operation of TCU's $90 million dollar benefit budget and annual Retiree Medical Valuation and FAS106 long-term liability management

- Functional HR lead for tuition benefit design, operation, and compliance including benefits at TCU, community colleges, and membership in the Tuition Exchange consortium of over 750 other schools

FORMER WORK EXPERIENCE

Texas Christian University Fort Worth, Texas June 2014-August 2017
HR Benefits and Retirement Compliance Manager

Texas Christian University Fort Worth, Texas October 2008-May 2014
HR Benefits and Compliance Analyst

Dean, Jacobson Financial Services, LLC Fort Worth, Texas October 2007—June 2008
Pension Plan Administrator

Reliance Trust Company Atlanta, Georgia July 2006—September 2007
Individual Retirement Account (IRA) Team Leader

HONORS AND AFFILIATIONS

- Current member of CUPA-HR and SHRM
- Eagle Scout, Boy Scouts of America; VFW Pinellas County Eagle Scout of the Year (1998)
- University Christian Church Endowment Committee (2011-2014); Investment Committee Chair (2011-2014); Fundraising and Gift-Planning Experience
- King Salmon Fishing Guide/Captain; Thomas Fishing Lodge, Crooked Creek, Alaska (2001)
- U.S. Coast Guard Licensed Master Captain (2001-2005)
- Delta Sigma Pi (Professional Business Fraternity) University of Florida (1998-2000)
- Bright Futures and Florida Academic Scholarship Recipient; University of Florida (1996-99)
- Study Abroad; Art History/Classical Architecture; Florence, Italy (Summer 1995)