A Quantitative Study of the Relationship of Organizational Commitment and Compensation Satisfaction with Stay Intentions Among K-12 Information Technology Workers

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Abstract

This quantitative non-experimental survey study examined the predictive relationship between compensation satisfaction or organizational commitment and K-12 IT workers' intention to stay. The study included 247 IT workers employed by six school systems from a metropolitan area in the Southeastern United States. Additionally, the study examined the correlation between compensation satisfaction and organizational commitment. Statistically significant differences were examined between IT workers of different ages, sexes, primary work locations, and employment durations. Binary logistic regression, Spearman correlation coefficients, and non-parametric ANOVA statistical methods were employed. Descriptive statistics were calculated.

Results indicated that both compensation satisfaction and organizational commitment were statistically significant predictors of K-12 workers' intention to stay employed by their school systems. Organizational commitment was found to be a more reliable predictor than compensation satisfaction. A weak positive correlation was found between compensation satisfaction and organizational commitment. No statistically significant differences were found between IT workers of different ages, sexes, primary work locations, or employment durations.

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Chapter I

INTRODUCTION

Overview

Information Technology (IT) worker turnover is a worldwide, persistent, and significant threat facing organizations across various industries (Carayon et al., 2006; Coombs, 2009; Ladelsky & Catana, 2013). Turnover is expensive for organizations in terms of lost knowledge or skills, employee replacement costs, lost productivity, project disruptions, operational disruptions, and adverse effects on employee morale (Apostel et al., 2018; Heskett et al., 2008; Mitra et al., 1992; Park & Shaw, 2013; Shaw, 2011). IT workers are essential to the operation of modern organizations as they support, maintain, and develop information technology infrastructure or software, including critical roles such as system administrator, network administrator, desktop support, software developer, enterprise architect, and information security specialist (U.S. Bureau of Labor Statistics, 2018). K-12 organizations are a major employer of IT workers (U.S. Bureau of Labor Statistics, 2021).

Researchers have found that compensation is among the most influential factors in an IT worker's decision to leave a position (Guha & Chakrabati, 2016). However, in-demand IT workers in K-12 organizations accept lower pay on average than their private industry counterparts (U.S. Bureau of Labor Statistics, 2021). Another important factor

when considering employee turnover and retention behavior is organizational commitment, or the level of an employee's psychological association or identification with the organization (Meyer et al., 1993). With many public service professions, including teaching, research has shown organizational commitment is highly associated with the decision to remain with an organization (Boughn & Lentini, 1999; Brookhart & Freeman, 1992; Brown, 1992). Numerous studies have focused on the immense problem of teacher turnover (Baker et al., 2022; Imran et al., 2017; McCluskey, 2022); however, none have focused on IT workers working within those same K-12 organizations.

Problem Statement

Employee retention among IT workers is a significant challenge facing organizations (Carayon et al., 2006; Coombs, 2009; Ladelsky & Catana, 2013). K-12 school systems are no exception, and, like other organizations, IT applications and platforms are essential to support instructional, financial, human resources, security, and numerous other operational activities. Researchers often cite compensation as among the most critical factors related to IT turnover intention (Gaylard et al., 2005; Newman et al., 2017; Singh & Loncar, 2010; Von Hagel & Miller, 2011). Increased competition for scarce IT workers has driven up compensation and other perks within private industry (Gartner, 2022; Perry, 2021). Statistics indicate compensation for IT positions within government organizations, including K-12 school systems, lags significantly behind private industry competition (U.S. Bureau of Labor Statistics, 2021), implying IT workers working within K-12 may judge compensation as less valuable.

In addition to compensation satisfaction, organizational commitment is another factor that may provide valuable insight into the K-12 IT worker employment decision-

making process. Meyer and Allen (1997) defined organizational commitment as a measure of an employee's identification, dedication, or psychological bond with the organization. Further, Meyer and Allen (1997) proposed that organizational commitment is comprised of three aspects: affective, continuance, and normative. Briefly, affective refers to the employee's emotional attachment to the organization, continuance refers to the employee's perceived potential economic or occupational losses, and normative refers to the employee's sense of moral obligation to remain with an organization.

Increasing retention rates is valuable to organizations as voluntary turnover is frequently expensive (Cascio, 1991; Mitrovska & Eftimov, 2016). While the exact cost of turnover varies between organizations and the specific position, Ghapanchi and Aurum (2011) reported the cost is between one and seven times the employee's annual salary. Turnover is accompanied by numerous adverse organizational effects, including delayed projects and budget overruns (Coombs, 2009; Mitrovska & Eftimov, 2016; Von Hagel & Miller, 2011). IT workers frequently possess specialized skills, making replacing them difficult and expensive (Coombs, 2009). While extensive research has focused on IT worker turnover and retention within the private IT industry (Ghapanchi & Aurum, 2011; Zylka & Fischbach, 2017), research focused on the voluntary turnover motivations of K-12 IT workers is non-existent.

Purpose

The purpose of this study was to investigate how compensation satisfaction and organizational commitment factor into the employment decision-making process for IT workers working within K-12 organizations in a metropolitan area in the Southeastern United States. Attracting and retaining sought-after IT workers is a significant issue in

many organizations, including K-12 school systems. A better understanding of these factors may lead to more effective employee recruitment and retention strategies, thereby increasing the effectiveness of IT in support of K-12 educational priorities and operational activities.

Research Questions

The research questions are designed to provide insight into the relationships between compensation satisfaction, organizational commitment, and the employee's intention to stay with the organization. An Internet-based survey instrument was used to gather the data needed to answer the research questions. Additionally, the collection of employee demographic data allowed for further comparative data analysis not explicitly detailed in the proposed research questions.

RQ 1 – Is compensation satisfaction of K-12 IT workers a significant predictor of the intention to stay employed with the school system?

RQ 2 – Is organizational commitment of K-12 IT workers a significant predictor of the intention to stay employed with the school system?

RQ 3 – Is there a relationship between compensation satisfaction and organizational commitment of K-12 IT workers?

RQ 4 – Is there a significant difference by duration of employment, work location, sex, or age on the measure of compensation satisfaction?

RQ 5 – Is there a significant difference by duration of employment, work location, sex, or age on the measure of organizational commitment?

RQ 6 – Is there a significant difference by duration of employment, work location, sex, or age on the measure of the intention to stay?

Significance of the Study

Given the immense cost and operational disruption, considerable research has focused on the issue of voluntary turnover among IT workers in the private sector (Ghapanchi & Aurum, 2011; Zylka & Fischbach, 2017). Some studies have focused on voluntary turnover or employee retention within the public sector (Coombs, 2009; Jung, 2010, 2014; Kim, 2012; Lee et al., 2018) or higher education (Banks, 2019; Sherman, 2014). Even after an extensive search with the assistance of an academic research librarian, no research concerning factors related to voluntary turnover or stay intention among IT workers within the K-12 environment has been located. K-12 IT workers are critical to school system operations, and the data imply these individuals may possess different value judgments regarding compensation and organizational commitment than their private sector counterparts (U.S. Bureau of Labor Statistics, 2021). This research contributed by filling this vital gap in the literature.

IT workers are essential to the operations of modern organizations, including school districts. The results of this study may help school district leaders understand their IT workforce better, develop strategies to decrease voluntary turnover rates, increase efficiency, and increase workforce satisfaction. This study may benefit other government or non-profit organizations facing similar IT staffing challenges. This research may highlight motivational or value differences between IT workers who choose public service over the private sector.

Within a K-12 environment, a productive, effective, and well-functioning IT department aims to provide stable and useful instructional technology and business operations support. A school system's IT department should focus on providing the

organization with the most value by directly supporting strategic educational and operational priorities. The research literature supports the notion that increasing employee retention increases organizational effectiveness and efficiency and reduces cost, thereby driving better outcomes. This study's findings could guide school district leaders to increase IT effectiveness and benefit operational and educational priorities. A K-12 school system exists to educate and develop the next generation of citizens, and the IT department is a crucial foundational element in delivering modern educational services.

Figure 1 represents the theoretical framework of the study. The proposed dependent variable, the intention to stay, reflects the participant's decision to remain with the K-12 organization rather than seek employment within another organization. This research does not focus on the actual behavior of staying, but the literature has indicated the intention to act is a reliable predictor of behavior (Ajzen, 1991; Lambert et al., 2001; Steel & Ovalle, 1984).

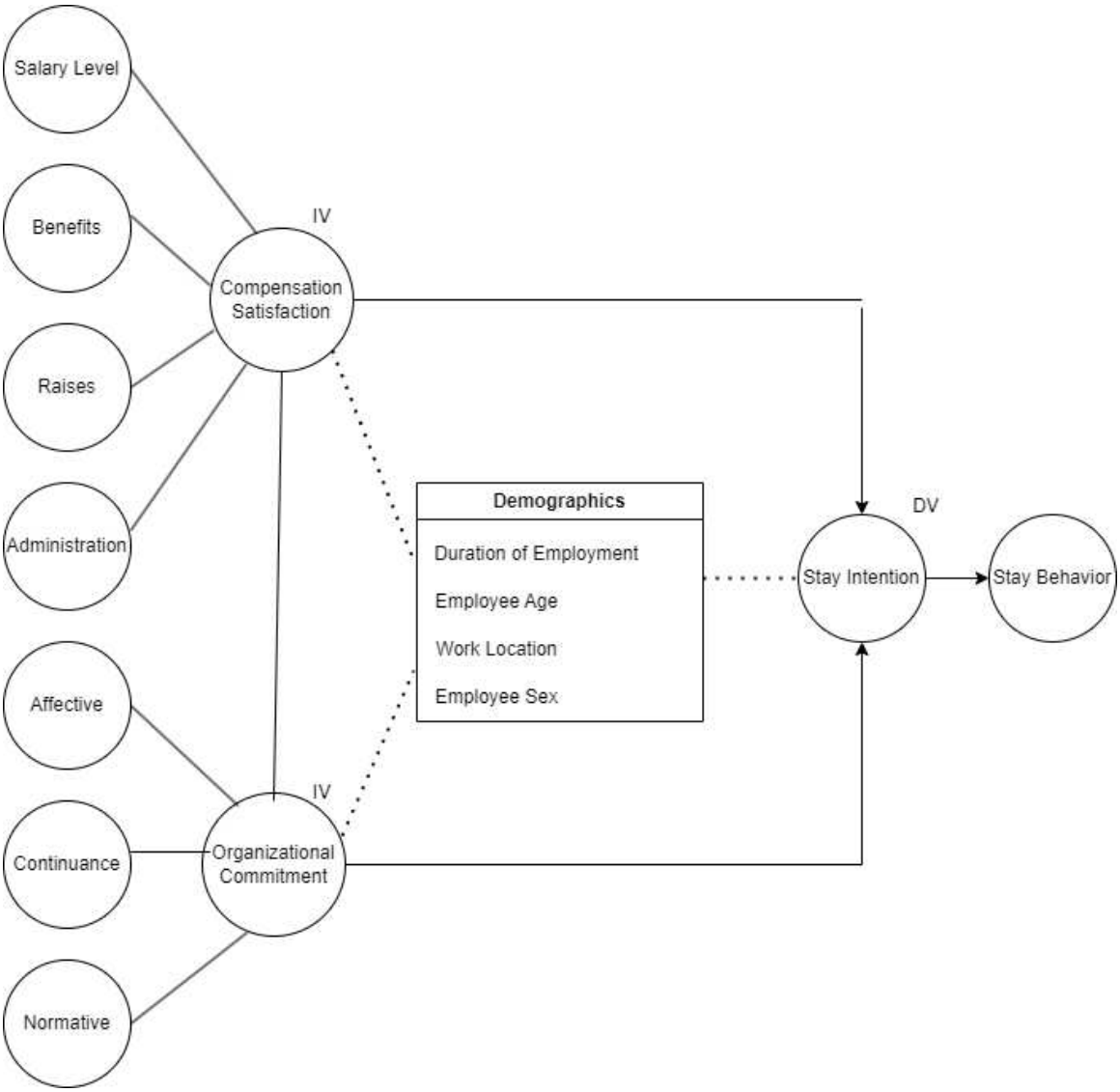
Satisfaction with compensation is one of the proposed independent variables. Heneman and Schwab (1985) defined compensation satisfaction as the employee feels the organization has treated them fairly. Heneman and Schwab proposed that compensation satisfaction is composed of four parts: salary level, benefits, raises, and pay administration. *Salary level* refers to the satisfaction with the hourly wage or salary. *Benefits* is a measure of satisfaction with non-salary aspects to compensation such as health insurance or retirement plans. *Raises* is a measure of the satisfaction with the increases in compensation. *Pay administration* refers to how compensation is managed within the organization; for example, the consistency of how pay raises are determined or

how the organization communicates with employees about pay issues.

Theoretical Framework

Figure 1

Concept Map



Several researchers have highlighted satisfaction with compensation as among the most critical factors related to IT employee retention and turnover (Guha & Chakrabarti, 2016; Gupta & Shaw, 2014; Steil et al., 2022; Thatcher et al., 2006; Von Hagel & Miller,

2011). Research indicates that IT turnover is exceptionally costly and disruptive to organizations (Atouba, 2018; Kochanski & Ledford, 2001), including K-12 and other government or non-profit organizations (Coombs, 2009). Even during economic downturns, IT talent remains scarce within the workforce, and salaries continue to rise (Gartner, 2022; Perry, 2021). However, government statistics indicate K-12 IT employees are, on average, paid below industry standards (U.S. Bureau of Labor Statistics, 2021). This dissonance between the literature and government data implies that K-12 IT workers may value compensation less than their private industry counterparts.

Researchers have found organizational commitment, the second proposed predictor variable, strongly correlates with stay intentions in some professions, including teaching, nursing, and social work (Boughn & Lentini, 1999; Brookhart & Freeman, 1992; Brown, 1992; Coombs, 2009). For example, Boughn and Lentini (1999) reported feelings of altruism and the desire to care for others are significant motivators for nurses, and working within a healthcare organization allows them to pursue those desires. Brown (1992) found teachers felt a moral obligation to society and a desire to help others through teaching. Within a healthcare setting, Coombs (2009) discovered IT workers, even though not healthcare workers themselves, felt their work to support patient care was of greater value than a role in the private sector. Coombs (2009) also reported IT workers with higher organizational commitment were likelier to stay.

Diving deeper into the concept of organizational commitment, Meyer and Allen (1997) proposed a framework comprised of three dimensions: affective, continuance, and normative. The affective dimension of organizational commitment relates to the employee's emotional connection to the organization and the work (Meyer & Allen,

1997). One may identify with the organization's mission and genuinely desire to contribute. The second dimension, continuance, reflects the perceived loss that would occur if the individual left the organization (Meyer & Allen, 1997). For example, an employee may fear the loss of friendships with co-workers or seniority within the organization upon departure. Finally, normative describes the sense of obligation to the organization (Meyer & Allen, 1997). The normative dimension reflects the sense that staying with an organization is the morally right course of action, perhaps because of the organization's investment in the employee or perhaps a sense of loyalty. In this study, each dimension will be recorded separately and combined into the overall employee organizational commitment measure.

In addition to the proposed predictive relationship with the dependent variable, intention to stay, a correlation between the two proposed independent variables, compensation satisfaction, and organizational commitment, has been examined extensively in various studies (Braje & Samarđija, 2016; Shinnar, 1998; Uzonwanne & Nwanzu, 2017; Wadhawan et al., 2017; Wang et al., 2010). Although there is debate on the exact relationship, researchers generally agree a co-relationship exists, and both compensation satisfaction and organizational commitment play a role in employment decisions (Luna-Acrocas et al., 2020; Wadhawan et al., 2017).

Turning to the K-12 IT worker demographic data, researchers have found that employees of different generations may possess different levels of organizational commitment. For example, in a study of 75 certified public accountants, George and Wallio (2017) found that employees belonging to the Millennial generation (born between 1982 and 2000) demonstrated less organizational commitment than co-workers

from other generations. Approximately 75% of the United States IT workforce is from the Millennial generation (U.S. Bureau of Labor Statistics, 2021). Therefore, employee age may provide additional insight into K-12 IT worker turnover intentions.

In the United States, data indicate approximately 75% of IT workers are male (U.S. Bureau of Labor Statistics, 2021). Conversely, the professions of teaching, social work, and nursing, in which research has indicated organizational commitment plays a significant role in the intention to stay (Boughn & Lentini, 1999; Brookhart & Freeman, 1992; Brown, 1992), are female-dominated (U.S. Bureau of Labor Statistics, 2021). Consequently, examining K-12 IT employees by sex may provide valuable insight.

Finally, in addition to employee age and sex, the K-12 IT worker's duration of employment and primary work location may provide additional insight. One might logically expect those employees who have been with the school district longer may exhibit higher levels of organizational commitment than those who have recently joined. Further, those K-12 IT workers who work more closely with educators and students in school buildings, in an active teaching and learning environment, may possess different motivations than those who work in a central office with limited or no student interaction. Gathering participant demographic data will aid in exploring these aspects of K-12 IT worker motivations.

Researchers have analyzed the numerous negative impacts of dysfunctional voluntary turnover on organizations, including reduced performance, reduced efficiency, and financial consequences (Heavey et al., 2013; Hom et al., 2017; Park & Shaw, 2013). Research has even shown that turnover can cause more turnover, exacerbating the issue (Felps et al., 2009; Porter & Rigby, 2021). Therefore, throughout the past century,

substantial efforts have focused on explaining and understanding the voluntary turnover phenomena (Hom et al., 2017).

Early voluntary turnover theories were relatively simple and focused only on job dissatisfaction and the ease of turnover (Mobley, 1977; Price, 1977). Later, more complex theories proposed additional factors, including various internal and external motivators (Mobley et al., 1979; Price & Mueller, 1981; Steers & Mowday, 1981). In a break from previous research, Lee and Mitchell (1994) developed the unfolding model of voluntary turnover, which instead focused on four distinct psychological paths. Since proposed, the unfolding model has been expanded and improved (Donnelley & Quirin, 2006; Lee et al., 1999; Mitchell & Lee, 2001; Morrell et al., 2008). Despite the wide variation of turnover theories, there is consensus that turnover intention is preceded by antecedents (Hom et al., 2012). Therefore, studying these antecedents and motivators may provide valuable information concerning the voluntary turnover phenomenon.

Summary of Methodology

The participants of this study were an accessible population of full-time IT workers employed by a sample of six K-12 public school systems in the selected metropolitan area. These participants have job titles, including system administrator, network administrator, technical support specialist, software developer, information security specialist, enterprise architect, and other IT roles. Approximately 1,100 IT workers were employed by the county-level school systems in the selected metropolitan area. The six school systems that agreed to participate in the research employed approximately 600 IT workers.

Institutional Review Board (IRB) approval was obtained from Valdosta State

University and the six public school systems. A copy of the Valdosta State University IRB exemption report is included in Appendix A. Data were collected via an anonymous Internet survey using the Qualtrics platform. The survey instrument was a combination of three established instruments. The first is the Pay Satisfaction Questionnaire developed by Heneman and Schwab (1985). The second is Meyer and Allen's (1997) revised Organizational Commitment Questionnaire. The third is the Intention to Stay instrument developed by Armstrong-Stassen and Ursel (2009). In addition, demographic information, including duration of employment, work location, sex, and age were gathered. No personally identifiable information was collected from the participants. A copy of the survey instrument is included in Appendix B.

The study evaluated the relationships between compensation satisfaction, organizational commitment, and the employee's intention to stay with the organization. Logistic regression was employed for RQs1-2 to explore the relationship between the dependent variable, the intention to stay, with the two independent variables, compensation satisfaction and organizational commitment. In addition, correlation methods were used for RQ3 to explore the co-relationship between the two independent variables, compensation satisfaction and organizational commitment. Non-parametric ANOVA was used for RQs4-6 to explore the variance in compensation satisfaction, organizational commitment, and stay intention based on the employee's duration of employment, work location, sex, and age.

Assumptions, Limitations, and Delimitations

The study population was scoped to IT workers employed by school districts within a single metropolitan area, thereby introducing several limitations to the study.

About half of the school systems within the selected region are among the 100 largest in the United States. School districts serving more students necessarily employ more IT workers than those serving fewer students, and the composition of these workers differ. In more complex technical environments, the division of work necessitates specialization within particular technical subfields, requiring different skills to manage. However, technical generalists are more practical in meeting operational requirements within a smaller environment.

IT workers with specialized skills and knowledge demand higher compensation than their generalist counterparts. Further, specialized IT workers generally have more work experience, education, and IT certifications, making them more valuable in the marketplace. Therefore, the composition of the IT worker population differ between large and small organizations (including K-12), so this study's findings may not apply to smaller K-12 institutions.

This study was also geographically bound to a particular area, introducing several possible confounding factors. For example, one of the counties in question is among the most racially diverse communities in the United States. One would expect local diversity to be reflected in the workforce, including IT workers. People from varied backgrounds may have different values calculated in their employment decisions.

Additionally, the issue of urban versus rural communities is a factor. An urban environment may attract a certain population, while a rural one attracts another. Work opportunities vary from area to area; while many major technology companies maintain campuses in urban areas, fewer competing technology job opportunities are available in rural areas. Further, one area's technology job market may differ from another. The

geographic location is less important today because of the possibility of teleworking, but it is still a factor one should consider.

The topics of compensation and leaving an organization can be sensitive, and the validity of the study hinges on the participants' honesty in answering the questions. The use of an anonymous survey was intended to reduce participant concerns and increase confidence in the results.

Summary

Modern K-12 organizations rely on technology to support and enhance instructional and operational activities. Technology support requires special expertise and knowledge, so K-12 organizations necessarily face the challenge of hiring and retaining sought-after IT workers. While the literature indicates many factors may play a role in the decision to stay or leave organizations, an examination of organizational commitment and satisfaction with compensation could provide valuable insight into the motivations of K-12 IT workers. Understanding these factors could help K-12 leaders improve their efforts to attract and retain IT specialists to better support their organizations.

Definition of Terms

Compensation Satisfaction: Implies that workers feel the organization has treated them fairly in terms of compensation; comprised of four dimensions: pay level satisfaction, pay raises, benefit level, and pay structure and administration (Heneman & Schwab, 1985).

Information Technology Worker: Employees whose primary role within the organization focuses on supporting, maintaining, or developing information technology infrastructure or software. This includes job titles such as system administrator, network

administrator, desktop support, software developer, enterprise architect, and information security specialist (U.S. Bureau of Labor Statistics, 2018).

Organizational Commitment: A psychological commitment to an organization based on identification with the organization's mission, work, or values; related to the decision to stay or leave employment within that organization (Keskes, 2014).

Stay Intention: An individual's intention to remain employed within an organization (Kim et al., 1996).

Turnover: The cessation of employment within an organization (Mobley, 1982).

Turnover Intention: An individual's intention to leave employment within an organization (Mobley, 1977).

Voluntary Turnover: Indicates the individuals resigned from their employment with an organization of their own volition (Shaw et al., 1998).

Chapter II

LITERATURE REVIEW

Literature Introduction and Overview

Researchers have extensively examined the causes and consequences of voluntary turnover. The resulting literature is expansive and spans various disciplines, including Human Resource Management (Gupta & Shaw, 2014), Psychology (Burrows et al., 2022), and specific industries, including Healthcare (Hebles et al., 2022; Kim & Kang, 2015; Neves et al., 2018), Education (Baker et al., 2022; Colson & Satterfield, 2018; DeMatthews et al., 2022; Güllü et al., 2020; Imran et al., 2017; McCluskey, 2022; Ryu & Jinnai, 2021), and Technology (Guha & Chakrabarti, 2014; Horton, 2020; Idell, 2020; Idell et al., 2021; Major et al., 2013; Steil et al., 2022). Through decades of investigation, researchers have developed, debated, and improved various competing theories and models of voluntary turnover (Gupta et al., 2022). While employee retention is a serious issue in many industries, the negative consequences of dysfunctional voluntary turnover are especially evident in the IT profession (Coombs, 2009; Mitrovska & Eftimov, 2016).

This review will first cover research concerning the costs and adverse consequences of voluntary turnover in general and specifically within IT, laying the groundwork for the importance of the subject. The review then discusses some difficulties and proposed strategies for measuring the organizational costs of voluntary

turnover. Then, the review turns toward the proposed theoretical explanations of voluntary turnover. Moving from the discussion of *how* turnover occurs, the review examines research on *why* turnover occurs, including proposed antecedents and predictors. Switching from focusing on voluntary turnover, research examining the intention to stay with an organization follows. The review then turns to research on IT workers in general and within K-12. Finally, the two central factors in this study are covered in detail: compensation satisfaction and organizational commitment.

Costs and Adverse Consequences of Voluntary Turnover

Researchers have discovered a negative linear relationship between turnover and organizational performance (Shaw, 2011). Examining the issue from a high level, Park and Shaw (2013) constructed a meta-analysis of turnover research from over 300,000 organizations or units from many industries, including healthcare, retail, food service, education, construction, and numerous other sectors. It is crucial to note that the most appropriate measures of organizational performance vary between organizations and industries; for example, a reasonable performance measure within food service may be food waste; a steel company may measure scrap rate; SAT scores could measure a school's performance; retail may be most concerned with customer satisfaction. Park and Shaw (2013) combined the measures from the studies of these varied industries, and their meta-analysis supported the hypothesis of a negative linear relationship between turnover and performance. In a similar meta-analysis of 82 studies, Heavey et al. (2013) found that turnover is negatively associated with several organizational performance measures, including customer satisfaction, profit margin, and production efficiency.

Another adverse effect of voluntary turnover appearing in the literature is

operational disruption. Mitra et al. (1992) found that organizations with lower turnover rates operate more efficiently than those with higher turnover rates. Other researchers have found that employee retention rates are highly correlated with increased productivity and higher profits across several industries (Heskett et al., 2008). While profitability is not a concern for K-12 or other public organizations, it is a valid measure of effectiveness in private industry and a reflection of organizational health. If an organization does not receive sufficient returns on its investments, including employees, its survival is at risk (Singh & Loncar, 2010).

One can measure the cost of voluntary turnover to the organization in several ways; one method frequently mentioned in the literature is the quantitative cost measured in terms of the former employee's salary. In most cases, researchers reported the expense to be between one and three times the employee's salary (Bliss, 2001; Byrnes, 1984; Idell et al., 2021; Von Hagel & Miller, 2011). On the higher end of the scale, Kochanski and Ledford (2001) reported the cost lies between one and seven times an employee's annual salary for technical workers. Especially in the service sector, employee compensation and benefits can account for 70-80% of the operating budget (Singh & Loncar, 2010). Similarly, K-12 school systems are service providers, and compensation is frequently the most expensive line item in the budget (Gwinnett County Public Schools, 2022a). Reducing voluntary turnover can result in significant financial benefits for K-12 organizations.

Researchers have intensely studied voluntary turnover because of the immense costs and upheaval it causes within organizations (Ghapanchi & Aurum, 2011; Zylka & Fischbach, 2017). Despite this intense interest, Kochanski and Ledford (2001) reported

that many organizations have difficulty accurately measuring the financial impact of turnover because the costs are spread among several budgetary silos, and the information is difficult to consolidate into a single figure. For example, a human resources department may calculate the cost of turnover as the cost of finding a suitable replacement. In contrast, the financial management department may concentrate on the cost of paying unused vacation leave to the departing employee. From another perspective, the departing employee's department is focused on the cost of training a replacement and lost productivity. Because of the difficulty in estimating the total cost of turnover and the resulting highly variable "best guess" estimates, Kochanski and Ledford (2001) reported that organizations frequently do not rely upon them. However, Kochanski and Ledford (2001) contended that organizations must strive to know the actual total cost of turnover to help determine how much the organization should invest in employee retention.

Calculating Turnover Costs: An Accounting Methods Approach

To address the challenge of calculating turnover costs and eliminate "best guess" approaches, Cascio (1991) proposed an accounting-based model that attempted to consolidate the varied expenses into a grand total. Since initially proposed, Cascio's model has been updated and amended several times. With a more reliable, transparent, and defendable total cost, Cascio's model allows managers to analyze the financial consequences of turnover and develop cost-appropriate mitigation strategies to address the issue. There is broad agreement that Cascio's turnover cost model is the most comprehensive contribution to the literature to address this issue and has been adapted in many subsequent studies (Hinkin & Tracey, 2000; Mckinney et al., 2007; Tziner & Birati, 1996).

Within Cascio's (1991) model, there are three major categories of expenses: separation, replacement, and training costs. The first category, separation costs, includes severance pay, exit interviews, returning equipment, and other offboarding costs. The second category, replacement costs, includes advertising the position, reviewing applications, interviews, reference checks, credit checks, pre-employment screening, and inducements to lure the candidate, such as paying for moving expenses. Finally, training costs include formal training, informal training, and informational literature that the organization provides to the new employee (Cascio, 1991).

While turnover researchers frequently cite Cascio's (1991) model, Tziner and Birati (1996) contributed to the discussion by pointing out several shortcomings and proposing an amended model. Tziner and Birati wrote that Cascio's model does not address some turnover consequences, including decreased performance among remaining workers, lost customers, and overtime pay to remaining workers to compensate for the labor shortfall. It is important to note that Cascio's original model and Tzainer and Biranti's updated model primarily address quantitative or financial costs, not qualitative ones.

Tziner and Birati (1996) also noted that not all turnover is harmful, and some turnover benefits the organization. For example, the benefits of releasing a poor performer usually outweigh the costs. Tziner and Birati (1996) labeled the turnover of ineffective employees as "functional turnover," and their model excluded this activity. Conversely, Tziner and Birati (1996) focused on "dysfunctional turnover," or the turnover of critical, high-performing employees, negatively affecting the organization.

Turnover Begets Turnover

Turnover negatively affects employee morale and increases stress in the workforce. For instance, Fasbender et al. (2019) found that turnover within a healthcare setting created pressure on the remaining employees to work harder and longer hours, which increased errors, stress, and decreased morale. Increased stress in the workforce then drives increased turnover in response to the stress threat (Apostel et al., 2018), creating a vicious cycle.

This notion of turnover causing additional turnover within an organization is supported more broadly in the literature. In a study of food service workers, Krackhardt and Porter (1986) found that turnover did not occur randomly across the population; instead, the researchers detected distinct cluster patterns. Three different analytic techniques confirmed these findings, which the researchers termed a "snowball effect" (Krackhardt & Porter, 1986). More recently, researchers have instead referred to this phenomenon as "turnover contagion" to reflect better how turnover can pervasively travel through an organization like a virus, spreading from worker to worker (Porter & Rigby, 2021).

At its core, Felps et al. (2009) contended that the turnover contagion process begins "when an employee's coworker engages in behaviors antecedent to leaving a job, and these activities sometimes spill over onto others in such a way that the affects others are more likely to leave" (p. 546). Further, Felps et al. (2009) proposed that the contagion process depended on people comparing themselves to one another, a phenomenon strongly supported by social comparison psychological research (Kruglanski & Mayseless, 1990). Therefore, those who frequently interact with or are emotionally close

to the employee turning over are most susceptible (Porter & Rigby, 2021). This proposed contagion process causes voluntary turnover to occur in clumps, usually among workers of the same class, position, working group, team, or social network (Felps et al., 2009).

Turnover Theories

Various competing theories of the voluntary turnover process have been proposed, debated, and improved over the past hundred years (Gupta et al., 2022; Hom et al., 2017). It is not the purpose of this study to replicate, test, confirm, or disprove any of voluntary turnover theories; however, these theories nevertheless provide an informative framework for contemplating and discussing the voluntary turnover phenomena. What follows is a brief chronologically-ordered review of the highlights and most significant turnover research.

The Formative Years

Formative studies from the early 1900s focused on turnover costs, why employees leave, and proposed retention strategies (Douglas, 1918; Eberle, 1919). A particularly illustrative example of research from this period is Fisher (1917), which focused on turnover within manufacturing. Fisher, a member of the Detroit Executives Club, lamented the lack of understanding of the costs to "break in a new man" within a plant, surmising that the cost is conservatively at least $40 (Fisher, 1917). While pointing out that turnover costs are difficult to calculate precisely, Fisher (1917) asserted they are significant and urged his colleagues to address the issue to increase manufacturing efficiency. In an attempt to address the issue, Fisher (1917) proposed one of the earliest turnover reduction proposals, which included strategies such as learning the actual cost of turnover through careful record keeping, hiring the right person for the position, paying

adequately, and providing sufficient support for the workers.

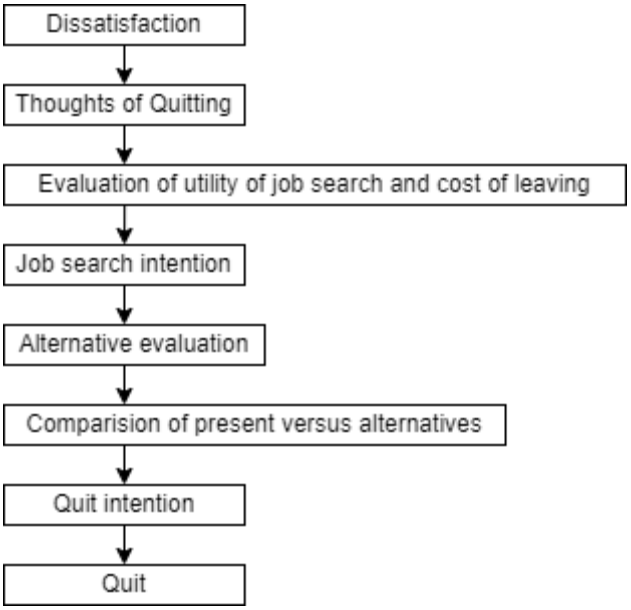
Early Theoretical Research

March and Simon (1958) proposed one of the earliest voluntary turnover models in their book, *Organizations*. March and Simon's Organizational Equilibrium Model proposed only two factors, the perceived ease of turnover and the target job's desirability. Despite the theory's relative simplicity, Hom et al. (2017) argued it was a "paradigmatic shift (in the Thomas Kuhn sense) away from the prior stream of primarily atheoretical research" (p. 532) and represented a significant leap forward.

Two decades later, a flurry of voluntary turnover research was built upon March and Simon's (1958) work. Researchers, including Price (1977), adapted job satisfaction and perceived job opportunities into their turnover model. In another seminal study, Mobley (1977) proposed a linear "linkage" model of how job dissatisfaction leads to voluntary turnover, starting with dissatisfaction and culminating with actual turnover (see Figure 2):

Figure 2

Mobley's Linkage Model (adapted from Mobley, 1977)



In distinction with prior turnover models, both Price (1977) and Mobley (1977) included nonwork factors and values within their research, such as work-life balance and family attachments (Hom et al., 2017). Following up a couple of years later, Mobley et al. (1979) developed a more in-depth *Content* model, introducing numerous distal antecedents leading to voluntary turnover. Much research followed, empirically testing the turnover models proposed by Mobley and Price, with researchers attempting to comprehensively model and maximally explain the voluntary turnover process (Price & Mueller, 1981; Steers & Mowday, 1981). For example, Steers and Mowday's (1981) proposed model included additional antecedents (job performance, job attitudes) and moderators (job search success, other nonwork factors) not previously considered. However, it is essential to note that the basis for the Mobley and Price models and their derivatives can be traced back to the March and Simons (1958) Organizational

Equilibrium Model proposal, with job dissatisfaction as the most critical factor in the voluntary turnover process, leading employees to compare alternative job opportunities. With incremental improvements, the Mobley and Price models dominated the voluntary turnover conversation for many years (Hom et al., 2017).

The Unfolding Model

Lee and Mitchell's (1994) unfolding model proposed a significant departure from the Mobley and Price models that dominated the conversation until then. Lee and Mitchell (1994) contended that "March and Simons's (1958) landmark chapter… may have overly influenced the subsequent conceptual models of employee turnover" (p. 70). Instead of primarily focusing on job dissatisfaction, Lee and Mitchell (1994) proposed a psychological process that most frequently begins with an event, which the model defines as a "shock." According to Lee and Mitchell (1994), a shock is "a very distinguishable event that jars the employee toward deliberate judgments about their jobs and, perhaps, to voluntarily quit their job" (p. 60). A shock can initiate three of four distinct process paths via which the employee deliberates the implications of turning over (Lee & Mitchell, 1994).

The first path proposed by Lee and Mitchell (1994) produces an automatic and immediate turnover requiring minimal mental deliberation because the employee has precalculated the decision. The researchers referred to this precalculated decision as a "script" (Lee & Mitchell, 1994). The shock that initiates the first path can come in many forms. For example, if the employee won a lottery jackpot. As another example, an employee could become pregnant and decide to become a stay-at-home parent. In any case, the decision to turnover is relatively quick, with little to no consideration given to

the current position satisfaction or job alternatives (Lee & Mitchell, 1994).

Unlike the first path, the second path involves job satisfaction evaluation and more mental deliberation (Lee & Mitchell, 1994). For example, an unfair job evaluation (shock) could lead an employee to reevaluate their commitment to the organization, leading to a "push" decision to quit without another position in mind (Lee & Mitchell, 1994). Shocks involved in the second path could be the same as shocks in the first path but without the prepared decision script (Lee & Mitchell, 1994). For example, in contrast with the planned pregnancy scenario from the first path, an unexpected pregnancy could cause an employee to traverse the second path (Lee & Mitchell, 1994).

The third path is similar to the second path but involves a specific job alternative in mind (Lee & Mitchell, 1994). As with the first and two paths, a shock occurs, and the employee evaluates the situation within a decision frame (Lee & Mitchell, 1994). Proceeding down the third path could include sending applications to other companies; however, a standing alternative job offer may already be in place when talent competition is high, therefore not even requiring a formal application process. Another example of a shock that could initiate the third path is an unsolicited job offer (Lee & Mitchell, 1994). In the context of this third path, it is essential to note that the employee may generally be satisfied with the organization. Still, the prospects of the new organization may outweigh that value (Lee & Mitchell, 1994). Lee and Mitchell (1994) describe the third path as considerably more extensive regarding mental deliberations than the first two paths.

The fourth and final path that Lee and Mitchell (1994) proposed does not include a shock or a singular initiating event. Instead, the fourth path results from an ongoing and gradual reassessment process via which employees reassess their organizational

commitment (Lee & Mitchell, 1994). This path has no discernable upheaval or shock, and the organization and position are relatively stable. Lee and Mitchell (1994) assert that this "reassessment occurs more routinely, casually, or even randomly" (p. 68). The fourth path then forks into two subpaths. Lee and Mitchell (1994) proposed that most follow the first subpath, which is very similar to Mobley's (1977) linear progression of job searching, evaluation, and so forth. However, a minority follows the second subpath, in which the employee simply quits without a job search (Lee & Mitchell, 1994) (see Table 1).

Table 1

Unfolding Model Paths (Adapted from Lee & Mitchell, 1994)

Pathway	Shock	Script	Alternative Job
1	Yes	Yes	No
2	Yes	No	No
3	Yes	No	Yes
4a	No	No	Yes
4b	No	No	No

Lee and Mitchell's (1994) unfolding model of voluntary employee turnover is among the most prominent theories in the literature today (Hom et al., 2017). In contrast to the relatively static and fixed single turnover process proposed by Mobley (1977), the unfolding model dynamically considers the turnover process in the context of four different paths that vary (Lee & Mitchell, 1994). The unfolding model also breaks from the previous dominating theories based primarily on job dissatisfaction and alternatives (Lee & Mitchell, 1994).

Unfolding Model Updates and Extensions

Since initially proposed, the unfolding model has been improved, extended, and replicated (Donnelley & Quirin, 2006; Lee et al., 1996, 1999; Mitchell & Lee, 2001; Morrell et al., 2008). For example, in a study involving 229 former employees of public accounting firms, Lee et al. (1999) tested a refinement of the unfolding model. One significant proposed change is that "scripts" can exist within paths other than only the first (Lee et al., 1999). Additionally, Lee et al. (1999) proposed that unsolicited job offers can exist in multiple paths, not just the third. With these and other changes and extensions to the unfolding model, Lee et al. (1999) classified 92.6 percent of the 229 turnovers into one of the four proposed voluntary turnover paths.

Job Embeddedness

Considering the literature as a whole, the majority of voluntary turnover research and resulting theoretical discussion focused on why people leave rather than why they stay with an organization. To illustrate this point, March and Simon's (1958) seminal Organizational Equilibrium model and its derivatives, including Price (1977) and Mobley (1977), only addressed the turnover process, not the decision to stay. Even with the powerful paradigm shift introduced by Lee and Mitchell's (1994) unfolding model, the primary focus was still explaining turnover while essentially ignoring employees who stayed with an organization. To address this shortcoming, Mitchell et al. (2001) extended the unfolding model with the concept of job embeddedness, which "reflect[s] the totality of forces that constrain people from leaving their current employment" (p. 1115).

Mitchell et al. (2001) proposed three central aspects of job embeddedness: links, fit, and sacrifice. Links are connections between the employee and people or institutions.

These “strands” (Mitchell et al., 2001, p. 1104) can be a combination of formal, informal, professional, or personal. Fit refers to an employee’s “compatibility or comfort” (Mitchell et al., 2001, p. 1104) with their position, organization, and community. For example, an employee who prefers to live in a rural environment may have less “fit” with a company in a dense urban area. Finally, sacrifice reflects the cost associated with leaving an organization. For example, an employee may feel a loss associated with losing connections with work colleagues or perks like stock options (Mitchell et al., 2001) (see Table 2).

Table 2

Job Embeddedness Factors (adapted from Mitchell et al., 2001)

Factors	Organization	Community
Links	Employee’s attachment to the organization, such as length of employment, pay, or retirement plans	Employee’s attachment to the community, such as friends, religious organizations, or civic associations
Fit	Compatibility of employee’s personal attributes to position	Compatibility of employee with environment, community, local amenities
Sacrifice	Loss of stock options, seniority, and relationships with coworkers	Loss of severing ties with friends and community

Several researchers have conducted follow-up studies to test and expand Mitchell et al.’s (2001) job embeddedness proposal (Hom et al., 2017). For example, Holtom and Inderrieden (2006) found that job embeddedness was significantly and negatively associated with voluntary turnover. In another study, Lee et al. (2004) split the construct of job embeddedness into on-the-job and off-the-job embeddedness. They found that both

were negatively associated with voluntary turnover. In another study, instead of espousing the merits of job embeddedness on voluntary turnover, Allen et al. (2016) explored another path. They proposed a "dark side" where staying within an abusive organization introduced harmful effects on the employee, including feelings of insecurity and sleep deprivation.

Boomerang Turnover

In a substantial contribution to the discussion surrounding the unfolding model, rather than considering turnover as a terminal end state, Shipp et al. (2014) extended the model to account for "boomerang" employees. Boomerang employees quit but later return to the organization (Shipp et al., 2014). In contrast, Shipp et al. (2014) defined "alumni" as employees who quit and never return. Shipp et al. (2014) found that Boomerangs were likely to have experienced personal shocks and were more common in the first turnover path that Lee and Mitchell (1994) described than Alumni employees. In contrast, Shipp et al. (2014) found that Alumni employees were more likely to encounter negative workplace shocks. Another difference, unexpectedly, is that employees who depart earlier in their tenure are more likely to return (Shipp et al., 2014). An important implication of Shipp et al.'s (2014) work is that an organization should strongly consider that an employee may return; therefore, the organization should manage the turnover process with that possibility in mind.

Integrating How and Why

In their original unfolding model, Lee and Mitchell (1994) primarily focused on *how* people turnover, not *why*. In response to this and similar limitations in the literature, Maertz and Campion (2004) proposed a model that contained four turnover decision

types coupled with eight categories of motivational forces, thereby integrating the processes (hows) and motivations (whys) for turning over. Maertz and Campion (2004) admitted that their four proposed turnover decision types are not as detailed as the five paths proposed by Lee and Mitchell (1994); however, Maertz and Campion asserted that simple yes/no questions can ascertain participant decision types and are easier to determine, are less subjective, and more reliable. Further, Maertz and Campion (2004) theorized that particular motivations should be associated with certain turnover decision types. Therefore, employees executing a decision type should have consistently high or low levels of the various motivational forces (Maertz & Campion, 2004).

According to Maertz and Campion (2004), the four decision process types are impulsive, comparison, preplanned, and conditional. Impulsive quitters do not have any advanced plan and no job prospects. Comparison quitters compare job alternatives and have a job offer in hand. Preplanned quitters decide to quit at a specific future time and may or may not have a job offer. Finally, conditional quitters plan to quit if a particular event occurs and may or may not have an alternative job offer (Maertz & Campion, 2004) (see Table 3).

Table 3

Turnover Decision Process Types (adapted from Maertz & Campion, 2004)

Decision Process Types	Description	Advanced Planning	Alternative Job Offer
Impulsive	Caused by insufficient organizational attachment; short decision process	No	No
Comparison	Leaving for another job offer	No	Yes
Preplanned	Leaving a position at a predetermined time or based on an expected event	Extensive plan made well in advance	Maybe
Conditional	Leaving based on if an uncertain event occurs	Yes	Maybe

On the other side of the proposed framework, Maertz and Campion (2004) described eight motivational forces (or "why" factors) within their framework: affective, contractual, constituent, alternative, calculative, normative, behavioral, and moral. Affective forces concern the employee's attachment to membership in their organization. Contractual forces concern perceived obligations to the organization or psychological contract. Constituent forces are related to a commitment to the people within the organization. Alternative forces reflect the employee's belief they can obtain another position. Calculative forces are associated with the expectation of value attainment from the organization. Normative forces are pressures to stay or leave an organization based on expectations from family or friends. Behavioral forces reflect the psychological costs of

quitting. Finally, moral forces are related to internalized values (Maertz & Campion, 2004) (see Table 4).

Table 4

Turnover Motivational Forces (adapted from Maertz & Campion, 2004)

Motivational Force	Positive Forces	Negative Forces
Affective	Employee associates the organization with positive emotions	Employee associates the organization with negative emotions
Contractual	Employee desires to fulfill obligations to organization	Employee wishes to dissolve contract
Constituent	Employee wishes to maintain positive relationships with people within the organization	Employee wishes to sever ties with people within the organization
Alternative	No or few job alternative exist	Numerous attractive job alternatives exist
Calculative	Expectation of a significant raise or promotion	Expectation of pay cut
Normative	Family supports continuing employment	Family does not support continuing employment
Behavioral	The psychological cost of quitting is perceived to be relatively high	The psychological cost of quitting is perceived to be relatively low
Moral	Employee's moral code indicates quitting is bad	Employee's moral code values new opportunities or experiences

These eight motivational forces can positively or negatively influence turnover decisions and processes (Maertz & Campion, 2004). For example, a family's desire for continued employment is a positive force described by the framework's normative forces. Conversely, if the employee's family wishes for the employee to turnover, that would be a negative motivation (Maertz & Campion, 2004). As another example, if there are

plentiful job openings, that could be a negative force within the framework's alternative motivations. Conversely, few job openings could positively influence the employee to remain with the organization (Maertz & Campion, 2004).

Maertz and Campion (2004) conducted interviews with and surveyed 159 participants to test their framework. The participants, selected through a convenience sample, were employed at various organization types (Maertz & Campion, 2004). The resulting data largely supported the proposed framework, "indicating that different turnover motive forces are systematically related to the four decision process types" (p. 578). Overall, Maertz and Campion (2004) demonstrated it is possible to integrate the turnover process and motivations into a unified theoretical framework rather than considered separately. The researchers called for further study, including longitudinal studies, to expand holistic understanding (Maertz & Campion, 2004).

Overall, the persistent and intense interest in voluntary turnover over the past century demonstrates its ongoing importance to organizations (Griffeth et al., 2000; Hom et al., 2017; Lee et al., 2017; March & Simon, 1958). The high cost of voluntary turnover (Bliss, 2001; Byrnes, 1984; Idell et al., 2021; Von Hagel & Miller, 2011), especially within IT (Kochanski & Ledford, 2001), necessitates that organizations take steps to reduce dysfunctional or voluntary turnover to increase organizational effectiveness (Heavey et al., 2013), and ultimately, to ensure organizational viability (Singh & Loncar, 2010).

Turnover Antecedents and Criterion Space

Despite the diversity of studies and models, one commonality is the vast majority of researchers recognized that various antecedents precede an intention to turnover or quit

(Hom et al., 2012). To provide more context, some examples of these antecedents from the literature include individual or environmental factors such as job satisfaction, compensation, organizational commitment, and work environment (Kim, 2012; Steil et al., 2022). Through decades of research, numerous studies have focused on and tested specific turnover predictors, providing narrow, siloed insight into voluntary turnover antecedents. Further fracturing the literature, most turnover studies were conducted within a single industry or occupation, with healthcare being the most common (Bolt et al., 2022).

In response to these primary studies' fractured—yet valuable—insight, several researchers compiled meta-analyses, including early contributions from Cotton and Tuttle (1986), who highlighted 25 previously identified turnover antecedents. In a landmark study focusing on studies from the 1990s, Griffeth et al. (2000) expanded the analysis, including 45 predictors from 42 studies. More recently, Rubenstein et al. (2017) presented an even more comprehensive meta-analysis that included 57 predictors. Within the studies Rubenstein et al. (2017) referenced in their meta-analysis, several significant predictors bubbled to the surface, including employee age, time at the organization, and perception of job security.

In summation, the literature strongly supports the notion that several antecedents are involved in the “elusive behavior” (Rubenstein et al., 2017, p. 24) of voluntary turnover. These antecedents feed into a “criterion space” (Hom et al., 2012, p. 832) that involves a decision point to turnover. Hence, examining antecedents is valuable to increase understanding of voluntary turnover phenomena.

Link Between Intention and Behavior

It is essential to note that turnover intention is not the same as the actual behavior of turning over or quitting a position; while the intention and action are logically linked, they are two distinct phenomena. Within the literature, there is disagreement about the strength of the link between turnover intention and the actual act of turning over (Hom et al., 2012). Some research has indicated that the relationship between the intent to turnover and the behavior was not supported (Allen et al., 2005). However, most research supported that the intention to leave is associated with turnover behavior (Lambert et al., 2001; Steel & Ovalle, 1984; Sun & Wang, 2017). Within turnover research, "turnover intentions have served as a surrogate or proxy for turnover when quit data are unavailable" (Hom et al., 2017, p. 533).

Considering human behavior more broadly, using the intent to act to predict a particular behavior is strongly supported by psychological research, including the Theory of Planned Behavior (TPB) developed by Ajzen (1991). The TPB is an extension of earlier work by Ajzen within the field of psychology, the Theory of Reasoned Action. The TPB proposes that individuals believe they are in a position to act and possess the capability to do so (Ajzen, 1991). The TPB is an essential theoretical lens through which to examine the phenomena of the intent to turnover or stay. Researchers frequently cite TPB in support of linking the intent to turnover or stay with the actual behavior of leaving or staying with an organization (Fuller et al., 1996; Gupta et al., 2022; Sun & Wang, 2017).

Intention to Stay

The majority of research over the past 100 years has focused on voluntary turnover (Hom et al., 2017), but a more recent trend within the literature has instead focused on the decision to stay. While it may appear logical that the intent to stay is simply the inverse of the intent to turnover, Fuller et al. (1996) argued that the psychological development of these two intentions differs and is distinct. Further supporting this separation, Lee and Mitchell's (1994) unfolding model of voluntary employee turnover proposed separate psychological processes are involved between the decision to stay and the decision to turnover.

The most significant effort to explain the decision to stay is the previously-mentioned job embeddedness construct (Mitchell et al., 2001) and its derivatives. However, many other primary studies have focused on retention or the decision to stay within an organization (Armstrong-Stassen & Ursel, 2009; Coombs, 2009; Gaylard et al., 2005). For example, Coombs (2009) sought to develop effective retention strategies by researching factors related to the stay intention among a population of public sector IT workers. Coombs (2009) found that those participants who closely identified with the organization perceived their work for the public good was worthwhile and felt they were part of a team, were more likely to stay.

Information Technology Worker Turnover

As previously reported in this review, professional position turnover is expensive to the organization, but it is essential to note that costs associated with IT professional turnover are often compounded (Atouba, 2018; Guha & Chakrabarti, 2014). For example, IT workers often possess rare skills and knowledge that are difficult to replace (Atouba,

2018; Coombs, 2009; Guha & Chakrabarti, 2016). As a result, key IT position turnover can cause delays in important projects, budget overruns, or even project abandonment (Atouba, 2018; Coombs, 2009). Kochanski and Ledford (2001) reported that a technical professional's turnover is three to six times the cost of losing a non-technical employee, a rate considerably higher than the estimates from other professions.

Further compounding the issue, switching jobs for IT workers is relatively frictionless compared with many professions. As Gartner (2021b) reported, working from home is now the rule rather than the exception for IT workers. Since a worker can change jobs and continue to work from home, accepting a position with a new organization is exceedingly simple because the worker no longer needs to relocate physically. Making a move to another job easier, Coombs (2009) reported that IT workers have portable skills they can easily transfer from one position to another. For example, a database administrator in K-12 performs the same tasks as a database administrator in a software development company.

Retaining IT workers has been a persistent problem for decades, with turnover rates sometimes exceeding 30 percent (Joseph et al., 2007). Further, recruiting and retaining IT workers is difficult for organizations. Demand for IT workers remains high and is projected to increase (U.S. Bureau of Labor Statistics, 2021). According to government forecasts, employment within IT positions will grow by 13% by 2030 (U.S. Bureau of Labor Statistics, 2021). Competition among organizations has driven significant increases in compensation to attract and retain highly skilled IT workers (Gartner, 2022; Perry, 2021).

The Role of Technology in K-12

With their specialized, in-demand skills and knowledge, IT workers are essential for supporting mission-critical and complex systems (Atouba, 2018; Coombs, 2009; Guha & Chakrabarti, 2016). Technology plays a vital role in the modern educational environment; it can significantly enhance learning opportunities, provide more individualized instruction, allow for better stakeholder engagement, and increase efficiency, among other benefits. Ruddell (2019) wrote about leveraging Facebook to engage Australian Indigenous communities with Western-style middle school astronomy classes as an example of using technology and social media to enhance education. The use of social media and tighter coordination with the local communities increased the effectiveness of teaching and learning, and Ruddell (2019) repeatedly cited the importance of technology workers in supporting this effort.

K-12 school systems have substantially invested in Internet access and other technology initiatives (Dolan, 2016). Further, providing technology devices to students, such as laptops, has been a priority for many school systems (Keengwe et al., 2012; Vu et al., 2019). These technology initiatives not only require IT workers for the initial installation and implementation but also for ongoing support and maintenance.

Ransomware and malware are constant threats to all organizations, but public organizations, including K-12, are frequently targeted. (Barbour, 2023; Nivens et al., 2022). In 2022, over 200 government, educational, or healthcare organizations were targeted by ransomware (Ilascu, 2023). There have been many instances of school systems shutting down while dealing with a ransomware attack, including Iowa's largest school district (Gatlan, 2023). In North Carolina, when a school system did not pay the

ransom, the attackers published sensitive student data on the Internet (Abrams, 2020). The problem of cyberattacks on K-12 institutions has become such a pressing issue that the U.S. Department of Education has become involved (U.S. Government Accountability Office, 2021). IT workers are essential in securing systems and combating the constantly evolving threat of cybercrime against K-12 organizations.

Compensation Satisfaction

The literature proposes a variety of definitions of compensation satisfaction. In one concise proposal, Lawler (1971) suggested that compensation satisfaction "is a discrepancy between how much pay one feels one should receive and how much one feels is actually received" (Lawler, 1971, p. 54). However, this study relies upon a multidimensional definition of compensation satisfaction proposed by Heneman and Schwab (1985). Heneman and Schwab defined compensation satisfaction with four dimensions: pay level satisfaction, pay raises, benefit level, and pay structure and administration. Pay level is defined as the employee's wage or salary. Pay raise refers to changes in the employee's pay level. Benefit level concerns indirect compensation, such as healthcare insurance, paid time off, or retirement plans. Finally, pay structure and administration reflect the organization's pay tiers among different roles and how the pay system is managed.

Overall, satisfaction with compensation implies that employees feel the organization has treated them fairly (Heneman & Schwab, 1985). Further, the psychological mechanisms of fairness and distributive justice are essential elements in the perceived satisfaction with compensation (Folger & Cropanzano, 1998; Tremblay et al., 2000). Distributive justice is related to the fair distribution of wealth or resources

(Tremblay et al., 2000). When employees perceive their compensation is comparable to other employees, thereby meeting their distributive justice requirement, they report more satisfaction with their pay (Folger & Cropanzano, 1998).

Compensation Satisfaction and Stay Intention

The literature contains significant disagreement concerning the role of compensation satisfaction in the turnover decision process. Examining turnover from a broad perspective across many industries and occupations, researchers conducting large-scale meta-analysis studies have reported surprise at the lack of support for compensation satisfaction strongly correlating with turnover (Heavey et al., 2013; Rubenstein et al., 2017). For example, while Rubenstein et al. (2017) found a statistically significant relationship between pay and turnover, they wrote, "Although the face validity of the consistent negative effect of pay seems intuitive, challenges remain to explain why this effect is not stronger" (p. 37). Further, Heavey et al. (2013) found no support for pay satisfaction as an antecedent to voluntary turnover.

However, within studies focused on IT workers, compensation satisfaction is frequently cited among the most critical factors. Compensation is most often the "prime reason of most of the Information Technology (IT) employees for leaving an organization" (Guha & Chakrabati, 2016. p. 15). In a cross-cultural examination of IT workers in Singapore and New Zealand, Hunter et al. (2008) found that compensation reduced turnover intentions across both populations and was culturally independent. Indeed, the IT turnover literature contains a plethora of evidence that compensation is one of the most critical influencers on IT employee retention (Guha & Chakrabarti, 2016; Naqvi & Bashir, 2015; Steil et al., 2022; Von Hagel & Miller, 2011). As Gartner (2021a)

put it, “Organizations are now fiercely competing to attract and retain the talent… [by] offering aggressive compensation increases...” (p. 1).

Hence, the discussion of compensation is particularly pertinent as public organizations’ IT salaries often fall short of the private sector (U.S. Bureau of Labor Statistics, 2021). Further, public organizations, including K-12 school systems, frequently have rigid and inflexible pay structures that do not provide for salary negotiations for IT workers (Coombs, 2009; Dekalb County Public Schools, 2023; Fulton County Public Schools, 2023; Gwinnett County Public Schools, 2022b), placing these public organizations at a severe competitive disadvantage to their private sector competitors. In many ways, K-12 entities are not even actively engaging in the competition for talent described by Gartner (2021a).

Adding another dimension to the conversation, evidence shows that some individuals may not value compensation as highly as others. For example, research indicates that certain professions, including nursing and social work, may provide intrinsic job satisfaction that equals—if not outweighs—the motivation engendered by compensation (Boughn & Lentini, 1999). In the context of K-12, researchers have shown that individuals who choose teaching as a profession report they are motivated by altruistic and service-oriented goals (Brookhart & Freeman, 1992; Brown, 1992). Further supporting this concept, Coombs (2009) found that IT professionals who worked in a government healthcare organization reported they preferred contributing to the greater good than working at a for-profit company.

Pivoting to K-12, researchers have fiercely studied the persistent issue of teacher retention (Baker et al., 2022; DeMatthews et al., 2022; Heineke et al., 2014; Imran et al.,

2017). Researchers have examined numerous retention factors and influences in these endeavors including compensation (Colson & Satterfield, 2018). While pensions, also known as defined benefit plans, are rare in the private sector, they are still prevalent in many public-sector organizations, including K-12 schools (Hansen, 2010). Within Heneman and Schwab's (1985) compensation satisfaction framework, these pension plans would be included under the benefit level component. However, studies examining the pensions' effect on retention have been inconclusive at best. For example, in 1999, the public school teachers in St. Louis, Missouri, received a significant increase in their pension program designed to incentivize them to remain in the organization (Koedel & Xiang, 2015). However, the researchers found no strong evidence that this investment translated into significant overall retention behavior (Koedel & Xiang, 2015).

In summation, the current understanding of the relationship between compensation satisfaction and turnover is murky at best and demands more attention. Indeed, Gupta and Shaw (2014) called for more studies into the effects of compensation on employee recruitment and retention, calling it a "neglected area" of research. From the perspective of this study, the apparent dissonance in the literature between broader meta-analyses and primary research specific to IT demands more attention.

Organizational Commitment

Researchers have examined the concept of organizational commitment extensively. In one of the earliest examinations of the concept of commitment, Becker (1960) relied on the idea of "consistent behavior" and wrote that "commitments are not necessarily made consciously and deliberately" (p. 38). Later, studies focused on organizational commitment through the 1970s and 80s proposed various competing

definitions, and researchers encountered difficulty reaching a consensus. For example, Mowday et al. (1979) defined organizational commitment as the amount an employee identifies with an organization. O'Reilly and Chapman (1986) suggested that a multi-faceted psychological contract forms the basis of organizational commitment. In an attempt to coalesce the divergent research, Meyer and Allen (1991) proposed a theory of organizational commitment comprised of three dimensions: affective, continuance, and normative commitment. While distinct, these three dimensions have two factors in common: they have implications concerning turnover and express the relationship between the employee and the organization (Meyer et al., 1993).

Affective commitment reflects the employee's emotional attachment to the organization (Meyer & Allen, 1991). The employee may feel a strong positive connection to the organization, leading to an eagerness to perform the work, not just for a paycheck (Meyer et al., 1993). Further, the employee may feel the organization shares their values, deepening the commitment to continue employment (Meyer & Allen, 1991). Stated another way, the employee remains with the organization because they *want to* (Meyer et al., 1993). In a follow-up study, Philip and Medina-Craven (2022) found that on-the-job embeddedness predicted affective commitment, providing context and support for the framework.

Continuance commitment reflects the perceived cost of leaving the organization (Meyer & Allen, 1991). Some examples that could feed into continuance commitment are the perceived costs of leaving an organization before vestment in the pension plan, losing social connections with well-liked coworkers, uprooting children from their school, or perhaps moving from a community where the employee is firmly entrenched. These types

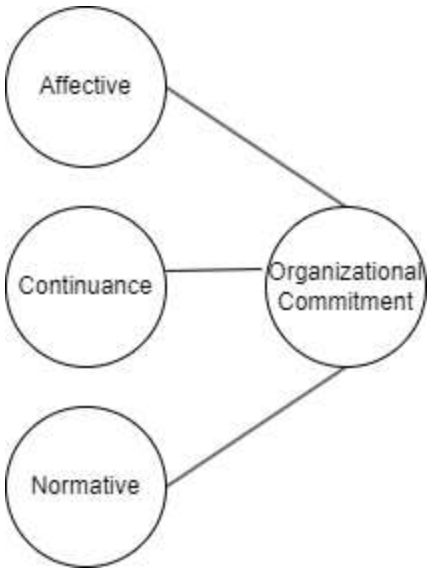
of costs can make it difficult for an employee to decide to turnover and leave the organization (Meyer & Allen, 1991). In other words, the employee remains with the organization because they *need to* (Meyer et al., 1993).

Finally, normative commitment reflects an employee's perceived moral obligation to an organization (Meyer & Allen, 1991). Employees may feel obligated to an organization because of the resources and time the organization has invested in them. For example, if the organization paid for an employee's college tuition, the employee may feel they must reciprocate and remain employed. In this case, the employee remains with the organization because they *ought to* (Meyer et al., 1993).

In the model proposed by Meyer and Allen (1991), these three components blend and contribute to the employee's overall organizational commitment. Since being proposed, Meyer and Allen's model has been extensively studied and discussed (Bonds, 2017; Landry et al., 2010; Meyer & Herscovitch, 2001; Neves et al., 2018; Rusu, 2013). Researchers frequently cite the updated version of Meyer and Allen's (1997) model as the most comprehensive model for investigating organizational commitment.

Figure 3

Three Component Organizational Commitment (adapted from Meyer & Allen, 1991)



Organizational Commitment and Stay Intention

Several researchers have found organizational commitment is correlated with the intention to stay with an organization (Bonds, 2017; Güllü et al., 2020; Neves et al., 2018; Rusu, 2013). For example, in a study of 154 oil and gas workers, Ayari and AlHamaqi (2022) found a strong correlation between all three organizational commitment components and turnover intention. Specifically related to organizational commitment among IT professionals, many studies have found IT professionals desire work that is meaningful or has a greater purpose. For example, Coombs (2009) found IT workers within a public healthcare organization felt their support of patient care was important and factored heavily into their intention to stay. Logically, these same motivations may extend to IT workers working in other government or non-profit organizations, including K-12.

Compensation Satisfaction and Organizational Commitment

In addition to the relationships between organizational commitment and compensation satisfaction with the intention to stay, the literature supports a link between compensation satisfaction and organizational commitment (Braje & Samarđija, 2016; Shinnar, 1998; Uzonwanne & Nwanzu, 2017; Wadhawan et al., 2017; Wang et al., 2010). For example, in a study of 225 bank employees, Uzonwanne and Nwanzu (2017) found a high predictive association between compensation satisfaction and organizational commitment.

In studies that used Meyer and Allen's (1997) full three-component organizational commitment model, the overall data support a relationship with compensation satisfaction, but results have varied. For example, in a study of 200 medical representatives, Wadhawan et al. (2017) found a significant relationship between compensation satisfaction and all three components (affective, continuance, normative) of organizational commitment. However, in another study of public sector employees, Braje and Samarđija (2016) only found support for two components, continuance and normative, and no support for affective. Similarly, Wang et al. (2010), in a study of Chinese technology workers, only reported support for a significant relationship between continuance and normative commitment with compensation satisfaction. Within a study of 228 IT workers in the Southeastern United States, researchers found that pay satisfaction was correlated with organizational commitment and job satisfaction (Thatcher et al., 2006). Braje and Samarđija (2016) proposed that compensation satisfaction is associated with organizational commitment primarily due to the perceived

costs of leaving an organization and less so on the emotional attachment reflected in the affective measure.

The exact nature of the relationship between organizational commitment and compensation satisfaction is also debated in the literature. For example, some studies (Braje & Samarđija, 2016; Uzonwanne & Nwanzu, 2017; Wadhawan et al., 2017) proposed that compensation satisfaction was a predictor or antecedent of organizational commitment. Alternatively, in a model proposed by Luna-Arocas et al. (2020), compensation satisfaction played a moderating role in the relationship between talent management and organizational commitment. Vandenberghe and Tremblay (2008) proposed that organizational commitment acted as a mediator between compensation satisfaction and the intention to turnover. In another model, Nasution et al. (2019) proposed that job satisfaction played a mediating role between compensation satisfaction and organizational commitment. Despite the variance in proposals and models, there is consensus that compensation satisfaction and organizational commitment are both involved at some level in employment decisions (Luna-Acrocas, 2020; Wadhawan et al., 2017).

Summary

The costs and negative consequences of voluntary turnover are well documented in the literature. Numerous studies have demonstrated a negative relationship between organizational performance and turnover across a broad range of industries (Heavey et al., 2013; Park & Shaw, 2013). While precisely measuring the financial drain of turnover to organizations is challenging (Kochanski & Ledford, 2001), most researchers estimated the cost to be between one and three times the employee's salary (Bliss, 2001; Byrnes,

1984; Idell et al., 2021; Von Hagel & Miller, 2011). Further complicating the situation, studies have shown that turnover can cause additional turnover, incurring more costs and causing even more organizational turmoil (Felps et al., 2009; Porter & Rigby, 2021).

Given the high costs and negative consequences of voluntary turnover, researchers have intensely studied the phenomena over the past century (Hom et al., 2017). Early theories focused primarily on job dissatisfaction and the ease of turnover (Mobley, 1977; Price, 1977). As the discipline matured, researchers proposed additional factors, and the voluntary turnover process models became more complex (Mobley, 1979; Price & Mueller, 1981; Steers & Mowday, 1981). In a break from previous theoretical work, Lee and Mitchell (1994) proposed the unfolding model of voluntary turnover. Instead of primarily focusing on job dissatisfaction and the availability of job alternatives, the unfolding model focused on four divergent "paths" and the psychological process. The unfolding model garnered significant support, and researchers have expanded and improved it several times (Donnelley & Quirin, 2006; Lee et al., 1999; Mitchell & Lee, 2001; Morrell et al., 2008). In an attempt to marry the process of turning over with predictors, Maertz and Campion (2004) proposed a model containing four distinct turnover decision types coupled with eight categories of motivational forces. In short, Maertz and Campion (2004) confirmed that specific voluntary turnover antecedents are associated with certain decision types.

Numerous studies have focused on individual turnover predictors or antecedents (Hom et al., 2012), providing insight into individuals' motivations. Researchers have conducted large-scale meta-analysis studies to better understand voluntary turnover antecedents across professions, organizations, and geographic areas (Cotton & Tuttle,

1986; Griffeth et al., 2000; Rubenstein et al., 2017). In short, across the expanse of the literature, there is broad consensus that turnover intention is preceded by antecedents (Hom et al., 2012).

On the surface, leaving an organization may appear to simply be the opposite of staying with an organization; however, research indicates that they are distinct and involve different psychological processes (Fuller et al., 1996). In more contemporary studies, researchers have focused more on the intention to stay. Mitchell et al.'s (2001) job embeddedness construct is a prime example of this relatively recent shift in the literature. Others, including Armstrong-Stassen and Ursel (2009) and Gaylard et al. (2005), have added to the discussion of stay intentions.

This literature review also discussed how IT turnover is especially costly and disruptive to organizations, including K-12 and other government or non-profit organizations. IT professionals are in high demand (U.S. Bureau of Labor Statistics, 2021) and frequently possess rare, specialized technical skills and knowledge (Atouba, 2018; Coombs, 2009). Kochanski and Ledford (2001) reported that technical employee turnover could be considerably more expensive than other types of employees, with replacement costs around three to six times the employee's salary. Competition for IT talent is high, and salaries continue to rise to attract the best talent (Gartner, 2022; Perry, 2021), causing stress on all organizations, including K-12 schools.

Based on the literature, two voluntary turnover predictors that may provide insight into the specific situation of K-12 IT workers were identified. While compensation for IT workers is steadily rising in the private sector, salaries for IT workers within government, including K-12 schools, are, on average, significantly lower (U.S. Bureau of Labor

Statistics, 2021). Numerous studies have shown that compensation is among the most critical factors in IT employment decisions (Guha & Chakrabarti, 2016; Gupta & Shaw, 2014; Steil et al., 2022; Von Hagel & Miller, 2011). However, research indicated that some workers may value compensation less than others (Brookhart & Freeman, 1992; Boughn & Lentini, 1999; Brown, 1992; Coombs, 2009). Measuring compensation satisfaction among K-12 IT workers may provide valuable differentiating insight.

Organizational commitment, the second identified voluntary turnover predictor, may also provide insight into the motivations of K-12 IT workers. Research indicates that organizational commitment is a reliable predictor of employment decisions (Bonds, 2017; Neves et al., 2018; Rusu, 2013). Coombs (2009) reported that IT professionals working in public healthcare felt strongly connected to the organization. Measuring organizational commitment among K-12 IT workers may provide similar valuable insight and help fill a critical void in the literature.

Chapter III

METHODOLOGY

This quantitative non-experimental study researched two factors related to stay intention among K-12 IT workers: compensation satisfaction and organizational commitment. While the literature contains a broad array of possible predictive variables, including trust in a supervisor (Lee et al., 2018), professional growth opportunities (Kim, 2012; Steil et al., 2022), and perceived respect (Apostel et al., 2018; von Hagel & Miller, 2011), the two selected independent variables had the potential to provide substantial insight into the differentiating motivations of K-12 IT professionals. The selected dependent variable was the intention to stay with the organization and not seek employment elsewhere.

In addition to their proposed predictive relationship with the dependent variable, the intention to stay, research has indicated that the two independent variables, compensation satisfaction and organizational commitment, may be correlated. This study also examined the possible co-relationship between compensation satisfaction and organizational commitment. The role of participant characteristics, including duration of employment, employee age, work location, and sex was examined.

The results of this study may help school leaders (and other similar government or

non-profit organizations) to understand their IT workforce and develop strategies to decrease turnover rates, increase efficiency, and increase workforce satisfaction. Chapter 3 describes the non-experimental survey research design along with justification for this approach. The study's population and data collection technique are discussed.

Research Questions

This study examined the relationships between compensation satisfaction and the intention to stay, organizational commitment and the intention to stay, and between organizational commitment and compensation satisfaction. This study examined the role of employee characteristics, including duration of employment, work location, sex, and age. The following research questions were formulated:

RQ 1 – Is compensation satisfaction of K-12 IT workers a significant predictor of the intention to stay employed with the school system?

RQ 2 – Is organizational commitment of K-12 IT workers a significant predictor of the intention to stay employed with the school system?

RQ 3 – Is there a relationship between compensation satisfaction and organizational commitment of K-12 IT workers?

RQ 4 – Is there a significant difference by duration of employment, work location, sex, or age on the measure of compensation satisfaction?

RQ 5 – Is there a significant difference by duration of employment, work location, sex, or age on the measure of organizational commitment?

RQ 6 – Is there a significant difference by duration of employment, work location, sex, or age on the measure of the intention to stay?

Research Design

This non-experimental quantitative survey study explored the relationships between compensation satisfaction and the intention to stay, between organizational commitment and the intention to stay, and between compensation satisfaction and organizational commitment. Logistic regression techniques were used for RQs1-2 to determine if compensation satisfaction or organizational commitment were significantly predictive of the intention to stay. Correlation coefficients were calculated for RQ3 to determine whether a significant relationship existed between compensation satisfaction and organizational commitment. A series of non-parametric ANOVA calculations were conducted for RQs4-6 to determine if significant differences existed in the measures of compensation satisfaction, organizational commitment, and stay intention between the demographic groups.

Compensation satisfaction was measured by the Pay Satisfaction Questionnaire (PSQ) developed by Heneman and Schwab (1985). A copy of the email granting permission to use this instrument is included in Appendix C. Organizational commitment was measured by the revised Organizational Commitment Questionnaire (OCQ) developed by Meyer and Allen (1997). A copy of the instrument's academic-use license is located in Appendix D. A questionnaire adapted from Armstrong-Stassen and Ursel (2009) measured the intention to stay. A copy of an email granting permission to use this instrument is located in Appendix E. These three instruments were combined into a single unified survey instrument so that individual participant responses from the component

instruments could be matched. Additionally, demographic information was collected from the participants for comparative analysis.

Participants

This study's primary source of information is data gathered from a purposive and convenience sampling of IT workers within K-12 school systems serving a metropolitan area in the Southeastern United States. This study utilized participants from school districts within the selected metropolitan area. In the context of this study, IT workers are those currently employed full-time by the school system in job roles, including system administration, network administration, software development, IT project management, information security, technical support, and other related technical duties. Only employees who are currently employed in a technical role as part of their position at the school system were eligible for the study. This population was selected because they possess the information needed to answer the research questions and were readily accessible by the researcher.

Approximately 1,100 IT workers were employed by the 11 county-level school systems in the study's geographic area. The 11 area school systems were approached about participating in the study, and six agreed to participate. The six participating school systems employed approximately 600 IT workers. A 41% response rate was achieved, with 247 completed and submitted IT worker surveys. To achieve a 95% confidence level using the most demanding method proposed for this study, ANOVA, 200 participant responses were required.

Instrumentation

Three instruments were combined into a single questionnaire so that participant

data could be easily matched between the instruments. In several survey questions, the three existing instruments referred to the employer as a "company," which does not fit the use case of a government-funded K-12 school system. Therefore, the word *company* was exchanged for the word *organization* to reflect the intention more accurately. It is not anticipated that such a minor change would affect the validity or reliability of the instruments. In addition to the questions provided by the three existing instruments, questions intended to collect demographic information were included in the survey.

Pay Satisfaction Questionnaire Validity and Reliability

The first predictor variable, an instrument developed by Heneman and Schwab (1985), was used to measure the employee's compensation satisfaction. The Pay Satisfaction Questionnaire (PSQ) is a widely used instrument containing eighteen items on a five-point Likert scale, where 1 means *highly dissatisfied,* and 5 means *highly satisfied*. The PSQ questionnaire has a reported Cronbach's Alpha ranging from 0.81 to 0.95, indicating acceptable instrument reliability. In a study of the PSQ involving 684 participants, Judge (1993) used confirmatory factor analysis to confirm the distinct multi-dimensional nature of compensation satisfaction proposed by Heneman and Schwab (1985) and the instrument's overall validity.

Organizational Commitment Questionnaire Validity and Reliability

The second predictor variable, Meyer and Allen's (1997) revised Organizational Commitment Questionnaire (OCQ) instrument, was used to measure the employees' organizational commitment. The OCQ is divided into three parts, each dedicated to a dimension of organizational commitment. Each section contains six questions on a five-point Likert scale, where 1 means *strongly disagree,* and 5 means *strongly agree.* The

OCQ has a reported Cronbach's Alphas of 0.787, 0.809, and 0.808, indicating acceptable reliability. In terms of validity, studies have found support both for the discriminate nature of the three dimensions of organizational commitment as well as the overall validity of the OCQ (Dunham et al., 1994; Hackett et al., 1994; Somers, 1995).

Intention to Stay Instrument Validity and Reliability

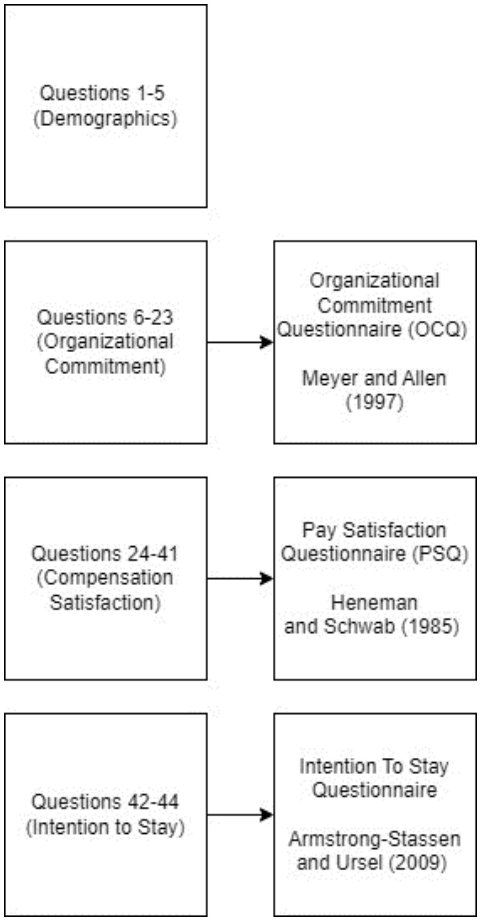
The dependent variable is the intention to stay. The study used a questionnaire adapted from Armstrong-Stassen and Ursel (2009). The questionnaire contains three items measured on a five-point Likert scale, where 1 means strongly disagree and 5 means strongly agree. The instrument has a reported Cronbach's Alpha of 0.84. In terms of validity, subsequent studies have relied on this instrument and confirmed its ability to measure the intention to stay (Yean et al., 2020; Zin, 2017).

IT Worker Survey Questions to Instrument Mapping

Figure 4 represents how the PSQ, OCQ, and intention to stay instrument questions were ordered within this study's survey.

Figure 4

IT Worker Survey Questions to Instrument Mapping



Data Collection

Internet-based surveys are commonly used data collection methods in social research, including doctoral dissertations (Ary et al., 2018). Web-based surveys provide several benefits, including the ability to reach a large audience, cost-effectiveness, and ease of response (Ary et al., 2018; Fleming & Bowden, 2009). Additionally, researchers have found that the responses from Internet-based surveys do not differ significantly from other methods, such as paper or telephone surveys (Ansolabehere & Schaffner, 2014; Fleming & Bowden, 2009; Hohwu et al., 2013).

Web-based surveys also provide a level of anonymity not afforded by other data collection methods. Without the assurance of anonymity, respondents may provide socially-acceptable answers instead of truthful answers to sensitive topics, thereby introducing response bias into the study (Ary et al., 2018; Krumpal, 2013). Additionally, research indicates an anonymous Internet-based survey results in more accurate data collection, improving study validity (Krumpal, 2013). Given the high level of sensitivity of the topics proposed within this research, including compensation satisfaction and the intention to stay employed by the organization, respondent anonymity was essential.

After obtaining school district and Valdosta State University IRB approvals (a copy of the IRB exemption is included in Appendix A), a link to an anonymous web survey hosted on Qualtrics was emailed to all IT workers within the targeted school systems using internal mailing lists or other appropriate means. Through the district-level IRB process, I requested the school system designate a local point of contact to assist with the Internet-based survey distribution. Alternatively, I leveraged my professional network of local K-12 IT workers to make a connection with an appropriate resource within the targeted school districts. Another strategy to elicit the targeted number of responses was to recruit colleagues from my local district to contact the role-alike colleagues from area school districts.

Participants were asked to complete the survey within three weeks. Follow-up reminders to complete the survey were sent twice: one week and two weeks after the initial email. During the survey period, response rates were monitored. The survey instrument was kept to a minimum length in an effort to reduce the research withdrawal rate. To measure the dependent and independent variables, the survey combined three

established instruments from the literature with proven reliability and validity. In addition to measuring compensation satisfaction, organizational commitment, and the intention to stay, the survey also gathered descriptive participant data, including work location, employment duration, sex, and age group. The risk to the participants was minimal, and the harm or discomfort caused by participating was not anticipated to exceed that of typical daily life. Participants did not provide their names or other attributes that allow the researcher or anyone else to uniquely identify them. IP addresses were excluded from the dataset.

Data Analysis

Data collected from the survey were loaded into SPSS for analysis. The data analysis was both descriptive and inferential. Means and standard deviations were calculated for the continuous variables. Categorical data were compiled and described. The alpha value was set to .05 for all inferential statistics tests.

To answer RQ 1 and RQ 2, binary logistic regression was employed to determine if either independent variable (organizational commitment and compensation satisfaction) statistically predicts the dependent variable (intent to stay). Originally, RQ 1 and RQ 2 were to be answered by simple linear regression, but data analysis revealed the data were not normally distributed as required by linear regression methods (Field, 2017). Therefore, binary logistic regression was selected in place of linear regression. In binary logistic regression, one or more independent variables predict a dichotomous dependent variable (Field, 2017). For this research, the measured intent to stay was used to calculate dichotomous participant membership in either the intend to leave group (0) or the intend to stay group (1). The minimum required size for binary logistic regression with one

predictor variable, based on the rule of thumb proposed by Bujang et al. (2018), was 150 participants.

To answer RQ 3, a correlation analysis was used to determine if a significant co-relationship exists between organizational commitment and compensation satisfaction. Correlation means that two variables change in relation to each other (Ary et al., 2018; Field, 2017). A Pearson r test was initially proposed to answer RQ 3, but the method required normally distributed data (Field, 2017). As the data were not normally distributed, the non-parametric Spearman correlation method, which does not require normally distributed data (Field, 2017), was selected to answer RQ3 instead. A Spearman rank correlation coefficient was calculated to determine the magnitude and direction of the relationship between compensation satisfaction and organizational commitment. G*Power (Faul et al., 2007) was used to calculate the minimum required sample size. Setting $a = 0.05$ and a medium (.30) effect size, a minimum sample size of 67 was required to achieve a power of .80.

To answer RQ 4, RQ 5, and RQ 6, non-parametric ANOVA methods were employed to determine if significant differences exist between the participant demographic groups. Traditional parametric ANOVA was initially selected to answer RQ 4, RQ 5, and RQ 6, but the data were found to be not normally distributed and heteroscedastic. Given that two assumptions of ANOVA were violated (Field, 2017), replacement non-parametric methods were selected. Instead, the Kruskal-Wallis and Mann-Whitney tests were employed to determine if a significant difference existed in the measure of compensation satisfaction between participants of different durations of employment, work locations, sex, or age. Compared with traditional one-way ANOVA,

the non-parametric Kruskal-Wallis and Mann-Whitney tests do not require normally distributed data or homoscedasticity (Field, 2017). G*Power (Faul et al., 2007) was used to determine the minimum required sample size for both statistical methods. The employee age and employee duration of employment are the most demanding demographic categories, with each containing five possible groups. For the Kruskal-Wallis test, to achieve a power level of .80 and seek a medium (f = .25) effect size, a minimum sample size of 200 was required. For the Mann-Whitney test to compare men and women, to achieve a power level of .80, detect a medium (d = .50) effect size, and assuming a 3:1 ratio of men to women, a minimum sample size of 196 was required.

Summary

This chapter describes the methods involved in this quantitative non-experimental survey study. The study's overall purpose was to investigate the relationships between the dependent variable, the intention to stay, with two independent variables, organizational commitment and compensation satisfaction among K-12 IT workers. Support for the three instruments' reliability and validity was provided. The study's population was K-12 IT workers from a metropolitan area in the Southeastern United States, with 11 school systems employing approximately 1,100 IT workers. Six school systems, employing approximately 600 IT workers, agreed to participate.

Chapter IV

RESULTS

The primary purpose of this study was to determine if a predictive relationship exists between organizational commitment or compensation satisfaction with the intention to stay among IT workers employed by K-12 organizations. The study examined the correlation between the two independent variables, organizational commitment and compensation satisfaction. The study was designed to explore significant differences in the measure of the variables between demographic groups, including duration of employment, work location, sex, and employee age.

The following research questions guided the study:

RQ 1 – Is compensation satisfaction of K-12 IT workers a significant predictor of the intention to stay employed with the school system?

RQ 2 – Is organizational commitment of K-12 IT workers a significant predictor of the intention to stay employed with the school system?

RQ 3 – Is there a relationship between compensation satisfaction and organizational commitment of K-12 IT workers?

RQ 4 – Is there a significant difference by duration of employment, work location, sex, or age on the measure of compensation satisfaction?

RQ 5 – Is there a significant difference by duration of employment, work location, sex, or age on the measure of organizational commitment?

RQ 6 – Is there a significant difference by duration of employment, work location, sex, or age on the measure of the intention to stay?

This chapter presents the findings for the six quantitative research questions. First, an overview of the data preparation techniques is discussed. Next, participant demographic characteristics and descriptive data are presented. After discussing the assumptions of the statistical methods and supporting data analysis, inferential results for each research question will be reported. For RQs 1-2, logistic regression techniques were used to determine if organizational commitment or compensation satisfaction significantly predicted the K-12 IT employee's intention to stay. For RQ 3, Spearman correlation coefficients were calculated to determine if a significant co-relationship exists between compensation satisfaction and organizational commitment. For RQs 4-6, non-parametric one-way ANOVA procedures were conducted to determine if significant differences existed in organizational commitment, compensation satisfaction, or intention to stay between the participant demographic groups.

Data Preparation

Approximately 600 IT workers employed by six school systems were invited to participate in the study and reply to the online anonymous survey. The survey was conducted over approximately six weeks, commencing on February 5, 2024, and concluding on March 15, 2024. During this period, a total of 264 IT workers responded to the survey, producing a 44% response rate. Of the 264 responses, 17 were incomplete and were excluded from the dataset. The remaining 247 complete survey responses provided a 41% final response rate. All data were loaded into IBM SPSS version 29 for analysis.

Except for the demographic questions, all responses were measured on a five-

point Likert scale, ranging from "Strongly Disagree" to "Strongly Agree." Responses were assigned a numerical score. To illustrate, a response of "Strongly Disagree" was assigned a value of "1," while "Strongly Agree" was assigned a value of "5." Four survey questions were inverted; therefore, the responses were flipped so that, for example, a "Strongly Disagree" response was converted into "Strongly Agree" and vice-versa.

Several calculated variables were created. The three dimensions of organizational commitment, as defined by Meyer and Allen (1991), are affective, continuance, and normative. Each dimension was measured by averaging the Likert response scores to five assigned survey questions. The results were inserted into new SPSS variables. The affective commitment was recorded in the variable "Calc_Affective_Commitment," continuance commitment was recorded in the variable "Calc_Continuance_Commitment," and normative commitment was recorded in the variable "Calc_Normative_Commitment." An overall measurement of commitment was calculated by averaging the three separate dimension scores into an overall organizational commitment score that was recorded into the new variable "Calc_Overall_Commitment."

Similar preparatory calculations were required for Heneman and Schwab's (1985) pay satisfaction instrument. Participant salary, benefit, and raise satisfaction were measured by the Likert responses to four questions each, while pay administration satisfaction was measured by the responses to six questions. Four new variables, "Calc_Salary Satisfaction," "Calc_Benefits_Satisfaction," Calc_Raise_Satisfaction," and "Calc_Admin_Satisfaction" were calculated based on the averages of the survey question responses associated with each submeasure. An overall measure of pay satisfaction was calculated based on the average of the four compensation satisfaction submeasures and

recorded into the variable "Calc_Overall_Pay_Satisfaction."

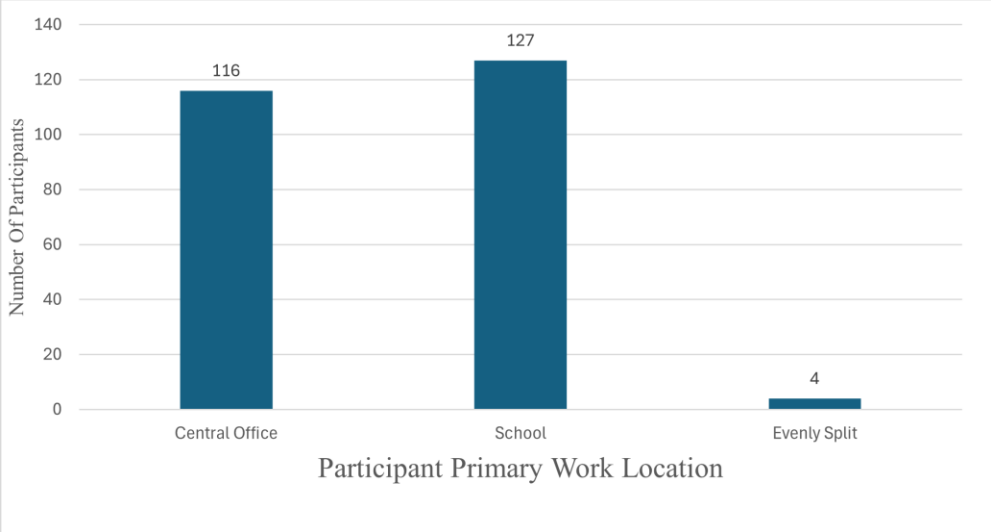
The dependent variable, the intention to stay employed with the organization, was measured by responses to three questions on a five-point Likert scale. An answer of "Strongly Disagree" was assigned a value of "1," an answer of "Disagree" was assigned a value of "2," and so on. A new variable, "Calc_Intention_To_Stay" was calculated based on the average of the responses to three questions. To support binary logistic regression, a new variable "Calc_Binary_Intention_To_Stay" was calculated by converting "Calc_Intention_To_Stay" values of less than three into zero (not intending to stay), and any value equal to or higher than three into a value of one (intending to stay).

Participant Descriptive Characteristics

The 247 participants were approximately divided evenly between those working primarily in a school (n = 127 or 51.4%) and those working mainly in a central or district office (n = 116 or 47%). Only four participants (1.6%) reported their work was split evenly between two locations (see Figure 5).

Figure 5

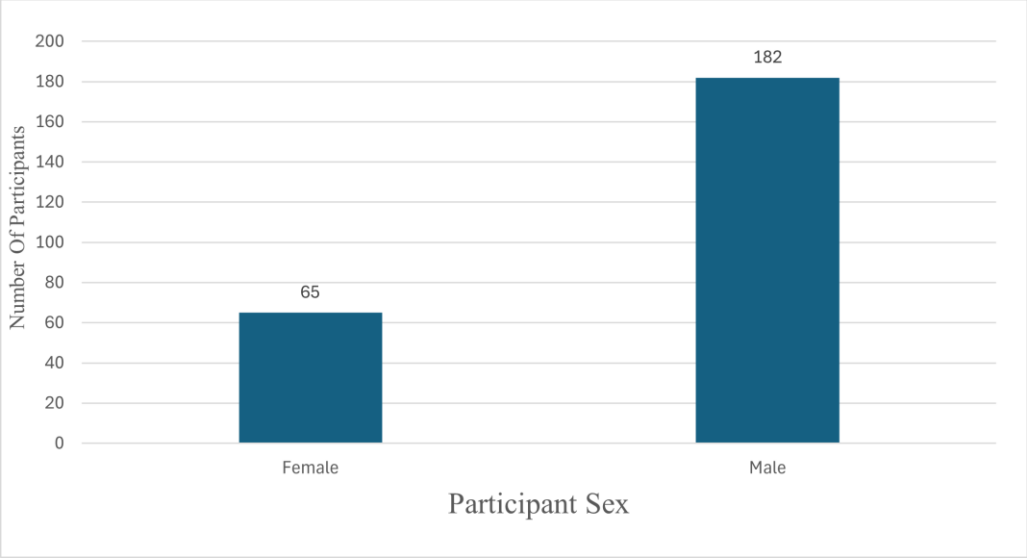
Participant Primary Work Location



Of the 247 participants, 182 (73.7%) were men, while 65 (26.3%) were women (see Figure 6). This 3:1 ratio matches the overall IT industry in the United States, where the data indicate approximately 25% to 27% of the IT workforce is women (U.S. Bureau of Labor Statistics, 2021; Varma, 2018). This indicates that the population closely reflects the overall United States IT workforce in terms of worker sex.

Figure 6

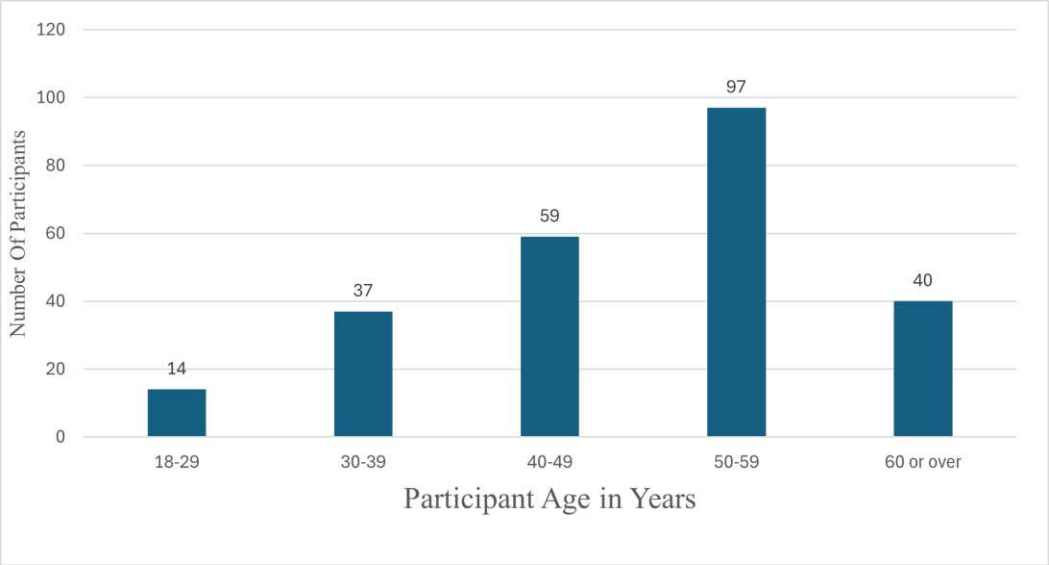
Participant Sex Distribution



While the average IT worker in the United States is 41 years old (U.S. Bureau of Labor Statistics, 2023), 196 research participants (79.3%) reported being 40 or older, while 51 participants (20.7%) reported being younger than 40 (see Figure 7). This indicates the study's K-12 IT worker population is likely older than the average technology worker in the United States.

Figure 7

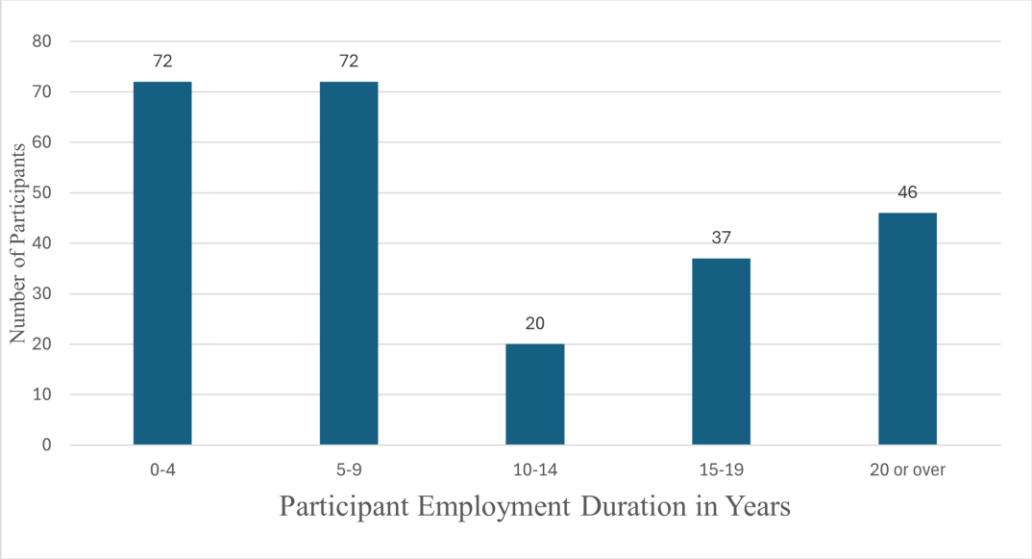
Participant Age Distribution



144 participants (58.2%) reported working for their school district for less than ten years, while 83 participants (33%) reported working there for over 15 years (see Figure 8). For comparison, in the United States, a technology worker remains employed with the same organization for 4.2 years on average (U.S. Bureau of Labor Statistics, 2022). Only 20 participants reported working for their school system for 10 to 14 years.

Figure 8

Participant Duration of Employment Distribution



In addition to the participant demographic data previously presented, descriptive statistics were calculated for the continuous variables, including organizational commitment, compensation satisfaction, and the intention to stay. Table 5 provides an overview of the data.

Table 5

Non-Demographic Variable Descriptive Statistics

Variable	Min	Max	Mode	Mean	Mdn	*SD*
Organizational Commitment						
Affective Commitment	1.00	5.00	3.33	3.75	3.83	.90
Continuance Commitment	1.00	5.00	3.00	3.15	3.17	.92
Normative Commitment	1.00	5.00	3.33	2.95	3.00	1.06
Overall Commitment	1.00	4.72	3.83	3.28	3.28	.69
Compensation Satisfaction						
Salary Satisfaction	1.00	5.00	4.00	3.00	3.00	1.01
Benefits Satisfaction	1.25	5.00	4.00	3.71	4.00	.74
Raise Satisfaction	1.00	5.00	3.00	2.84	3.00	.76
Pay Administration Satisfaction	1.17	4.33	3.00	2.84	2.83	.67
Overall Satisfaction	1.33	4.60	3.00	3.10	3.06	.65
Intention to Stay	1.00	5.00	5.00	3.88	4.00	1.06

Note. $N = 247$.

Affective commitment, or one's emotional attachment to the organization, was scored the highest on average among the three organizational commitment dimensions, with a mean of 3.75. Normative commitment, or one's perceived moral obligation to stay with the organization, was scored lowest, with an average of 2.95. These results indicated the participants' emotional attachment to the organization, reflected by their reported affective commitment scores, was more important to them than their perceived moral obligation. In terms of compensation satisfaction, participants reported the highest satisfaction with the benefits the school systems offered, with a mean score of 3.71. Raise and pay administration satisfaction were tied for the lowest reported satisfaction, with

average scores of 2.84. These results indicated the participants were pleased with the benefits the school system offered, but were less satisfied with pay administration and the pay raises.

Initial Data Analysis

To ensure the data met the assumptions of the parametric methods initially selected for this research, including linear regression, Pearson's Product-Moment Correlation, and ANOVA analyses were conducted. A series of Kolmogorov-Smirnov and Shaprio-Wilk tests were conducted to assess the data's normality. Overall compensation satisfaction exceeded the customary threshold of $p < .05$ on the Kolmogorov-Smirnov test. The other two measures, overall organizational commitment and the intention to stay, exceeded $p < .05$ on both the Kolmogorov-Smirnov and Shapiro-Wilk tests of normality. These results indicated the null hypothesis should be rejected and the data were not normally distributed (Field, 2017) (see Table 6).

Table 6

Analysis of Data Normality

		Kolmogorov-Smirnov		Shapiro-Wilk	
	df	Statistic	Sig.	Statistic	Sig.
Overall Compensation Satisfaction	247	.061	.028	.992	.163
Overall Organizational Commitment	247	.097	<.001	.981	.002
Intention To Stay	247	.161	<.001	.879	<.001

The data were graphed to investigate the issue further and to inform next steps. All three variables demonstrated a bimodal nature, and the intention to stay measured was negatively skewed. While a negative skew may be addressed by bootstrapping or monotonic data transformation (Field, 2017), the bimodal nature of the data makes such manipulation inappropriate. It would likely cause model distortion and issues with result interpretation.

Figure 9

Compensation Satisfaction Distribution

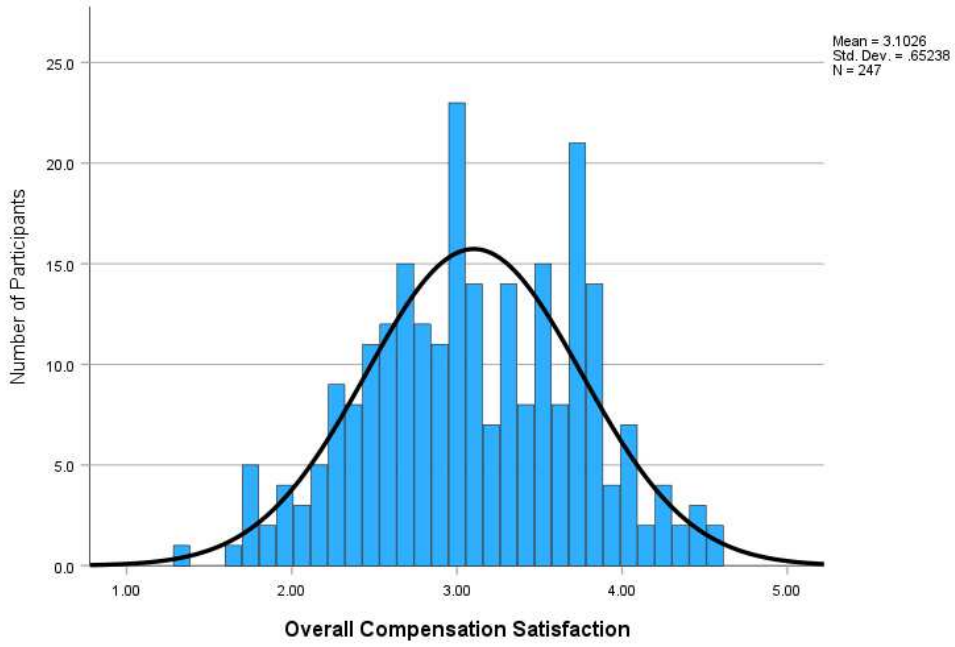


Figure 10

Organizational Commitment Distribution

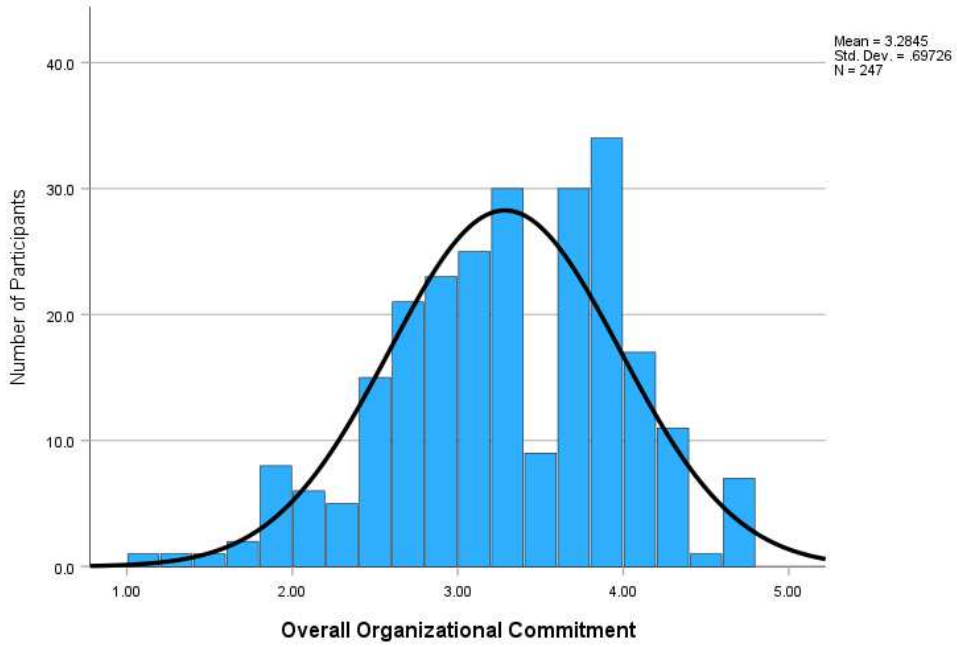
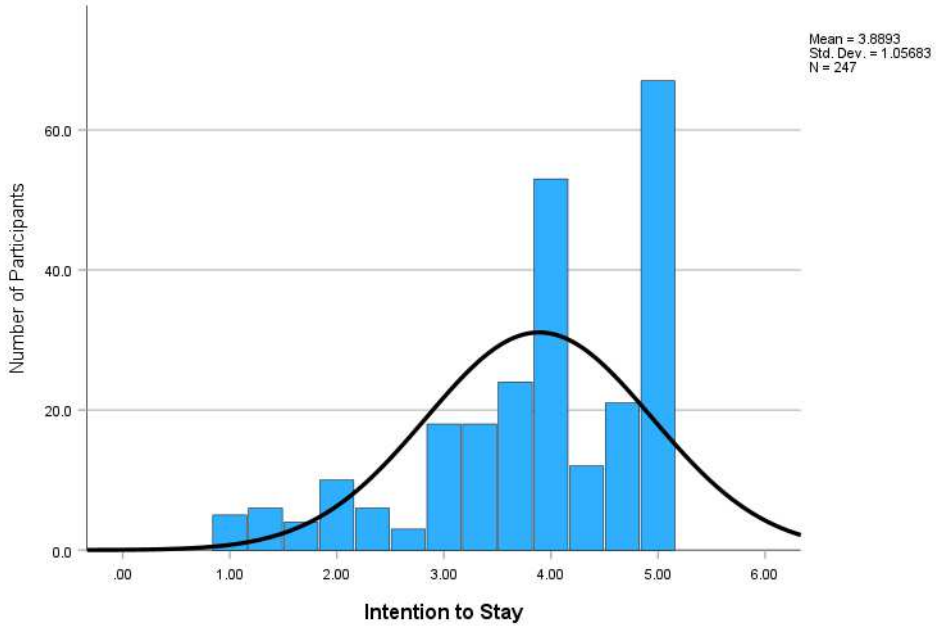


Figure 11

Intention to Stay Distribution



Another common parametric statistical method assumption, such as for one-way ANOVA, is the homogeneity of variance (Field, 2017). A series of Levene homogeneity of variance tests revealed the data to be heterogenic. Because the data violated the assumptions of the originally selected statistical methods and data transformation was not appropriate (Field, 2017), alternative non-parametric methods were chosen for this study. In place of linear regression, binary logistic regression was selected. The more robust Spearman correlation method replaced the parametric Pearson correlation. In place of one-way parametric ANOVA, the non-parametric Kruskal-Wallis and Mann-Whitney tests were chosen.

Research Question Results

Research Question 1

RQ 1 – Is compensation satisfaction of K-12 IT workers a significant predictor of the intention to stay employed with the school system?

Binary logistic regression was used to determine if compensation satisfaction or organizational commitment predicted the participant's intention to stay. Binary logistic regression does not require normal data distribution or homoscedasticity (Field, 2017). It assumes the dependent variable is binary, observations are independent and not repeated, independent variables are linearly related to the log odds, and a lack of multicollinearity among the independent variables exists (Field, 2017).

A new dichotomous dependent variable was calculated to represent the participant's intention to stay or leave the organization. If the participant's intention to stay score (Calc_Intention_To_Stay) was below three on a Likert five-point scale, a value of zero was assigned, signifying the participant's intention to leave. If the participant's

intention to stay score was three or above, they were assigned a value of one, indicating their intention to stay. The newly calculated binary variable, "Calc_Binary_Intention_To_Stay," was set as the dependent variable for the binary logistical regression procedure. Of 247 participants, 34 (13.8%) were assigned a value of zero, indicating their intention to leave; 213 (86.2%) were assigned a value of one, indicating their intention to stay.

No repeated measures were taken, so all observations were independent, satisfying the assumption of logistic regression. Data linearity with the log odds was tested using the Box-Tidwell method. No statistically significant results indicated the independent variables were linear with the logit. Since only one predictor variable was used, multicollinearity was not a concern. The assumptions of binary logistic regression were satisfied, and the analysis proceeded.

To address RQ 1, binary logistic regression was used to determine if a participant's compensation satisfaction predicted their intention to stay with the organization. The model was significant, X^2 (1, N = 247) = 23.18, p < .001, suggesting compensation satisfaction predicted the intention to stay. The model explained between 9% (Cox-Snell R-squared) and 16% (Nagelkerke R-squared) of the variance in the dependent variable. The odds of a participant intending to stay increased by 339% for each unit increment in compensation satisfaction (OR = 4.39, CI = 2.28 – 8.47) (see Table 7).

Table 7

Compensation Satisfaction Predicting the Intention to Stay

							95% C.I. for Exp(β)	
	β	S.E.	Wald	*df*	*Sig.*	Exp(β)	Lower	Upper
Compensation Satisfaction	1.48	.34	19.43	1	<.001	4.39	2.28	8.47
Constant	-2.44	.93	6.88	1	.009	.09		

While the model correctly predicted 213 (86.2%) of the cases, it only correctly predicted one case (2.9%) of a participant intending to leave the organization (see Table 8).

Table 8

Confusion Matrix: Compensation Satisfaction Predicting Intention to Stay

		Predicted	
Observed	Intend to Leave (0)	Intend to Stay (1)	Percentage Correct
Intend to Leave (0)	1	33	2.9%
Intend to Stay (1)	1	212	99.5%

The results indicated the model performed well in predicting the intention to stay but poorly in predicting the intention to leave. An inspection of the standardized residual revealed eight outliers (Std. residual > 2); all were members of the intend to leave group. Field (2017) suggested that no more than 5% of cases should exceed a standard residual of 2, and no more than 1% should exceed a standard residual of 2.5. The number of outliers fell below this threshold. The results indicated compensation satisfaction may predict the intention to stay but likely does not reliably predict the intention to leave.

Research Question 2

RQ 2 – Is organizational commitment of K-12 IT workers a significant predictor of the intention to stay employed with the school system?

Similar to RQ 1, assumptions of binary logistic regression were confirmed. The dependent variable was binary, the observations were independent and not repeated, and the Box-Tidwell method indicated the independent variables were linearly related to the log odds. The assumptions of binary logistic regression were satisfied, and the analysis continued.

To address RQ 2, binary logistic regression was used to determine if a participant's organizational commitment predicted their intention to stay with the organization. The model was significant, X^2 (1, N = 247) = 78.65, p < .001, suggesting organizational commitment predicted the intention to stay. The model explained between 27% (Cox-Snell R squared) and 50% (Nagelkerke R squared) of the variance in the dependent variable. For each unit increase in the measurement of organizational commitment, the odds of a participant intending to stay increased by 21.7 fold (OR = 22.74, CI = 8.56 – 60.44) (see Table 9).

Table 9

Organizational Commitment Predicting the Intention to Stay

							95% C.I. for Exp(β)	
	β	S.E.	Wald	*df*	*Sig.*	Exp(β)	Lower	Upper
Organizational Commitment	3.12	.50	39.24	1	<.001	22.74	8.56	60.44
Constant	-7.17	1.35	28.27	1	<.001	.001		

Overall, the model correctly predicted 222 (89.9%) of the cases (see Table 10). Using organizational commitment as the predictor instead of compensation satisfaction produced a 44.1% correct classification rate, a substantial improvement in the model's performance. It slightly decreased the model's performance for the intention to stay group. An inspection of the model's standardized residuals revealed five outliers (Std. residual > 2), all within the intent to leave group. The number of outliers falls below the suggested threshold of 5% of cases (Field, 2017).

Table 10

Confusion Matrix: Organizational Commitment Predicting Intention to Stay

Observed	Predicted		Percentage Correct
	Intend to Leave (0)	Intend to Stay (1)	
Intend to Leave (0)	15	19	44.1%
Intend to Stay (1)	6	207	97.2%

The results indicated organizational commitment was predictive of the intention to stay with the organization but less predictive of the intention to leave. The model that relied on organizational commitment correctly predicted 89.9% of the group memberships; compensation satisfaction correctly predicted 86.2%. While compensation satisfaction predicted 2.9% of intend to leave group members, organizational commitment predicted 44.1%. Organizational commitment performed better than compensation satisfaction in predictive quality.

Research Question 3

RQ 3 – Is there a relationship between compensation satisfaction and organizational commitment of K-12 IT workers?

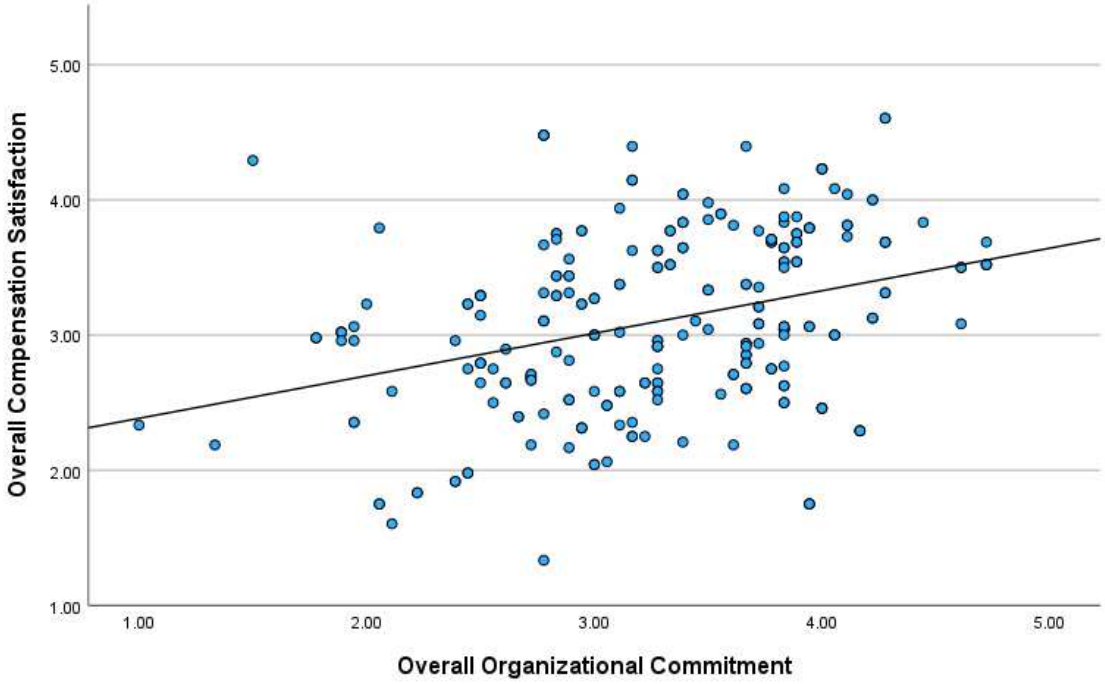
Originally, a Pearson product-moment correlation was proposed to determine if a co-relationship existed between compensation satisfaction and organizational commitment and, if it existed, to explore the magnitude and direction of the relationship. An examination revealed the data were not normally distributed, which is an assumption of the Pearson product-moment correlation method. The non-parametric Spearman's rank-order correlation method was selected as it does not require normally distributed data (Field, 2017).

Spearman's correlation has three requirements. First, both variables, overall compensation satisfaction, and overall organizational commitment, were interval data. Second, the observations were paired as the participants' compensation satisfaction and organizational commitment were measured together in one combined instrument. Finally, a scatterplot confirmed a monotonic relationship between organizational commitment and compensation satisfaction. For the purposes of this study, *r* values below .4 will be considered weak, between .4 and .8 will be considered moderate, and *r* values higher than .8 will be considered strong.

A positive correlation, $r_s(245) = .35$, $p < .001$, was detected, indicating a weak relationship between compensation satisfaction and organizational commitment. As compensation satisfaction increased, so did organizational commitment (see Figure 12).

Figure 12

Scatterplot of Overall Organizational Commitment by Overall Compensation Satisfaction



In order to gain more granular insight, Pearson correlations were calculated between the four individual compensation satisfaction submeasures (salary level, benefits, raise, and administration) and the three compensation satisfaction dimensions (affective, continuance, and normative). Table 11 presents the calculations.

Table 11

Spearman Correlations between Compensation Satisfaction Submeasures and Organizational Commitment Dimensions

	Spearman Correlations								
	OC	Affective	Cont.	Normative	CS	Salary	Benefits	Raise	Admin
OC	1.00								
Affective	.73**	1.00							
Continuance	.52**	.01	1.00						
Normative	.86**	.60**	.20*	1.00					
CS	.35**	.36**	.03	.35**	1.00				
Salary	.23**	.29**	-.01	.21**	.89**	1.00			
Benefits	.31**	.24**	.10	.33**	.62**	.40**	1.00		
Raise	.38**	.38**	.07	.35**	.91**	.77**	.47**	1.00	
Admin	.26**	.28**	-.04	.32**	.78**	.64**	.26**	.71**	1.00

Note. OC is Organizational Commitment. CS is Compensation Satisfaction.
*$p < .05$. **$p < .001$.

The majority of the relationships were highly significant, $p > .001$, with effect sizes ranging from $r_s(245) = .23$ to $r_s(245) = .91$. As previously reported, the results indicate a statistically significant weak correlation between overall organizational commitment and compensation satisfaction, $r_s(245) = .35$, $p < .001$.

Out of the dimensions of organizational commitment (OC), affective and normative commitment had almost identical positive correlations with overall compensation satisfaction (CS), $r_s(245) = .36$, $p < .001$, and $r_s(245) = .35$, $p < .001$, respectively. The relationship between affective and normative commitment with compensation satisfaction aligns with findings in the literature (Meyer et al., 2002). The continuance dimension was not found to be statistically significant with any measures of CS. The lack of correlation between the continuance dimension of OC and CS also aligns with the findings from the research literature (Meyer et al., 2002). The continuance dimension reflects the employee's perceived loss of leaving the organization, and compensation generally does not factor into this decision; therefore, the lack of correlation is understandable.

Correlations between the subcomponents of OC and CS were also examined. Out of the submeasures of CS, raise satisfaction had the highest correlation with overall OC, $r_s(245) = .38$, $p < .001$, and salary level satisfaction had the lowest, $r_s(245) = .23$, $p < .001$. Both of these correlations would be considered weak, although raise satisfaction approaches the moderate level. Benefits satisfaction demonstrated a weak correlation with OC $r_s(245) = .31$, $p < .001$. Pay administration was found to be weakly associated with OC, $r_s(245) = .26$, $p < .001$. No statistically significant negative correlations were detected between any subcomponents.

Research Question 4

RQ 4 – Is there a significant difference by duration of employment, work location, sex, or age on the measure of compensation satisfaction?

In place of the originally proposed one-way traditional ANOVA method, the non-parametric Kruskal-Wallis one-way ANOVA test was selected to determine if there is a significant difference in the measure of compensation satisfaction between participants of different durations of employment, work locations, or age. In the case of sex, the non-parametric Mann-Whitney test was selected as a better option because there were only two categories of participants (Field, 2017). Compared with traditional one-way ANOVA, the non-parametric Kruskal-Wallis and Mann-Whitney tests do not require normally distributed data or homoscedasticity (Field, 2017).

Before further statistical analysis was conducted, the Kruskal-Wallis test assumptions were examined. All observations were independent, and there were no repeated observations. Each participant was recorded in nominative variables: duration of employment in years (0-4, 5-9, 10-14, 15-19, 20 or more), work location (central office, school, or even split), and participant age in years (18-29, 30-39, 40-49, 50-59, 60 or over). Overall, participant compensation satisfaction was recorded as a continuous variable. All assumptions of the Kruskal-Wallis test were met, so the analysis continued.

A Kruskal-Wallis test was performed to determine if there was a significant difference in the measure of compensation satisfaction by duration of employment, work location, or participant age. The results indicated compensation satisfaction was not significantly affected by the duration of employment, $H(4, N = 247) = 2.39$, $p = .664$ (see

Table 12). The data indicate that K-12 IT employees, both newly-hired and veterans, report similar compensation satisfaction.

Table 12

Compensation Satisfaction by Employment Duration

Employment Duration	*n*	Median	Mean	*SD*	Min.	Max.
0-4 years	72	3.09	3.19	.5	2.06	4.40
5-9 years	72	3.06	3.07	.61	1.98	4.23
10-14 years	20	3.04	3.15	.68	1.92	4.15
15-19 years	37	3.04	3.08	.85	1.60	4.60
20 or more years	46	2.98	3.01	.75	1.33	4.40

The results for primary work location were not statistically significant: $H(2, N = 247) = .29$, $p = .864$ (see Table 13). The results indicated that employees stationed primarily at school locations did not report different compensation satisfaction from those who mainly worked at central offices.

Table 13

Compensation Satisfaction by Primary Work Location

Work Location	*n*	Median	Mean	*SD*	Min.	Max.
Central/District Office	116	3.07	3.07	.61	1.33	4.29
School	127	3.06	3.13	.69	1.75	4.60
Evenly Split	4	2.97	3.12	.54	2.71	3.83

The results for participant age were not statistically significant: $H(4, N = 247) = 6.3$, $p = .178$ (see Table 14). The results indicated that employees of differing age groups did not report statistically significant differences in satisfaction with their compensation.

Table 14

Compensation Satisfaction by Participant Age

Participant Age	*n*	Median	Mean	*SD*	Min.	Max.
18-29 years old	14	3.31	3.04	.62	2.19	3.77
30-39 years old	37	2.93	2.90	.57	1.60	4.08
40-49 years old	59	3.13	3.17	.63	1.92	4.48
50-59 years old	97	3.06	3.10	.70	1.75	4.60
60 or more years old	40	3.23	3.21	.63	1.33	4.04

The null hypothesis was retained for these cases. No statistically significant differences were detected in terms of duration of employment, work location, or participant age. The results indicated that employees of differing employment durations, primary work locations, and ages did not report statistically significant differences in their compensation satisfaction.

The assumptions of the Mann-Whitney test were confirmed before analyzing the role of sex on the measure of compensation satisfaction. The Mann-Whitney test assumes the data are not normal, only two independent groups are being compared, and the comparison variable is continuous (Field, 2017). These data requirements were examined and confirmed. Additionally, the Mann-Whitney test requires that the two groups' data be of similar shape; this assumption was verified by comparing bar charts of men's and women's responses. All assumptions of the Mann-Whitney test were met, so the analysis continued. The results indicated no significant difference existed between men (*Mdn* = 3.07) and women (*Mdn* = 3) in the measurement of compensation satisfaction, $U = 6{,}710$, $z = 1.6$, $p = .108$, $r = .01$. The null hypothesis was retained (see Table 15). The results indicated that men and women reported similar compensation satisfaction.

Table 15

Compensation Satisfaction by Participant Sex

Participant Sex	*n*	Median	Mean	*SD*	Min.	Max.
Men	182	3.07	3.14	.64	1.60	4.60
Women	65	3.00	2.99	.67	1.33	4.40

Research Question 5

RQ 5 – Is there a significant difference by duration of employment, work location, sex, or age on the measure of organizational commitment?

Identically to RQ 4, the parametric ANOVA method was replaced by the non-parametric Kruskal-Wallis and Mann-Whitney tests. The same assumption verifications were performed before the analysis continued. A Kruskal-Wallis test was performed to determine if there was a significant difference in the measure of organizational commitment by duration of employment, work location, or participant age. The results for the duration of employment were not significant, $H(4, N = 247) = 9.95$, $p = .182$ (see Table 16).

Table 16

Organizational Commitment by Employment Duration

Employment Duration	*n*	Median	Mean	*SD*	Min.	Max.
0-4 years	72	3.50	3.36	.71	1.89	4.61
5-9 years	72	3.28	3.27	.64	1.00	4.61
10-14 years	20	3.39	3.52	.67	2.39	4.72
15-19 years	37	2.94	3.05	.78	1.50	4.72
20 or more years	46	3.33	3.27	.69	1.78	4.44

The results for work location were not significant, $H(2, N = 247) = 1.87$, $p = .393$ (see Table 17). No statistically significant differences were detected between participants with differing employment duration periaods. The results indicated that employment duration is not associated with differing organizational commitment.

Table 17

Organizational Commitment by Primary Work Location

Work Location	*n*	Median	Mean	*SD*	Min.	Max.
Central/District Office	116	3.28	3.24	.66	1.33	4.72
School	127	3.39	3.32	.73	1.00	4.61
Evenly Split	4	3.61	3.26	.85	2.00	3.83

Participant age was found to be statistically significant, $H(4, N = 247) = 9.95$, $p = .041$. Differences were detected between four pairings: 40-49 and 60 or over; 40-49 and 18-29; 30-39 and 60 or over; and 30-39 and 18-29. More detail is provided in Tables 18 and 19.

Table 18

Organizational Commitment by Participant Age

Participant Age	*n*	Median	Mean	*SD*	Min.	Max.
18-29 years old	14	3.72	3.61	.61	2.50	4.28
30-39 years old	37	3.11	3.15	.74	1.33	4.61
40-49 years old	59	3.28	3.29	.70	1.00	4.22
50-59 years old	97	3.28	3.29	.70	1.50	4.72
60 or more years old	40	3.58	3.47	.62	1.94	4.61

A post-hoc analysis was performed using the Bonferroni correction to protect against type I errors. With the Bonferroni adjustment applied, the final results indicated there were no statistically significant differences. Table 19 presents the detailed analysis result.

Table 19

Group Differences on Measure of Organizational Commitment: Kruskal-Wallis Results with Bonferroni Adjustment

Age Group A and Age Group B	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adjusted Sig.
40-49 and 60+	-34.25	14.62	-2.34	.019	.192
40-49 and 18-29	47.62	21.23	2.24	.025	.249
30-39 and 60+	-33.89	16.29	-2.08	.037	.374
30-39 and 18-29	47.26	22.40	2.11	.035	.349

Note. Each row tests the null hypothesis that age group A and age group B distributions are the same. The Adjusted Sig. values were calculated using the Bonferroni correction for multiple tests. Only statistically significant relationships are shown.

A Mann-Whitney test was conducted to determine if men and women were significantly different in their measure of organizational commitment. The results indicated no significant difference existed between men (*Mdn* = 3.28) and women (*Mdn* = 3.39) in the measurement of organizational commitment, $U = 5{,}193.5$, $z = -1.46$, $p = .144$, $r = .01$). The null hypothesis was retained (see Table 20).

Table 20

Organizational Commitment by Participant Sex

Participant Sex	*n*	Median	Mean	*SD*	Min.	Max.
Men	182	3.28	3.25	.67	1.00	4.72
Women	65	3.39	3.37	.76	1.33	4.72

Research Question 6

RQ 6 – Is there a significant difference by duration of employment, work location, sex, or age on the measure of the intention to stay?

Identically to RQ 4 and 5, the parametric ANOVA method was replaced by the non-parametric Kruskal-Wallis and Mann-Whitney tests. The same assumption tests were performed before the analysis continued. All assumptions were met, so the analysis continued. A Kruskal-Wallis test was performed to determine if there was a significant

difference in the measure of the intention to stay by duration of employment, work location, or participant age. The results for duration of employment were not statistically significant, $H(4, N = 247) = 4.87$, $p = .301$ (see Table 21).

Table 21

Intention to Stay by Employment Duration

Employment Duration	*n*	Median	Mean	*SD*	Min.	Max.
0-4 years	72	4.00	4.03	0.76	2.00	5.00
5-9 years	72	4.00	3.94	1.12	1.00	5.00
10-14 years	20	4.17	4.00	1.07	1.67	5.00
15-19 years	37	3.67	3.54	1.18	1.00	5.00
20 or more years	46	4.00	3.80	1.20	1.00	5.00

The results for work location were not statistically significant, $H(2, N = 247) = 1.66$, $p = .437$ (see Table 22). No differences were found by employment duration or primary work location. The results indicated that employment duration is not associated with differing stay intentions.

Table 22

Intention to Stay by Primary Work Location

Work Location	*n*	Median	Mean	SD	Min.	Max.
Central/District Office	116	4.00	3.82	1.09	1.00	5.00
School	127	3.94	4.00	1.04	1.00	5.00
Evenly Split	4	4.33	4.42	0.42	4.00	5.00

Participant age was statistically significant, $H(4, N = 247) = 11.41$, $p = .022$. Three pairings exceeded the $p < .05$ requirement: age groups 18-29 and 60 or over; 30-39 and 40-49; and 30-39 and 60 or over. Further analysis was required, and the analysis continued. Details are provided in Tables 23 and 24.

Table 23

Intention to Stay by Participant Age

Participant Age	*n*	Median	Mean	*SD*	Min.	Max.
18-29 years old	14	3.50	3.52	1.00	1.33	5.00
30-39 years old	37	4.00	3.49	1.17	1.00	5.00
40-49 years old	59	4.00	4.05	0.94	1.00	5.00
50-59 years old	97	4.00	3.87	1.11	1.00	5.00
60 or more years old	40	4.67	4.21	0.85	1.67	5.00

A post-hoc analysis was performed using the Bonferroni correction to protect against type I errors. Table 24 presents the Bonferroni correction results per group comparison. For example, before the Bonferroni adjustment, age groups 18-29 and 60+ were indicated to be statistically different, $p = .023$. With the Bonferroni correction, the significance was adjusted to $p = .231$, indicating that no statistically significant differences existed. The comparison of the age groups of 30-49 and 60 or more came exceedingly close to the significance threshold, $p = .056$. The null hypothesis that no significant differences existed was retained. With the Bonferroni adjustment, the results indicated there were no statistically significant differences (see Table 24).

Table 24

Group Differences on Measure of Intention to Stay: Kruskal-Wallis Results with Bonferroni Adjustment

Age Group A and Age Group B	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adjusted Sig.
18-29 and 60+	-49.58	21.83	2.27	.023	.231
30-49 and 40-49	-34.55	14.74	-2.34	.019	.191
30-39 and 60+	-44.44	16.03	-2.77	.006	.056

Note. Each row tests the null hypothesis that age group A and age group B distributions are the same. The Adjusted Sig. values were calculated using the Bonferroni correction for multiple tests. Only statistically significant relationships are shown.

A Mann-Whitney test was conducted to determine if men and women were significantly different in their measured intention to stay. The results indicated no

significant difference existed between men (*Mdn* = 4) and women (*Mdn* = 4) in the measurement of organizational commitment, $U = 5{,}615.5$, $z = -.62$, $p = .538$, $r = .002$). The null hypothesis was retained (see Table 25).

Table 25

Intention to Stay by Participant Sex

Participant Sex	*n*	Median	Mean	*SD*	Min.	Max.
Men	182	4.00	3.90	0.99	1.00	5.00
Women	65	4.00	3.86	1.22	1.00	5.00

Summary

This study was designed to investigate if compensation satisfaction or organizational commitment were predictive of the intention of K-12 IT workers to stay employed by the school district. The correlation between compensation satisfaction and organizational commitment was also examined. The study was designed to determine if statistically significant differences existed between participants of different primary work locations, sex, age group, or their duration of employment with the school district on their organizational commitment, compensation satisfaction, or intention to stay. A total of six research questions guided this study.

To answer RQ 1, binary logistic regression was employed to determine if compensation satisfaction predicted the intention to stay employed by the school district. The resulting statistical model indicated that between 9% (Cox-Snell R squared) and 16% (Nagelkerke R squared) of the variance of those belonging to the intention to stay group was explained by compensation satisfaction. The odds of a participant belonging to the intending to stay group increased by 340% for each unit increment in compensation

satisfaction. Compensation satisfaction was found to be a statistically significant predictor of the intention to stay employed by the school district.

To answer RQ 2, binary logistic regression was employed to determine if organizational commitment predicted the intention to stay employed by the school district. Organizational commitment was found to be a statistically significant predictor of the intention to stay with the model, explaining between 27% (Cox-Snell R squared) and 50% (Nagelkerke R squared) of the variance in the membership in the intention to stay group. For each unit that increased in the measurement of organizational commitment, the odds of belonging to the intention to stay group increased by 21.7 fold. Organizational commitment was found to be a highly significant and major predictor of the intention to stay employed by the school district.

To answer RQ 3, a Spearman correlation coefficient was calculated to measure the magnitude and direction of the relationship between the measures of compensation satisfaction and organizational commitment. A statistically significant mild positive correlation between compensation satisfaction and organization commitment was detected. The Spearman test indicated that the measures of compensation satisfaction and organizational commitment generally increased and decreased together. The continuance dimension of organizational commitment was not found to be statistically significant with compensation satisfaction.

RQs 4-6 were answered by the non-parametric Kruskal-Wallis and Mann-Whitney analysis of variance tests. The data were examined to determine if employees of differing ages (18-29, 30-39, 40-49, 50-59, 60 years old or more), sex (male/female), primary work location (central office, school, or even split), or duration of employment

(0-4, 5-9, 10-14, 15-19, 20 years or more) demonstrated significantly different measurements of compensation satisfaction, organizational commitment, or the intention to stay. The tests found no statistically significant differences between the groups, and the null hypothesis was retained.

Chapter V

CONCLUSIONS, INTERPRETATIONS, AND RECOMMENDATIONS

This chapter bridges the existing research literature and the findings of this study, present implications, limitations, and suggest future research opportunities. This study was designed to determine if compensation satisfaction or organizational commitment predicted K-12 IT workers' intention to remain employed by their school districts. The research was conducted to determine if compensation satisfaction was correlated with organizational commitment. Differences between IT workers of different primary work locations, ages, sex, and employment duration were examined.

The findings of this study may help school district leadership better understand the employment motivations of their IT workers, who represent an essential subpopulation of the K-12 workforce. Voluntary turnover among IT workers is a persistent and relentless threat to many organizations, including K-12 school systems, negatively affecting organizational efficiency, employee morale, and financial outcomes (Heavey et al., 2013; Park & Shaw, 2013). Reducing voluntary turnover among K-12 IT workers may increase educational and business operations outcomes.

This chapter begins with a brief overview of the research literature and discusses the variables involved in this study: compensation satisfaction, organizational commitment, the intention to stay, and the relationship between those factors. An overview of the various theories of how and why voluntary turnover occurs is presented.

The methodology used in this study is briefly reviewed followed by the presentation of this study's findings and implications. A discussion of this study's limitations and recommendations for future research closes the chapter.

Related Literature

The expansive body of literature focused on voluntary turnover reflects the severity and persistence of the issue worldwide (Carayon et al., 2006; Coombs, 2009; Ladelsky & Catana, 2013). Addressing the issue broadly, researchers have focused heavily on what Rubenstein et al. (2017) referred to as the "elusive behavior" (p. 24) of voluntary turnover. Through the past several decades, many theories have been proposed and tested. The early seminal turnover theories were relatively simple. For example, March and Simon's (1958) Organizational Equilibrium Model suggested only two voluntary turnover factors, the perceived ease of turnover and the target job's desirability. These early theories formed the basis for later models and theories, which were considerably more comprehensive and complex. Among the most impactful was Lee and Mitchell's (1994) unfolding model proposing distinct "shocks" initiated one of four voluntary turnover paths. The unfolding model has been extended and enhanced several times, including the concept of job embeddedness, which attempts to explain why employees stay with a job (Mitchell et al., 2001). Later, Maertz and Campion (2004) proposed a model integrating turnover process theories with motivations.

This study was not designed to test any particular voluntary turnover theory or model although the vast majority of research into voluntary turnover notes antecedents precede the decision to leave an organization. Hom et al. (2012) proposed antecedents enter a "criterion space" (p. 832) in which one contemplates the turnover decision.

Therefore, value may be gained by researching these proposed antecedents to explain or even predict the "elusive" (Rubenstein et al., 2017, p. 24) voluntary turnover behavior.

Researchers have studied dysfunctional voluntary turnover in many industries and professions for decades (Burrows et al., 2022; Hebles et al., 2022; Kim & Kang, 2015; Neves et al., 2018). The issue of turnover within the IT profession has persisted for many years, even through severe economic downturns (Guha & Chakrabarti, 2014; Horton, 2020; Idell, 2020; Idell et al., 2021; Major et al., 2013; Steil et al., 2022). Research has illustrated turnover in key IT positions, including systems administrators, software developers, and information security analysts, can cause high financial and operational costs to organizations (Atouba, 2018; Guha & Chakrabarti, 2014; Kochanski & Ledford, 2001). In contrast with many other professions, research indicates compensation is frequently among the top reasons IT workers voluntarily leave organizations (Guha & Chakrabati, 2016). On average, though, IT workers employed by K-12 organizations accept a salary substantially lower than those employed by private businesses (U.S. Bureau of Labor Statistics, 2021).

In contrast with IT worker turnover, organizational commitment appears in the literature concerning many other professions, including teaching, social work, and nursing (Baker et al., 2022; Colson & Satterfield, 2018; DeMatthews et al., 2022; Güllü et al., 2020; Imran et al., 2017; McCluskey, 2022; Ryu & Jinnai, 2021). Within many public service professions, researchers have found that the commitment to the organization and its mission weighed heavily on the worker's decision to stay with the organization (Boughn & Lentini, 1999; Brookhart & Freeman, 1992; Brown, 1992). Research also indicates that compensation satisfaction and organizational commitment

may be positively correlated (Braje & Samarđija, 2016; Shinnar, 1998; Uzonwanne & Nwanzu, 2017; Wadhawan et al., 2017; Wang et al., 2010).

Methodology

Data were collected using an anonymous web-based survey that measured participant compensation satisfaction, organizational commitment, and their intention to stay employed by their school system. The survey also collected participant demographic information, including age, sex, primary work location, and how long the school system had employed them. Binary logistic regression was utilized to determine if compensation satisfaction or organizational commitment predicted the intention to stay. Correlation techniques were used to determine if compensation satisfaction and organizational commitment exhibited a co-relationship. Non-parametric ANOVA techniques were used to determine if statistically significant differences existed between participants of varying demographic groups.

Participants

The study's population was approximately 1,100 IT workers employed by 11 school districts in a metropolitan area in the Southeastern United States. Six school districts from the region, employing approximately 600 IT workers, agreed to participate. The participants worked in full-time positions such as system administration, network administration, technical support, information security, software development, and IT project management. Of the 600 IT workers invited to participate, 247 submitted complete survey responses, providing a 41% final response rate.

Instrumentation

The anonymous web survey was constructed primarily from three existing and proven instruments. The Pay Satisfaction Questionnaire (PSQ) was used to measure the participant's compensation satisfaction. The PSQ is an established and widely used instrument containing eighteen items on a five-point Likert scale, where 1 means *highly dissatisfied* and 5 means *highly satisfied*. The PSQ questionnaire has a reported Cronbach's Alpha ranging from 0.81 to 0.95, indicating acceptable instrument reliability. Judge (1993) used confirmatory factor analysis to demonstrate the instrument's validity.

The participants' organizational commitment was measured by Meyer and Allen's (1997) revised Organizational Commitment Questionnaire (OCQ). The instrument contains eighteen questions on a five-point Likert scale, where 1 means *strongly disagree,* and 5 means *strongly agree.* The OCQ has a reported Cronbach's Alphas of 0.787, 0.809, and 0.808, indicating acceptable reliability. Subsequent studies have found support both for the discriminate nature of the three dimensions of organizational commitment as well as the overall validity of the OCQ (Dunham et al., 1994; Hackett et al., 1994; Somers, 1995).

This study used a questionnaire adapted from Armstrong-Stassen and Ursel (2009) that contains three items measured on a five-point Likert scale where 1 means *strongly disagree,* and 5 means *strongly agree* to measure the participant's intention to stay. The instrument has a reported Cronbach's Alpha of 0.84. Later research studies have relied on this instrument and have confirmed its ability to measure the intention to stay (Yean et al., 2020; Zin, 2017). Additionally, the survey gathered participant

demographic information, including age, sex, duration of employment, and primary work location.

Data Collection and Analysis

After Valdosta State University and school district IRB approval, the survey was emailed to IT workers in the participating school systems. At least three weeks were provided for each school system's IT workers to respond to the survey. Weekly reminders were delivered. The survey period started on February 5, 2024 and ended on March 15, 2024. At the conclusion of the survey period, the data were downloaded and loaded into IBM SPSS version 28 for analysis. Statistical method assumptions were assessed, and descriptive and inferential procedures were executed.

Summary of Findings

This study was guided by six research questions intended to investigate the role of compensation satisfaction and organizational commitment on the intentions of K-12 IT workers to remain employed by their school districts. An examination was conducted as to how motivations may differ between employees of varying ages, sex, primary work location, or how long they have worked for the school system. The overall purpose of this study was to explore the motivations of K-12 IT workers to perhaps inform improved recruitment and retention efforts.

Research Question 1

RQ 1 – Is compensation satisfaction of K-12 IT workers a significant predictor of the intention to stay employed with the school system?

To determine if compensation satisfaction was a significant predictor of the intention to stay among K-12 IT workers, binary logistic regression was employed. The

resulting model was significant, X^2 (1, N = 247) = 23.18, p = <.001, suggesting compensation satisfaction predicts the intention to stay. The odds of a participant intending to stay increased by 3.4 times for each unit increment in compensation satisfaction (OR = 4.39, CI = 2.28 – 8.47). The pseudo effect size calculations indicated compensation satisfaction explained between 9% (Cox-Snell R squared) and 16% (Nagelkerke R squared) of the variance in the intention to stay or leave. The model correctly predicted 99.5% of those participants who intended to stay with the organization but only correctly predicted 2.9% of those who intended to voluntarily turnover. The results indicated compensation satisfaction was a reliable predictor of the intention to stay but a substantially less reliable indicator of the intention to leave.

Research Question 2

RQ 2 – Is organizational commitment of K-12 IT workers a significant predictor of the intention to stay employed with the school system?

Binary logistic regression was used to determine if organizational commitment is a statistically significant predictor of K-12 IT workers' intention to stay. The results were statistically significant, X^2 (1, N = 247) = 78.65, p = <.001, indicating that organizational commitment strongly predicts the intention to stay. The pseudo effect size calculations indicated that between 27% (Cox-Snell R squared) and 50% (Nagelkerke R squared) of the variance in the intention to stay was explained by organizational commitment. For each unit increase in the measurement of organizational commitment the odds of a participant intending to stay increased by 21.7 fold (OR = 22.74, CI = 8.56 – 60.44). Organizational commitment was found to be a stronger and more reliable predictor of the intention to stay than compensation satisfaction, with a correct prediction rate of 89.9%.

The model predicted those intending to leave at a better rate, with 44.1% accuracy, while correctly predicting 97.2% of those who planned to stay. Organizational commitment was highly reliable and predictive of the intention to stay with the organization but less predictive of the intention to leave.

Research Question 3

RQ 3 – Is there a relationship between compensation satisfaction and organizational commitment of K-12 IT workers?

The non-parametric Spearman's rank-order correlation method was employed to determine if compensation satisfaction and organizational commitment were correlated. The results indicated a positive correlation exists, $r_s(245) = .35$, $p < .001$, signifying a weak co-relationship exists between compensation satisfaction and organizational commitment. As compensation satisfaction increases, so does organizational commitment. The continuance dimension of organizational commitment was not found to be statistically significant with compensation satisfaction.

Research Question 4

RQ 4 – Is there a significant difference by duration of employment, work location, sex, or age on the measure of compensation satisfaction?

The non-parametric Kruskal-Wallis and Mann-Whitney tests were used to determine if there is a significant difference in the measure of compensation satisfaction between participants of different durations of employment (0-4, 5-9, 10-14, 15-19, 20 or more), work location (central office, school, or evenly split), sex, or age (18-29, 30-39, 40-49, 50-59, 60 or over).

The results of the Kruskal-Wallis test indicated compensation satisfaction was not significantly affected by the duration of employment, $H(4, N = 247) = 2.39$, $p = .664$; primary work location was not statistically significant, $H(2, N = 247) = .29$, $p = .864$; and participant age was not statistically significant, $H(4, N = 247) = 6.3$, $p = .178$. The results of the Mann-Whitney test indicated no significant difference existed between men (*Mdn* = 3.07) and women (*Mdn* = 3) in the measurement of compensation satisfaction, $U = 6710$, $z = 1.6$, $p = .108$, $r = .01$. No statistically significant differences in compensation satisfaction were detected in terms of duration of employment, work location, sex, or participant age. The null hypothesis was retained for these cases.

Research Question 5

RQ 5 – Is there a significant difference by duration of employment, work location, sex, or age on the measure of organizational commitment?

The non-parametric Kruskal-Wallis and Mann-Whitney tests were employed to answer RQ 5. The results of the Kruskal-Wallis test for the duration of employment were not significant, $H(4, N = 247) = 9.95$, $p = .182$, and the results for work location were not significant, $H(2, N = 247) = 1.87$, $p = .393$. Initially, the results for age were significant, $H(4, N = 247) = 9.95$, $p = .041$. However, a post-hoc analysis, including the Bonferroni correction, indicated that the results were not statistically significant. The final *p*-values, including the Bonferroni correction, ranged from $p = .192$ to $p = .374$. A Mann-Whitney test showed no significant difference existed between men (*Mdn* = 3.28) and women (*Mdn* = 3.39) in the measurement of organizational commitment, $U = 5{,}193.5$, $z = -1.46$, $p = .144$, $r = .01$. No statistically significant differences in organizational commitment

were detected in terms of duration of employment, work location, sex, or participant age. The null hypothesis was retained for all cases.

Research Question 6

RQ 6 – Is there a significant difference by duration of employment, work location, sex, or age on the measure of the intention to stay?

The non-parametric Kruskal-Wallis and Mann-Whitney tests were used to answer RQ 6. A Kruskal-Wallis test was performed to determine if there was a significant difference in the measure of the intention to stay by duration of employment, work location, or participant age. The results for the duration of employment were not statistically significant, $H(4, N = 247) = 4.87$, $p = .301$, and the results for work location were not statistically significant, $H(2, N = 247) = 1.66$, $p = .437$. However, participant age was initially indicated as statistically significant, $H(4, N = 247) = 11.41$, $p = .022$. However, after a post-hoc analysis was performed using the Bonferroni correction, the results indicated no statistically significant differences, with the final *p*-values ranging from $p = .056$ to $p = .231$. The results of the Mann-Whitney test revealed no significant difference existed between men ($Mdn = 4$) and women ($Mdn = 4$) in the measurement of organizational commitment, $U = 5{,}615.5$, $z = -.62$, $p = .538$, $r = .002$. No statistically significant differences in the intention to stay were detected for duration of employment, work location, sex, or participant age. The null hypothesis was retained for all cases.

Implications of Findings

This study has filled a substantial void in the voluntary turnover literature. Despite being a major employer of IT workers in the United States, previous research efforts have not focused on the employment motivations of those technology workers

crucial to K-12 operations. These findings contribute to the body of knowledge concerning the persistent threat of dysfunctional voluntary turnover, especially within the K-12 educational environment. This study uncovered several illuminating results.

The results of RQs 1-2 revealed both compensation satisfaction and organizational commitment predicted the intention to stay. A closer examination of the results suggests organizational commitment is a stronger and more reliable predictor than compensation satisfaction. While both factors were found to be statistically significant, the results indicated that organizational commitment's effect on the intention to stay was substantially stronger than compensation satisfaction. Even with the influence of both compensation satisfaction and organizational commitment accounted for, there is ample room for other predictors not tested by this research. The lack of predictive power of the intention to leave by either factor indicates further research is required to more thoroughly understand the phenomena.

These findings imply that K-12 IT workers may value compensation less than private sector workers. Researchers, including Guha and Chakrabarti (2016) and Steil et al. (2022), suggest that compensation is among the most critical factors in IT turnover decisions. However, the results reported here indicate that K-12 IT workers may be less influenced by compensation than their private-sector peers. Instead, K-12 IT workers appear to be more influenced by organizational commitment and exhibit employment motivations that are more similar to that of social workers and teachers than private-sector IT workers.

Given these results, school leaders should consider leveraging organizational commitment in employee retention and hiring efforts. For example, instead of holding IT

workers separate from instructional staff, school leaders should expand the involvement of IT workers in broader discussions or instructional initiatives, linking technology projects directly to educational outcomes. School leaders should actively engage IT workers, utilize their specialized skills and knowledge, collaborate on aligning classroom needs and objectives to technology projects, and link "backroom" IT efforts to strategic goals. These strategies can build a sense of belonging and commitment among IT workers by demonstrating how their efforts contribute to the organization. In IT worker recruitment efforts, school leaders should also consider the importance of organizational commitment. For example, instead of a typical job advertisement, ask prospective IT employees if they want to make a difference in students' lives, their local school, and their community.

The results of RQ 3 confirmed the existing literature's findings that compensation satisfaction and organizational commitment are positively correlated. However, the broader literature frequently reflects the lack of substantive power in the co-relationship between compensation satisfaction and organizational commitment organization (Heavey et al., 2013; Rubenstein et al., 2017). Some results from the research literature suggest a higher correlation, while other research closely reflects the somewhat underwhelming relationship determined through the results of this study. Much disagreement exists in the research literature about the exact relationship between compensation satisfaction and organizational commitment organization (Bonds, 2017; Güllü et al., 2020; Neves et al., 2018; Rusu, 2013). This research provides another data point to further that discussion.

RQs 4-6 were designed to investigate whether significant differences existed between participants of varying demographic groups, including age, sex, primary work

location, and how long the school system employed them. These questions were necessary because the research literature suggested significant differences may exist. For example, approximately 75% of the IT workforce in the United States is from the Millennial generation (U.S. Bureau of Labor Statistics, 2021). Research has indicated that members of the Millennial generation may demonstrate less organizational commitment than co-workers who are members of other generations (George & Wallio, 2017). This research indicates that K-12 IT workers of different generations report similar organizational commitment, implying commitment to the K-12 organization overrides typical generational inclinations.

As another example, approximately 75% of American IT workers are men, and research has indicated IT workers value compensation highly (Gaylard et al., 2005; Newman et al., 2017; Singh & Loncar, 2010; Von Hagel & Miller, 2011). In comparison, the literature indicates that in some women-dominated professions, including teaching and social work, compensation is less important, and organizational commitment is more critical (Boughn & Lentini, 1999; Brookhart & Freeman, 1992; Brown, 1992). These results indicate that K-12 IT workers of both sexes share similar employment motivations. No statistically significant differences were found between these K-12 IT worker groups.

Limitations of Study

This study was conducted with several limitations that should be carefully considered. First, the study was conducted in a single geographic area of the United States. IT workers employed by educational organizations from disparate geographic regions may possess varying motivations. Other geographic areas may have different

cultures, social norms, or local circumstances that vastly affect the results. Differences between urban and rural areas may need to be considered. Even within the study's region, approximately half of the school systems elected not to participate in the research, introducing another threat to the study's findings.

Some of the school systems in this study's selected metropolitan area are among the largest in the United States. Larger organizations will necessarily employ more IT workers than smaller ones, whereas IT workers employed by larger and more complex IT environments will be more specialized and demand higher compensation than their more general-IT-focused coworkers. Finally, the topics examined in this study can be sensitive, and participants may feel pressure to answer questions in a socially acceptable manner. An anonymous survey was disseminated to reduce participant concerns and increase confidence in the results.

Recommendations for Future Research

This research has provided an initial foothold on what will be a long climb to truly understand the motivations of IT workers in the K-12 environment. Many questions and issues persist, and this area of research remains fertile ground for future researchers. A study designed to investigate K-12 IT workers' motivations to leave - rather than stay with - the organization may prove especially useful and provide substantial insight. A qualitative, open-ended approach may prove more beneficial to gathering this information than this study's quantitative approach.

The results indicate more antecedents exist, and some may provide additional insight into the motivations of this employee population. Several promising factors have been proposed in the research literature, including trust in one's supervisor, professional

growth opportunities, and perceived respect. Perhaps a qualitative or exploratory mixed-methods approach may help discover these various antecedents.

The relationship between compensation satisfaction and organizational commitment remains murky and demands further attention (Braje & Samarđija, 2016; Shinnar, 1998; Uzonwanne & Nwanzu, 2017; Wadhawan et al., 2017; Wang et al., 2010). Although the research literature largely agrees a relationship exists, and both compensation satisfaction and organizational commitment play a role in employment decisions (Luna-Acrocas, 2020; Wadhawan et al., 2017), the exact relationship is still debated. For example, Vandenberghe and Tremblay (2008) proposed that organizational commitment acted as a mediator between compensation satisfaction and the intention to turnover. Alternatively, Luna-Arocas et al. (2020) proposed compensation satisfaction played a moderating role in the relationship between talent management and organizational commitment. Others, including Braje and Samarđija (2016), hypothesized that compensation satisfaction was an antecedent of organizational commitment. Some consolidation in theory would provide much-needed clarity to support future research efforts.

Since this research was performed in a single metropolitan area, replicating it in other geographic regions may help confirm or challenge its findings. For example, a similar study in another area of the United States, in another country, or a study focusing solely on rural K-12 IT workers may prove highly beneficial. A large-scale multi-regional study including IT workers from dozens of school districts from varying geographic regions would provide further insight.

Conclusions

This study examined the role of compensation satisfaction and organizational commitment in K-12 IT workers' stay intentions. Data were collected via an anonymous online survey from 247 participants employed by six school systems in a single metropolitan area in the Southeastern United States. Descriptive data were compiled, and inferential statistics were calculated using logistic regression, correlation, and non-parametric ANOVA methods.

It was determined compensation satisfaction and organizational commitment were predictive of the K-12 IT workers' intention to stay employed by their school system. Overall, organizational commitment was found to be the more reliable predictor. Compensation satisfaction and organizational commitment were found to have a weak, positive correlation. No differences were discovered between K-12 IT workers of differing ages, primary work locations, sex, or employment durations.

K-12 organizations are major employers of IT workers in the United States, and this research shed additional light on the technical professionals who choose to work there. Informed and guided by this additional insight, recruitment and retention efforts may be improved. For example, K-12 leaders may want to emphasize the classroom impact of IT initiatives to their IT workers, tying back-office technology efforts to tangible organizational goals that directly affect students, the school district, and the community. Engage K-12 IT workers in broader organizational discussions and emphasize their crucial role in instructional and operational activities. Rather than hold IT workers aside as simply necessary to ensure the network or systems remain available, include them in educational conversations, actively leverage their expertise and insight,

and solicit their input on non-technical activities. Similar efforts should be undertaken regarding recruitment efforts, with position advertisements emphasizing the essential role that IT workers play in the K-12 organization rather than only a typical listing of job responsibilities. Conversations with prospective IT employees should emphasize the direct positive influence technology work has on the student experience and educational outcomes. Ultimately, school leadership should take steps to ensure that K-12 IT workers feel like a part of the greater team, working toward common goals and building their organizational commitment.

REFERENCES

Abrams, L. (2020, September 4). *SunCrypt ransomware shuts down North Carolina school district*. BleepingComputer. https://www.bleepingcomputer.com/news/security/suncrypt-ransomware-shuts-down-north-carolina-school-district/

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, *50*(2), 179-211. https://doi.org/10.1016/0749-5978(91)90020-T

Allen, D. G., Peltokorpi, V., & Rubenstein, A. L. (2016). When "embedded" means "stuck": Moderating effects of job embeddedness in adverse work environments. *Journal of Applied Psychology*, *101*(12), 1670-1686. https://doi.org/10.1037/apl0000134

Allen, D. G., Weeks, K. P., & Moffitt, K. R. (2005). Turnover intentions and voluntary turnover: The moderating roles of self-monitoring, locus of control, proactive personality, and risk aversion. *Journal of Applied Psychology*, *90*(5), 980-990. https://doi.org/10.1037/0021-9010.90.5.980

Ansolabehere, S., & Schaffner, B. F. (2014). Does survey mode still matter? Findings from a 2010 multi-mode comparison. *Political Analysis*, *22*(3), 285–303. https://doi.org/10.1093/pan/mpt025

Apostel, E., Syrek, C. J., & Antoni, C. H. (2018). Turnover intention as a response to illegitimate tasks: The moderating role of appreciative leadership. *International Journal of Stress Management*, *25*(3), 234-249. https://doi.org/10.1037/str0000061

Armstrong-Stassen, M., & Ursel, N. D. (2009). Perceived organizational support, career satisfaction, and the retention of older workers. *Journal of Occupational and*

Organizational Psychology, *82*(1), 201-220. https://doi.org/10.1348/096317908X288838

Ary, D., Jacobs, L. C., Irvine, C. K. S., & Walker, D. (2018). *Introduction to research in education* (Tenth ed.). Cengage Learning.

Atouba, Y. C. (2018). Tackling the turnover challenge among IT workers: Examining the role of internal communication adequacy, employee work participation, and organizational identification. *Communication Reports*, *31*(3), 174-187. https://doi.org/10.1080/08934215.2018.1497180

Ayari, A., & AlHamaqi, A. (2022). Investigation of organizational commitment and turnover intention: A study of Bahraini Oil and Gas Industry. *Employee Responsibilities and Rights Journal*, *34*(2), 123-138. https://doi.org/10.1007/s10672-021-09382-2

Baker, R., Hill, J., Portwood, B., Smith-Harrah, E., & Hall Sutherland, D. (2022). One size does not fit all: How leadership strategies affect teacher satisfaction and retention. *Journal of Cases in Educational Leadership*, *25*(4), 378-393. https://doi.org/10.1177/15554589221120776

Banks, B. F. (2019). *Job satisfaction and turnover intention in higher education: A study of information technology professionals in the California State University System*. [Doctoral dissertation, Indiana State University]. ProQuest Dissertations & Theses Global.

Barbour, T. (2023). Your money or your file. *Alaska Business Monthly*, *39*(1), 14-18. https://www.akbizmag.com/

Becker, H. S. (1960). Notes on the concept of commitment. *American Journal of*

Sociology, *66*(1), 32-40. http://www.jstor.org/stable/2773219

Bliss, W. G. (2001). Cost of employee turnover can be staggering. *Fairfield County Business Journal*, *40*(1), 20-21. https://www.alexanderporter.com.au/wp-content/uploads/2015/07/The-Cost-of-Employee-Turnover.pdf

Bolt, E. E. T., Winterton, J., & Cafferkey, K. (2022). A century of labour turnover research: A systematic literature review. *International Journal of Management Reviews*, *24*(4), 555-576. https://doi.org/10.1111/ijmr.12294

Bonds, A. A. (2017). *Employees' organizational commitment and turnover intentions* [Doctoral dissertation, Walden University]. Walden Dissertations and Doctoral Studies

Boughn, S., & Lentini, A. (1999). Why do women choose nursing? *Journal of Nursing Education*, *38*(4), 156-161. https://doi.org/10.3928/0148-4834-19990401-05

Braje, I. N., & Samarđija, M. (2016). The role of pay satisfaction in building organizational commitment. In L. Galetic, I. N. Braje, & B. Jakovic, (Eds.), *An Enterprise Odyssey: Saving the Sinking Ship through Human Capital* (pp. 166–173). University of Zagreb.

Brookhart, S. M., & Freeman, D. J. (1992). Characteristics of entering teacher candidates. *Review of Educational Research*, *62*(1), 37-60. https://doi.org/10.3102/00346543062001037

Brown, M. M. (1992). Caribbean first-year teachers' reasons for choosing teaching as a career. *Journal of Education for Teaching*, *18*(2), 185-195. https://doi.org/10.1080/0260747920180207

Bujang M.A., Sa'at N., Sidik T.M.I.T.A.B., Joo L.C. (2018). Sample size guidelines for

logistic regression from observational studies with large population: Emphasis on the accuracy between statistics and parameters based on real life clinical data. *Malaysian Journal of Medical Science*. *25*(4), 122-130. https://doi.org/10.21315/mjms2018.25.4.12

Burrows, D. N., Porter, C. O. L. H., & Amber, B. (2022). Beyond choosing to leave: The interactive effects of on and off-the-job embeddedness on involuntary turnover. *Journal of Applied Psychology*, *107*(1), 130-141. https://doi.org/10.1037/apl0000881

Byrnes, J. F. (1984). Costing human resources: The financial impact of behavior in organizations. *Academy of Management Review*, *9*(2), 370-371. https://doi.org/10.5465/amr.1984.4277738

Carayon, P., Schoepke, J., Hoonakker, P. L. T., Haims, M. C., & Brunette, M. (2006). Evaluating causes and consequences of turnover intention among IT workers: The development of a questionnaire survey. *Behaviour and Information Technology*, *25*(5), 381-397. https://doi.org/10.1080/01449290500102144

Cascio, W. F. (1991). *Costing human resources: The financial impact of behavior in organizations* (4th ed.). UpperCase Publication Services, Ltd.

Colson, T. L., & Satterfield, C. (2018). The effects of strategic compensation on teacher retention. *Power and Education*, *10*(1), 92-104.

Coombs, C. R. (2009). Improving retention strategies for IT professionals working in the public sector. *Information and Management*, *46*(4), 233-240. https://doi.org/10.1016/j.im.2009.02.004

Cotton, J. L., & Tuttle, J. M. (1986). Employee turnover: A meta-analysis and review

with implications for research. *Academy of Management Review*, *11*(1), 55-70. https://www.jstor.org/stable/258331

Dekalb County Public Schools. (2023). *Compensation & classification*. Dekalbschoolsga.Org. https://www.dekalbschoolsga.org/hr/compensation/

DeMatthews, D. E., Knight, D. S., & Shin, J. (2022). The principal-teacher churn: Understanding the relationship between leadership turnover and teacher attrition. *Educational Administration Quarterly*, *58*(1), 76-109. https://doi.org/10.1177/0013161X211051974

Dolan, J. E. (2016). Splicing the divide: A review of research on the evolving digital divide among K–12 students. *Journal of Research on Technology in Education*, *48*(1), 16-37. https://doi.org/10.1080/15391523.2015.1103147

Donnelley, D. P., & Quirin, J. J. (2006). An extension of Lee and Mitchell's unfolding model of voluntary turnover. *Journal of Organizational Behavior*, *27*(1), 59-77. https://doi.org/10.1002/job.367

Douglas, P. H. (1918). The problem of labor turnover. *The American Economic Review*, *8*(2), 306-316. https://www.jstor.org/stable/1811123

Dunham, R. B., Grube, J. A., & Castañeda, M. B. (1994). Organizational commitment: The utility of an integrative definition. *Journal of Applied Psychology*, *79*(3), 370-380. https://doi.org/10.1037/0021-9010.79.3.3

Eberle, G. J. (1919). Labor turnover. *The American Economic Review, 9*(1), 79-82. https://www.jstor.org/stable/1803596

Fasbender, U., Heijden, B. I. J. M., & Grimshaw, S. (2019). Job satisfaction, job stress and nurses' turnover intentions: The moderating roles of on-the-job and off-the-job

embeddedness. *Journal of Advanced Nursing*, *75*(2), 327-337. https://doi.org/10.1111/jan.13842

Faul, F., Erdfelder, E., Lang, A., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods, 39*, 175-191. https://doi.org/10.3758/BF03193146

Felps, W., Mitchell, T. R., Hekman, D. R., Lee, T. W., & Harman, W. S. (2009). Turnover contagion: How coworkers' job embeddedness and job search behaviors influence quitting. *Academy of Management Journal*, *52*(3), 545-561. https://doi.org/10.5465/AMJ.2009.41331075

Field, A. P. (2017). *Discovering statistics using IBM SPSS*. (5th ed.). Sage Publications.

Fisher, B. (1917). How to reduce labor turnover. *The Annals of the American Academy of Political and Social Science*, *71*(1), 10-32. https://www.jstor.org/stable/i242658

Fleming, C. M., & Bowden, M. (2009). Web-based surveys as an alternative to traditional mail methods. *Journal of Environmental Management*, *90*(1), 284-292. https://doi.org/10.1016/j.jenvman.2007.09.011

Folger, R., & Cropanzano, R. (1998). *Organizational justice and human resource management*. Sage Publications.

Fuller, J. B., Hester, K., Dickson, P., Allison, B. J., & Birdseye, M. (1996). A closer look at select cognitive precursors to organizational turnover: What has been missed and why. *Psychological Reports*, *78*(3_suppl), 1331-1352. https://doi.org/10.2466/pr0.1996.78.3c.1331

Fulton County Public Schools. (2023). *2022-23 salary schedules*. https://www.fultonschools.org/Page/25613

Gartner. (2021a). *4 strategies to disrupt compensation-based competition in the war for talent*. https://www.gartner.com/document/4008410

Gartner. (2021b). *The future of work requires executive leaders to embrace radical flexibility*. https://www.gartner.com/document/4001483

Gartner. (2022). *Innovative strategies to attract, retain, and thrive in the new war for talent*. https://www.gartner.com/document/4010748

Gatlan, S. (2023). *Iowa's largest school district cancels classes after cyberattack*. BleepingComputer. https://www.bleepingcomputer.com/news/security/iowa-s-largest-school-district-cancels-classes-after-cyberattack/

Gaylard, M., Sutherland, M., & Viedge, C. (2005). The factors perceived to influence the retention of information technology workers. *South African Journal of Business Management*, *36*(3), Article EJC22287 https://hdl.handle.net/10520/EJC22287

George, J., & Wallio, S. (2017). Organizational justice and millennial turnover in public accounting. *Employee Relations*, *39*(1), 112–126.

Ghapanchi, A. H., & Aurum, A. (2011). Antecedents to IT personnel's intentions to leave: A systematic literature review. *Journal of Systems and Software*, *84*(2), 238-249. https://doi.org/10.1016/j.jss.2010.09.022

Griffeth, R. W., Hom, P. W., & Gaertner, S. (2000). A meta-analysis of antecedents and correlates of employee turnover: Update, moderator tests, and research implications for the next millennium. *Journal of Management*, *26*(3), 463-488. https://doi.org/10.1177/014920630002600305

Guha, S., & Chakrabarti, S. (2014). Employee turnover: A study on information technology sector. *Journal of Business Management*, *20*(2), 71-87.

Guha, S., & Chakrabarti, S. (2016). Differentials in attitude and employee turnover propensity: A study of information technology professionals. *Global Business and Management Research*, *8*(1), 1-17. http://www.gbmrjournal.com/pdf/vol.%208%20no.%201/V8N1-1.pdf

Güllü, S., Yildiz, B. S., & Kaya, R. (2020). The mediating effect of organizational commitment between mobbing and turnover intention: An application on physical education and sports teachers. *European Journal of Education Studies*, *7*(2), 181-190. https://doi.org/10.5281/zenodo.3726362

Gupta, N., & Shaw, J. D. (2014). Employee compensation: The neglected area of HRM research. *Human Resource Management Review*, *24*(1), 1-4. https://doi.org/10.1016/j.hrmr.2013.08.007

Gupta, S. K., Bhatia, N., & Bhagat, M. (2022). A review of employee turnover models and their role in evolution of turnover literature. *Indian Journal of Labour Economics*, *65*(1), 185-214. https://doi.org/10.1007/s41027-022-00366-w

Gwinnett County Public Schools. (2022a). *Budget information*. https://www.gcpsk12.org/Page/24476

Gwinnett County Public Schools. (2022b). *Salary schedules*. https://www.gcpsk12.org/Page/24409

Hackett, R. D., Bycio, P., & Hausdorf, P. A. (1994). Further assessments of meyer and allen's (1991) Three-component model of organizational commitment. *Journal of Applied Psychology*, *79*(1), 15-23. https://doi.org/10.1037/0021-9010.79.1.15

Hansen, J. S. (2010). An introduction to teacher retirement benefits. *Education Finance and Policy*, *5*(4), 402-437. https://eric.ed.gov/?id=EJ902747

Heavey, A. L., Holwerda, J. A., & Hausknecht, J. P. (2013). Causes and consequences of collective turnover: A meta-analytic review. *Journal of Applied Psychology*, *98*(3), 412-453. https://doi.org/10.1037/a0032380

Hebles, M., Trincado-Munoz, F., & Ortega, K. (2022). Stress and turnover intentions within healthcare teams: The mediating role of psychological safety, and the moderating effect of COVID-19 worry and supervisor support. *Frontiers in Psychology*, *12*. https://doi.org/10.3389/fpsyg.2021.758438

Heineke, A. J., Mazza, B. S., & Tichnor-Wagner, A. (2014). After the two-year commitment: A quantitative and qualitative inquiry of teach for America teacher retention and attrition. *Urban Education*, *49*(7), 750-782. https://doi.org/10.1177/0042085913488603

Heneman, H. G., & Schwab, D. P. (1985). Pay satisfaction: Its multidimensional nature and measurement. *International Journal of Psychology*, *20*(1), 129-141. https://doi.org/10.1080/00207598508247727.

Heskett, J. L., Jones, T. O., Loveman, G. W., Sasser W. Earl, Jr., & Schlesinger, L. A. (2008). Putting the service-profit chain to work. *Harvard Business Review*, *86*(7/8), 118-129. https://hbr.org/2008/07/putting-the-service-profit-chain-to-work

Hinkin, T. & Tracey, J. (2000). The cost of turnover: Putting a price on the learning curve. *Cornell Hotel and Restaurant Administration Quarterly*, *41*(3), 65-75. https://doi.org/10.1016/S0010-8804(00)80013-0

Holtom, B. C., & Inderrieden, E. J. (2006). Integrating the unfolding model and job embeddedness model to better understand voluntary turnover. *Journal of Managerial Issues*, *18*(4), 435-452. https://www.jstor.org/stable/40604552

Hom, P. W., Lee, T. W., Shaw, J. D., & Hausknecht, J. P. (2017). One hundred years of employee turnover theory and research. *Journal of Applied Psychology*, *102*(3), 530-545. https://doi.org/10.1037/apl0000103

Hom, P. W., Mitchell, T. R., Lee, T. W., & Griffeth, R. W. (2012). Reviewing employee turnover: Focusing on proximal withdrawal States and an expanded criterion. *Psychological Bulletin*, *138*(5), 831-858. https://doi.org/10.1037/a0027983

Horton, S. (2020). *Strategies for information technology employee retention* [Doctoral dissertation, Walden University]. Walden Dissertations and Doctoral Studies Collection.

Hohwü, L., Lyshol, H., Gissler, M., Jonsson, S. H., Petzold, M., & Obel, C. (2013). Web-based versus traditional paper questionnaires: A mixed-mode survey with a Nordic perspective. *Journal of Medical Internet Research*, *15*(8), Article e173. https://doi.org/10.2196/jmir.2595

Hunter, M. G., Tan, F. B., & Tan, B. C. Y. (2008). Voluntary turnover of information systems professionals: A cross-cultural investigation. *Journal of Global Information Management*, *16*(4), 46-66. https://doi.org/https://doi.org/10.4018/jgim.2008100103

Idell, K. (2020). *Information technology professionals: Linking trust and turnover intention*. [Doctoral dissertation, Drexel University]. ProQuest Dissertations & Theses Global.

Idell, K., Gefen, D., & Ragowsky, A. (2021). Managing IT professional turnover. *Communications of the ACM*, *64*(9), 72-77. https://doi.org/10.1145/3434641

Ilascu, I. (2023). *Ransomware impacts over 200 govt, edu, healthcare orgs in 2022*. BleepingComputer. https://www.bleepingcomputer.com/news/security/ransomware-

impacts-over-200-govt-edu-healthcare-orgs-in-2022/

Imran, R., Allil, K., & Mahmoud, A. B. (2017). Teacher's turnover intentions : Examining the impact of motivation and organizational commitment. *International Journal of Educational Management*, *31*(6), 828-842. https://doi.org/10.1108/IJEM-05-2016-0131

Joseph, D., Ng, K., Koh, C., & Ang, S. (2007). Turnover of information technology professionals: A narrative review, meta-analytic structural equation modeling, and model development. *MIS Quarterly, 31*(3), 547-577. https://www.jstor.org/stable/25148807

Judge, T. A. (1993). Validity of the dimensions of the pay satisfaction questionnaire: Evidence of differential prediction. *Personnel Psychology*, *46*(2), 331-355. https://doi.org/10.1111/j.1744-6570.1993.tb00877.x

Jung, C. S. (2010). Predicting organizational actual turnover rates in the U.S. federal government. *International Public Management Journal*, *13*(3), 297-317. https://doi.org/10.1080/10967494.2010.504124

Jung, C. S. (2014). Why are goals important in the public sector? Exploring the benefits of goal clarity for reducing turnover intention. *Journal of Public Administration Research and Theory*, *24*(1), 209-234. https://doi.org/10.1093/jopart/mus058

Keengwe, J., Schnellert, G., & Mills, C. (2012). Laptop initiative: Impact on instructional technology integration and student learning. *Education and Information Technologies*, *17*(2), 137-146. https://doi.org/10.1007/s10639-010-9150-8

Keskes, I. (2014). Relationship between leadership styles and dimensions of employee organizational commitment: A critical review and discussion of future directions.

Intangible Capital, *10*(1), 26-51. https://doi.org/10.3926/ic.476

Kim, S. (2012). The impact of human resource management on state government IT employee turnover intentions. *Public Personnel Management*, *41*(2), 257-279. https://doi.org/10.1177/009102601204100204

Kim, S.W., Price, J. L., Mueller, C. W., & Watson, T. W. (1996). The determinants of career intent among physicians at a US Air Force hospital. *Human Relations*, *49*(7), 947-976. https://doi.org/10.1177/001872679604900704

Kim, Y., & Kang, Y. (2015). Effects of self-efficacy, career plateau, job embeddedness, and organizational commitment on the turnover intention of nurses. *Journal of Korean Academy of Nursing Administration*, *21*(5), 530. https://doi.org/10.11111/jkana.2015.21.5.530

Kochanski, J., & Ledford, G. (2001). "How to Keep Me"—Retaining technical professionals. *Research Technology Management*, *44*(3), 31-38. https://doi.org/10.1080/08956308.2001.11671427

Koedel, C., & Xiang, P. B. (2015). Pension enhancements and the retention of public employees. *ILR Review*, *70*(2), 519-551. https://www.jstor.org/stable/26753822

Krackhardt, D., & Porter, L. W. (1986). The snowball effect: Turnover embedded in communication networks. *Journal of Applied Psychology, 71*(1), 50-55. https://doi.org/10.1037/0021-9010.71.1.50

Kruglanski, A. W., & Mayseless, O. (1990). Classic and current social comparison research: Expanding the perspective. *Psychological Bulletin, 108*(2), 195-208. https://doi.org/10.1037/0033-2909.108.2.195

Krumpal, I. (2013). Determinants of social desirability bias in sensitive surveys: A

literature review. *Quality and Quantity, 47*(1), 2025–2047. https://doi.org/10.1007/s11135-011-9640-9

Ladelsky, L. K., & Catana, G. A. (2013). Causes affecting voluntary turnover in IT sector. Review of some empirical studies. In I. Plais & R. Ciornea (Eds.), *Proceedings of the International Conference: Marketing – from Information to Decision* (pp. 102-113). https://econ.ubbcluj.ro/mid/conference/2017/MID%202013%20Proceedings.pdf

Lambert, E. G., Hogan, L. N., & Barton, S. M. (2001). The impact of job satisfaction on turnover intent: a test of structural measurement model using a national sample of workers. *The Social Science Journal*, *38*(2), 233-250. https://doi.org/10.1016/S0362-3319(01)00110-0

Landry, G., Panaccio, A., & Vandenberghe, C. (2010). Dimensionality and consequences of employee commitment to supervisors: A two-study examination. *Journal of Psychology*, *144*(3), 285-312. https://doi.org/10.1080/00223981003648302.

Lawler, E. (1971). *Pay and organization effectiveness: A psychological view*. McGraw Hill.

Lee, S., Fernandez, S., & Chang, C. (2018). Job scarcity and voluntary turnover in the U.S. federal bureaucracy. *Public Personnel Management*, *47*(1), 3-25. https://doi.org/10.1177/0091026017732798

Lee, T. W., Hom, P. W., Eberly, M. B., Jason, J. L. I., & Mitchell, T. R. (2017). On the next decade of research in voluntary employee turnover. *Academy of Management Perspectives*, *31*(3), 201-221. https://doi.org/10.5465/amp.2016.0123

Lee, T. W., & Mitchell, T. R. (1994). An alternative approach: The unfolding model of

voluntary employee turnover. *Academy of Management Review*, *19*(1), 5-89. https://doi.org/10.2307/258835

Lee, T. W., Mitchell, T. R., Brooks, C. H., McDaniel, L. S., & Hill, J. W. (1999). The unfolding model of voluntary turnover: a replication and extension. *Academy of Management Journal*, *42*(4), 450-462. https://doi.org/10.2307/257015

Lee, T. W., Mitchell, T. R., Sablynski, C. J., & Burton, J. P. (2004). The effects of job embeddedness on organizational citizenship, job performance, volitional absences, and voluntary turnover. *Academy of Management Journal*, *47*(5), 711-722. https://doi.org/10.2307/20159613

Lee, T. W., Mitchell, T. R., Wise, L., & Fireman, S. (1996). An unfolding model of voluntary employee turnover. *Academy of Management Journal*, *39*(1), 5-36. https://doi.org/10.2307/256629

Luna-Arocas, R., Danvila-Del Valle, I., & Lara, F. J. (2020). Talent management and organizational commitment: the partial mediating role of pay satisfaction. *Employee Relations, 42*(4), 863-881. https://doi.org/10.1108/ER-11-2019-0429

Maertz, C. P., & Campion, M. A. (2004). Profiles in quitting: Integrating process and content turnover theory. *Academy of Management Journal*, *47*(4), 566-582. https://doi.org/10.2307/20159602

Major, D. A., Morganson, V. J., & Bolen, H. M. (2013). Predictors of occupational and organizational commitment in information technology: Exploring gender differences and similarities. *Journal of Business and Psychology*, *28*(3), 301-314. https://doi.org/10.1007/s10869-012-9282-5

March, J. G., & Simon, H. A. (1958). *Organizations*. Wiley.

McCluskey, M. S. (2022). Turnover contagion: Trust and the compounding impact of turnover on teachers. *Journal of School Choice*. Advance online publication. https://doi.org/10.1080/15582159.2022.2151923

Mckinney, W. R., Bartlett, K. R., & Mulvaney, M. A. (2007). Measuring the costs of employee turnover in Illinois public park and recreation agencies: An exploratory study. *Journal of Park and Recreation Administration*, *25*(1), Article 1370 https://js.sagamorepub.com/index.php/jpra/issue/view/175

Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review*, *1*(1), 61-89. https://doi.org/10.1016/1053-4822(91)90011-Z

Meyer, J. P., & Allen, N. J. (1997). *Commitment in the workplace*. Sage Publications, Inc.

Meyer, J. P., Allen, N. J., & Smith, C. A. (1993). Commitment to organizations and occupations: Extension and test of a three-component conceptualization. *Journal of Applied Psychology, 78*(4), 538-551. https://doi.org/10.1037/0021-9010.78.4.538

Meyer, J. P., & Herscovitch, L. (2001). Commitment in the workplace: toward a general model. *Human Resource Management Review*, *11*(3), 299-326. https://doi.org/10.1016/S1053-4822(00)00053-X

Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behavior, 61*(1), 20-52. https://doi.org/10.1006/jvbe.2001.1842

Mitchell, T. R., Holtom, B. C., Lee, T. W., Sablynski, C. J., & Erez, M. (2001). Why

people stay: using job embeddedness to predict voluntary turnover. *Academy of Management Journal*, *44*(6), 1102-1121. https://doi.org/10.5465/3069391

Mitchell, T. R., & Lee, T. W. (2001). The unfolding model of voluntary turnover and job embeddedness: Foundations for a comprehensive theory of attachment. *Research in Organizational Behavior*, *23*, 189-246. https://doi.org/10.1016/S0191-3085(01)23006-8

Mitra, A., Jenkins, G. D., & Gupta, N. (1992). A meta-analytic review of the relationship between absence and turnover. *Journal of Applied Psychology*, *77*(6), 879-889. https://doi.org/10.1037/0021-9010.77.6.879

Mitrovska, S., & Eftimov, L. (2016). Calculating the cost for employee turnover in the IT industry. *Journal of Human Resource Management*, *XIX*(1), 23-33. https://www.jhrm.eu/

Mobley, W. H. (1977). Intermediate linkages in the relationship between job satisfaction and employee turnover. *Journal of Applied Psychology*, *62*(2), 237-240. https://doi.org/10.1037/0021-9010.62.2.237

Mobley, W. H. (1982). *Employee turnover, causes, consequences, and control*. Addison-Wesley.

Mobley, W. H., Griffeth, R. W., Hand, H. H., & Meglino, B. M. (1979). Review and conceptual analysis of the employee turnover process. *Psychological Bulletin*, *86*(3), 493-522. https://doi.org/10.1037/0033-2909.86.3.493

Morrell, K., Loan-Clarke, J., Arnold, J., & Wilkinson, A. (2008). Mapping the decision to quit: A refinement and test of the unfolding model of voluntary turnover. *Applied Psychology*, *57*(1), 128-150. https://doi.org/10.1111/j.1464-0597.2007.00286.x

Mowday, R. T., Steers, R. M., & Porter, L. W. (1979). The measurement of organizational commitment. *Journal of Vocational Behavior*, *14*(2), 224-247. https://doi.org/10.1016/0001-8791(79)90072-1

Naqvi, S. M. M. R., & Bashir, S. (2015). IT-expert retention through organizational commitment: A study of public sector information technology professionals in Pakistan. *Applied Computing and Informatics*, *11*(1), 60-75. https://doi.org/10.1016/j.aci.2011.11.001

Nasution, M., Prayogi, M., Jufrizen, J., Pulungan, D., & Juliandi, A. (2019). Compensation and Organizational Commitment: The Mediating Role of Job Satisfaction. *Proceedings of The 2nd International Conference On Advance And Scientific Innovation, ICASI 2019, 18 July, Banda Aceh, Indonesia*. https://doi.org/10.4108/eai.18-7-2019.2288578

Neves, T., Graveto, J., Rodrigues, V., Marôco, J., & Parreira, P. (2018). Organizational commitment, psychometric qualities and invariance of the Meyer and Allen Questionnaire for Portuguese Nurses. *Revista Latino-Americana de Enfermagem*, *26*. https://doi.org/10.1590/1518-8345.2407.3021

Newman, J. M., Gerhart, B. A., & Milkovich, G. T. (2017). *Compensation*. Mcgraw-Hill Education.

Nivens, S., Stock, A., Gardiner, D. M., & Lazzarotti, J. (2022). Ransomware: To pay or not to pay? *NU Claims*, *70*(2), 22-25.

O'Reilly, C., & Chatman, J. (1986). Organizational commitment and psychological attachment: The effects of compliance, identification, and internalization on prosocial behavior. *Journal of Applied Psychology*, *71*(3), 492-499.

https://doi.org/10.1037/0021-9010.71.3.492

Park, T. Y., & Shaw, J. D. (2013). Turnover rates and organizational performance: A meta-analysis. *Journal of Applied Psychology*, *98*(2), 268-309. https://doi.org/10.1037/a0030723

Perry, T. S. (2021). Tech pay rises (Almost) Everywhere: The "great resignation" is pushing salaries up. *IEEE Spectrum*, *58*(12). https://doi.org/10.1109/MSPEC.2021.9641775

Philip, J., & Medina-Craven, M. N. (2022). An examination of job embeddedness and organizational commitment in the context of HRD practices. *Management Research Review*, *45*(12), 1592-1607. https://doi.org/10.1108/MRR-03-2021-0224

Porter, C. M., & Rigby, J. R. (2021). The turnover contagion process: An integrative review of theoretical and empirical research. *Journal of Organizational Behavior*, *42*(2), 212-228. https://doi.org/10.1002/job.2483

Price, J. L. (1977). *The study of turnover*. Iowa State Press.

Price, J. L., & Mueller, C. W. (1981). A causal model of turnover for nurses. *Academy of Management Journal*, *24*(3), 543-565. https://doi.org/10.2307/255574

Rubenstein, A. L., Eberly, M. B., Lee, T. W., & Mitchell, T. R. (2017). Surveying the forest: A meta-analysis, moderator investigation, and future-oriented discussion of the antecedents of voluntary employee turnover. *Personnel Psychology*, *71*(1), 23-65. https://doi.org/10.1111/peps.12226

Ruddell, N. (2019). Beyond the middle school science classroom: Using social media to connect the indigenous sky stories community. *Teaching Science*, *65*(2), 38-47. https://search.informit.org/doi/10.3316/aeipt.224057

Rusu, R. (2013). Affective organizational commitment, continuance organizational commitment or normative organizational commitment? *Management and Economics*, *2*(70), 192-197. https://www.proquest.com/docview/1542398385?pq-origsite=gscholar&fromopenview=true

Ryu, S., & Jinnai, Y. (2021). Effects of monetary incentives on teacher turnover: A longitudinal analysis. *Public Personnel Management*, *50*(2), 205-231. https://doi.org/10.1177/0091026020921414

Shaw, J. D. (2011). Turnover rates and organizational performance. *Organizational Psychology Review*, *1*(3), 187-213. https://doi.org/10.1177/2041386610382152

Shaw, J. D., Delery, J. E., Jenkins, G. D., & Gupta, J. N. (1998). An organizational-level analysis of voluntary and involuntary turnover. *Management Journal, 41*(5), 511-525. https://www.jstor.org/stable/256939

Sherman, T. K. (2014). *The effects of job embeddedness on retention of employees in public higher education* [Doctoral dissertation, Fresno State University]. ProQuest Dissertations & Theses Global.

Shinnar, R. S. (1998). *The relationship between employee benefit satisfaction and organizational commitment* [Masters thesis, University of Nevada, Las Vegas]. UNLV Retrospective Theses & Dissertations

Shipp, A. J., Furst-Holloway, S., Harris, T. B., & Rosen, B. (2014). Gone today but here tomorrow: Extending the unfolding model of turnover to consider boomerang employees. *Personnel Psychology*, *67*(2), 421-462. https://doi.org/10.1111/peps.12039

Singh, P., & Loncar, N. (2010). Pay satisfaction, job satisfaction and turnover intent.

Relations Industrielles, *65*(3), 470-490. https://doi.org/10.7202/044892ar

Somers, M. J. (1995). Organizational commitment, turnover and absenteeism: An examination of direct and interaction effects. *Journal of Organizational Behavior*, *16*(1), 49-58. https://doi.org/10.1002/job.4030160107

Steel, R. P., & Ovalle, N. K. (1984). A review and meta-analysis of research on the relationship between behavioral intentions and employee turnover. *Journal of Applied Psychology, 69*(4), 673-686. https://doi.org/10.1037/0021-9010.69.4.673

Steers, R. M., & Mowday, R. T. (1981). *Employee turnover and postdecision accommodation processes*. University of Oregon Graduate School of Management. https://apps.dtic.mil/sti/pdfs/ADA079122.pdf

Steil, A. V., Bello, J. S. A., Freitas, A. F., Kronbauer, J., & De Cuffa, D. (2022). Reasons for professionals to stay or leave information technology organizations. *Revista de Administracao Mackenzie*, *23*(1). https://doi.org/10.1590/1678-6971/eRAMG220161

Sun, R., & Wang, W. (2017). Transformational leadership, employee turnover intention, and actual voluntary turnover in public organizations. *Public Management Review*, *19*(8), 1124-1141. https://doi.org/10.1080/14719037.2016.1257063

Thatcher, J. B., Liu, Y., Stepina, L. P., Goodman, J. M., & Treadway, D. C. (2006). IT worker turnover: An empirical examination of intrinsic motivation1. *Data Base for Advances in Information Systems*, *37*(2-3), 133-146. https://doi.org/10.1145/1161345.1161361

Tremblay, M., Sire, B., & Balkin, D. B. (2000). The role of organizational justice in pay and employee benefits satisfaction, and its effects on work attitudes. *Group and*

Organization Management, *25*(3), 269-290. https://doi.org/10.1177/1059601100253004

Tziner, A., & Birati, A. (1996). Assessing employee turnover costs: A revised approach. *Human Resource Management Review*, *6*(2), 113-122. https://doi.org/10.1016/S1053-4822(96)90015-7

U.S. Bureau of Labor Statistics. (2018). *Computer and information technology occupations: Occupational outlook handbook: U.S. Bureau of Labor Statistics*. Bls.Gov. https://www.bls.gov/ooh/computer-and-information-technology/home.htm

U.S. Bureau of Labor Statistics. (2021). *Occupational employment and wage statistics*. Occupational Employment and Wage Statistics. https://www.bls.gov/oes/tables.htm

U.S. Bureau of Labor Statistics. (2022) *Employee Turnover in 2022*. https://www.bls.gov/news.release/pdf/tenure.pdf

U.S. Bureau of Labor Statistics. (2023). *Labor force statistics from the current population survey*. Current Population Survey. https://www.bls.gov/cps/cpsaat18b.htm

U.S. Government Accountability Office. (2021, October 13). *Critical infrastructure protection: Education should take additional steps to help protect K-12 schools from cyber threats*. GAO.Gov. https://www.gao.gov/products/gao-22-105024

Uzonwanne, F. C., & Nwanzu, C. L. (2017). Pay satisfaction and career satisfaction as predictors of organizational commitment among employee leaders of banks in north and southwest Nigeria. *Journal of Management Research, 17*(1), 9-21. https://www.indianjournals.com/ijor.aspx?target=ijor:jmr&volume=17&issue=1&article=002

Vandenberghe, C., & Tremblay, M. (2008). The role of pay satisfaction and organizational commitment in turnover intentions: A two-sample study. *Journal of Business and Psychology, 22*(3), 275-286. https://doi.org/10.1007/s10869-008-9063-3

Varma, R. (2018). U.S. Science and Engineering Workforce: Underrepresentation of Women and Minorities. *American Behavioral Scientist*, *62*(5), 692-697. https://doi.org/10.1177/0002764218768847

Von Hagel, W. J., & Miller, L. A. (2011). Precipitating events leading to voluntary employee turnover among information technology professionals. *Journal of Leadership Studies*, *5*(2), 14-33. https://doi.org/10.1002/jls.20215

Vu, P., Fredrickson, S., & Gaskill, M. (2019). One-to-one initiative implementation from insiders' perspectives. *TechTrends*, *63*(1), 62-67. https://doi.org/10.1007/s11528-018-0359-5

Wadhawan, C., Mishra, M., & Garg, K. (2017). A study of relationship between compensation satisfaction and organizational commitment in pharmaceutical sector. *International Journal of Computer Applications, 1,* 7-12. https://research.ijcaonline.org/icaet2017/number1/ICAET2017003.pdf

Wang, C. Y. P., Chen, M. H., Hyde, B., & Hsieh, L. (2010). Chinese employees' work values and turnover intentions in multinational companies: The mediating effect of pay satisfaction. *Social Behavior and Personality, 38*(7), 871-894. https://doi.org/10.2224/sbp.2010.38.7.871

Yean, T. F., Chin, T. L., & Sanjeevkumar, V. (2020). Determinants of presenteeism and intention to stay: A two-wave study. *Global Business and Management Research*,

12(4), 384-391. http://www.gbmrjournal.com/pdf/v12n4/V12N4-35.pdf

Zin, M. L. B. M. (2017). The mediating role of perceived organizational support on the relationship between pay and intention to stay. *Management Review: An International Journal*, *12*(1), 57-76. https://www.proquest.com/scholarly-journals/mediating-role-perceived-organizational-support/docview/1932307608/se-2?accountid=14800

Zylka, M. P., & Fischbach, K. (2017). Turning the spotlight on the consequences of individual IT turnover: A literature review and research Agenda. *Data Base for Advances in Information Systems*, *48*(2), 52-78. https://doi.org/10.1145/3084179.3084185

Appendix A

Valdosta State University IRB Exemption

Institutional Review Board (IRB)
For the Protection of Human Research Participants

Protocol Exemption Report

Protocol Number: 04477-2023 **Responsible Researcher(s):** W. Brad LaJeunesse

Supervising Faculty: Dr. Michael Bochenko

Project Title: *A Quantitative Study of the Relationship of Organizational Commitment and Compensation Satisfaction with Stay Intentions Among K-12 Information Technology Workers.*

INSTITUTIONAL REVIEW BOARD DETERMINATION:

This research protocol is **exempt** from Institutional Review Board (IRB) oversight under 45 CFR 46.101(b) of the federal regulations, **category 2.** If the nature of the research changes such that exemption criteria no longer apply, please consult with the IRB Administrator (irb@valdosta.edu) before continuing your research study.

ADDITIONAL COMMENTS:

- *The approved research study is **authorized** to begin at the following research site(s): <school district names removed at their request>.*
- *Upon receipt and approval of additional LOC this Protocol Exemption Report will be released documenting the approved site and date of addition.*
- *Upon completion of the research study collected data must be securely maintained (e.g. locked file cabinet, password-protected computer, etc.) and accessible only by the researcher for a minimum of 3 years. At the end of the required time, collected data must be permanently destroyed.*

☒ ***If this box is checked, please submit any documents you revise to the IRB Administrator at tmwright@valdosta.edu to ensure an updated record of your exemption.***

Elizabeth Ann Olphie *11.28.2023*
Elizabeth Ann Olphie, IRB Administrator

Thank you for submitting an IRB application.
Please direct questions to irb@valdosta.edu or 229-253-2947.

Revised: 06.02.16

Appendix B

IT Worker Survey

IT Worker Survey

You are being asked to participate in a survey research project entitled "A Quantitative Study of the Relationship of Organizational Commitment and Compensation Satisfaction with Stay Intentions Among K-12 Information Technology Workers," which is being conducted by W. Brad LaJeunesse, a doctoral student at Valdosta State University. The purpose of the study is to research factors involved in employment decisions among IT workers in the K-12 school environment. You will receive no direct benefits from participating in this research study. However, your responses may help us learn more about intention of IT workers who chose to work in K-12 organizations. There are no foreseeable risks involved in participating in this study other than those encountered in day-to-day life. Participation should take approximately 15 minutes to complete. This survey is anonymous. No one, including the researcher, will be able to associate your responses with your identity. Your participation is voluntary. You may choose not to take the survey, to stop responding at any time, or to skip any questions that you do not want to answer. Participants must be at least 18 years of age to participate in this study. Your completion of the survey serves as your voluntary agreement to participate in this research project and your certification that you are 18 or older. You may print a copy of this statement for your records.

This anonymous survey is intended for full-time information technology employees of the selected districts in the <removed> Metropolitan area including <names removed at the request of the participating school districts> counties. Please only complete this survey if you are currently employed by one of these school systems working in a role such as system or network administration, IT security operations, software development, systems analysis, IT project management, IT leadership, application support, technical support, or other related jobs.

Q: Are you willing to participate in this study?

[If No, then survey ends.]

General Information

1. Please select your employer
    a. <names removed at the request of the participant school districts>
    b. <names removed at the request of the participant school districts>
    c. <names removed at the request of the participant school districts>
    d. <names removed at the request of the participant school districts>
    e. <names removed at the request of the participant school districts>
    f. <names removed at the request of the participant school districts>
2. How long have you been employed by this school system?
    a. 0-4 years
    b. 5-9 years
    c. 10-14 years

    d. 15-19 years
    e. 20+ years
3. Would you consider your primary work location or office space to be at a central administrative office or within a school?
    a. District-level or central office
    b. School
    c. My time is evenly split between a central office and a school location
4. What is your age?
    a. 18-29 years old
    b. 30-39 years old
    c. 40-49 years old
    d. 50-59 years old
    e. 60+ years old
5. What is your sex?
    a. Male
    b. Female

The statements below describe various aspects of your commitment to your employer. For each statement, indicate how much you agree or disagree.

6. I would be very happy to spend the rest of my career in this organization.
    a. Strongly Disagree
    b. Disagree
    c. Neutral
    d. Agree
    e. Strongly Agree
7. I really feel as if this organization's problems are my own.
    a. Strongly Disagree
    b. Disagree
    c. Neutral
    d. Agree
    e. Strongly Agree
8. I do not feel like "part of my family" at this organization.
    a. Strongly Disagree
    b. Disagree
    c. Neutral
    d. Agree
    e. Strongly Agree
9. I do not feel "emotionally attached" to this organization.
    a. Strongly Disagree
    b. Disagree
    c. Neutral
    d. Agree
    e. Strongly Agree
10. This organization has a great deal of personal meaning for me.

a. Strongly Disagree
b. Disagree
c. Neutral
d. Agree
e. Strongly Agree

11. I do not feel a strong sense of belonging to this organization.
    a. Strongly Disagree
    b. Disagree
    c. Neutral
    d. Agree
    e. Strongly Agree
12. It would be very hard for me to leave my job at this organization right now even if I wanted to.
    a. Strongly Disagree
    b. Disagree
    c. Neutral
    d. Agree
    e. Strongly Agree
13. Too much of my life would be disrupted if I leave my organization.
    a. Strongly Disagree
    b. Disagree
    c. Neutral
    d. Agree
    e. Strongly Agree
14. Right now, staying with my job at this organization is a matter of necessity as much as desire.
    a. Strongly Disagree
    b. Disagree
    c. Neutral
    d. Agree
    e. Strongly Agree
15. I believe I have too few options to consider leaving this organization.
    a. Strongly Disagree
    b. Disagree
    c. Neutral
    d. Agree
    e. Strongly Agree
16. One of the few negative consequences of leaving my job at this organization would be the scarcity of available alternatives elsewhere.
    a. Strongly Disagree
    b. Disagree
    c. Neutral
    d. Agree
    e. Strongly Agree

17. One of the major reasons I continue to work for this organization is that leaving would require considerable personal sacrifice.
    a. Strongly Disagree
    b. Disagree
    c. Neutral
    d. Agree
    e. Strongly Agree
18. I do not feel any obligation to remain with my organization.
    a. Strongly Disagree
    b. Disagree
    c. Neutral
    d. Agree
    e. Strongly Agree
19. Even if it were to my advantage, I do not feel it would be right to leave.
    a. Strongly Disagree
    b. Disagree
    c. Neutral
    d. Agree
    e. Strongly Agree
20. I would feel guilty if I left this organization now.
    a. Strongly Disagree
    b. Disagree
    c. Neutral
    d. Agree
    e. Strongly Agree
21. This organization deserves my loyalty.
    a. Strongly Disagree
    b. Disagree
    c. Neutral
    d. Agree
    e. Strongly Agree
22. I would not leave my organization right now because of my sense of obligation to it.
    a. Strongly Disagree
    b. Disagree
    c. Neutral
    d. Agree
    e. Strongly Agree
23. I owe a great deal to this organization
    a. Strongly Disagree
    b. Disagree
    c. Neutral
    d. Agree
    e. Strongly Agree

The statements below describe various aspects of your pay. For each statement, decide how satisfied or dissatisfied you feel about your pay and select the answer that best indicates your feeling.

24. My take-home pay
    a. Very dissatisfied
    b. Dissatisfied
    c. Neither satisfied nor dissatisfied
    d. Satisfied
    e. Very Satisfied
25. My benefits package
    a. Very dissatisfied
    b. Dissatisfied
    c. Neither satisfied nor dissatisfied
    d. Satisfied
    e. Very Satisfied
26. My most recent raise
    a. Very dissatisfied
    b. Dissatisfied
    c. Neither satisfied nor dissatisfied
    d. Satisfied
    e. Very Satisfied
27. Influence my supervisor has on my pay
    a. Very dissatisfied
    b. Dissatisfied
    c. Neither satisfied nor dissatisfied
    d. Satisfied
    e. Very Satisfied
28. My current salary
    a. Very dissatisfied
    b. Dissatisfied
    c. Neither satisfied nor dissatisfied
    d. Satisfied
    e. Very Satisfied
29. Amount the organization pays towards my benefits
    a. Very dissatisfied
    b. Dissatisfied
    c. Neither satisfied nor dissatisfied
    d. Satisfied
    e. Very Satisfied
30. The raises I have typically received in the past
    a. Very dissatisfied
    b. Dissatisfied
    c. Neither satisfied nor dissatisfied
    d. Satisfied

e. Very Satisfied

31. The organization's pay structure
    a. Very dissatisfied
    b. Dissatisfied
    c. Neither satisfied nor dissatisfied
    d. Satisfied
    e. Very Satisfied
32. Information the organization gives about pay issues of concern to me
    a. Very dissatisfied
    b. Dissatisfied
    c. Neither satisfied nor dissatisfied
    d. Satisfied
    e. Very Satisfied
33. My overall level of pay
    a. Very dissatisfied
    b. Dissatisfied
    c. Neither satisfied nor dissatisfied
    d. Satisfied
    e. Very Satisfied
34. The value of my benefits
    a. Very dissatisfied
    b. Dissatisfied
    c. Neither satisfied nor dissatisfied
    d. Satisfied
    e. Very Satisfied
35. Pay of other jobs in the organization
    a. Very dissatisfied
    b. Dissatisfied
    c. Neither satisfied nor dissatisfied
    d. Satisfied
    e. Very Satisfied
36. Consistency of the organization's pay policies
    a. Very dissatisfied
    b. Dissatisfied
    c. Neither satisfied nor dissatisfied
    d. Satisfied
    e. Very Satisfied
37. Size of my current salary
    a. Very dissatisfied
    b. Dissatisfied
    c. Neither satisfied nor dissatisfied
    d. Satisfied
    e. Very Satisfied
38. The number of benefits I receive
    a. Very dissatisfied

b. Dissatisfied
c. Neither satisfied nor dissatisfied
d. Satisfied
e. Very Satisfied

39. How my raises are determined
    a. Very dissatisfied
    b. Dissatisfied
    c. Neither satisfied nor dissatisfied
    d. Satisfied
    e. Very Satisfied
40. Difference in pay among jobs in the organization
    a. Very dissatisfied
    b. Dissatisfied
    c. Neither satisfied nor dissatisfied
    d. Satisfied
    e. Very Satisfied
41. How the organization administers pay.
    a. Very dissatisfied
    b. Dissatisfied
    c. Neither satisfied nor dissatisfied
    d. Satisfied
    e. Very Satisfied

The three statements describe your intention to remain employed by your school system. For each statement, indicate how much you agree or disagree.

42. Barring unforeseen circumstances, I would remain in this organization indefinitely
    a. Strongly Disagree
    b. Disagree
    c. Neutral
    d. Agree
    e. Strongly Agree
43. If I were completely free to choose, I would prefer to continue working in this organization
    a. Strongly Disagree
    b. Disagree
    c. Neutral
    d. Agree
    e. Strongly Agree
44. I expect to continue working as long as possible in this organization
    a. Strongly Disagree
    b. Disagree
    c. Neutral
    d. Agree

e. Strongly Agree

Appendix C

Permission to use Pay Satisfaction Questionnaire

Permission to use Pay Satisfaction Questionnaire

HERBERT G HENEMAN <hheneman@bus.wisc.edu>
Thu 10/5/2023 1:43 PM
To:William B LaJeunesse <wblajeunesse@valdosta.edu>
Delivered From External Sender

---

brad
you have my permission to use the psq as specified in your email. good luck.
herb

Herb Heneman III

Appendix D

TCM Employee Commitment Survey Academic License

Last updated - July 20, 2017

Product Name: TCM Employee Commitment Survey

The Academic Package includes the survey, instructions for using, scoring, and interpreting the survey results as well as additional sources for more information about the commitment scales and employee commitment. The license provides proper permission notice for use of the scales for academic purposes.

FOR ACADEMIC RESEARCHER / STUDENT USE

IMPORTANT: The Questionnaire you seek to use is licensed only on the condition that you ("YOU") are an Academic Researcher (as defined below) and agree with The University of Western Ontario ("WESTERN") to the terms and conditions set forth below. THIS LICENSE IS LIMITED TO A SINGLE USE OF THE QUESTIONNAIRE IN A RESEARCH PROJECT. ADDITIONAL USES OF THE QUESTIONNAIRE REQUIRE A RENEWAL LICENSE. PLEASE CAREFULLY READ THE TERMS AND CONDITIONS OF THIS QUESTIONNAIRE LICENSE AGREEMENT.

IF YOU AGREE TO BE BOUND BY THE TERMS OF THIS AGREEMENT, YOU SHOULD CLICK ON THE "I Accept" BOX AT THE BOTTOM OF THIS AGREEMENT. IF YOU DO NOT AGREE TO THE TERMS OF THIS AGREEMENT, YOU ARE NOT AUTHORIZED TO DOWNLOAD OR USE THE QUESTIONNAIRE.

DEFINITIONS

In this agreement, the following words, when capitalized, have the indicated meanings:

"Academic Researcher" indicates someone whose position presumes that they will conduct research and be responsible for the publication or other dissemination of the results of that research or be responsible for the teaching of students.

"Inventors" indicate the authors, Dr. John Meyer and Dr. Natalie Allen, in the Faculty of Social Science at WESTERN.

"Questionnaire" indicates the TCM Employee Commitment Survey, Academic Version 2004 developed by the Inventors. The Questionnaire includes the Users Guide and the Organizational Commitment Survey which is available in two versions; the "Original" which contains 24 questions and the "Revised" which contains 18 questions. The license granted under this Agreement includes both versions of the survey and the Users Guide and can be downloaded from this website as a single PDF file.

"Research Project" indicates the administration of the Questionnaire to a person(s) or an organization by an Academic Researcher for the purpose of a single academic research study whereby no consideration of any kind, payment or otherwise, is received from the participants, or any affiliates of the participants, for the results from administering the Questionnaire.

1. LICENSE TO USE:

WESTERN hereby grants to YOU a personal, non-exclusive, revocable, non-transferable, limited license to use the Questionnaire in a single Research Project. Any use of the Questionnaire for consulting or other commercial purposes is strictly prohibited. The rights granted to YOU are subject to the restrictions set out in Section 4 of the associated Merchant's Terms of Use Agreement.

2. LICENSE FEE:

For use in a single Research Project conducted by an Academic Researcher the fee shall be CA$0.00.

3. TERMS OF USE:

(a) YOU acknowledge that the Questionnaire is a copyrighted work and that it shall retain any
copyright notices contained in or associated with the Questionnaire. Any use of or reference to the Questionnaire in a Research Project shall include the following notice: "Use of the TCM Employee Commitment Survey, authored by John Meyer and Natalie Allen was made under license from The University of Western Ontario, London, Canada".

(b) YOU agree (at the request of the Inventors) to share any results of the research conducted using the Questionnaire.

4. TERM AND TERMINATION:

This Agreement is limited to use in a single Research Project and shall terminate at the conclusion of the Research Project. Use of the Questionnaire in subsequent research requires a renewal of the license.

This Agreement shall terminate immediately without notice from WESTERN if you fail to comply with any provision of this Agreement. On any termination of this Agreement, the Disclaimer of Warranty,
Restrictions, Limitation of Liability and Indemnity provisions of this Agreement shall survive such termination.

5. OWNERSHIP & RESTRICTIONS:

The Questionnaire and any and all knowledge, know-how and/or techniques relating to the
Questionnaire in whole or in part, is and shall remain the sole and absolute property of WESTERN and WESTERN owns any and all right, title and interest in and to the Questionnaire.

6. DISCLAIMER OF WARRANTY:

NOTHING IN THIS AGREEMENT IS OR SHALL BE CONSTRUED AS:
A WARRANTY OR REPRESENTATION BY WESTERN AS TO THE VALIDITY OR SCOPE OF ANY COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHTS IN THE QUESTIONNAIRE.

7. GOVERNMENT END USERS:

US Government end users are not authorized to use the Questionnaire under this Agreement.

8. USE:

YOU are responsible for supplying any hardware or software necessary to use the Questionnaire
pursuant to this Agreement.

9. GENERAL PROVISIONS:
(a) This Agreement (and all disputes arising out of or relating to this Agreement) shall be governed and interpreted according to the laws of Ontario, Canada without regard to its conflicts of laws rules.
YOU agree that by accepting the terms of this Agreement and using the Questionnaire YOU have attorned to the exclusive jurisdiction of a Court of competent authority in the Province of Ontario, Canada.
(b) USE OF THE QUESTIONNAIRE IS PROHIBITED IN ANY JURISDICTION WHICH DOES NOT GIVE EFFECT TO THE TERMS OF THIS AGREEMENT.
(c) YOU agree that no joint venture, partnership, employment, consulting or agency relationship
exists between YOU and WESTERN as a result of this Agreement.
(d) This Agreement is the entire agreement between YOU and WESTERN relating to this subject
matter. YOU shall not contest the validity of this Agreement merely because it is in electronic form.
(e) No modification of this Agreement shall be binding, unless in writing and accepted by an
authorized representative of each party.
(f) The provisions of this Agreement are severable in that if any provision in the Agreement is
determined to be invalid or unenforceable under any controlling body of law that shall not affect the validity or enforceability of the remaining provisions of the Agreement.
(g) All prices are in CA dollars and prices are subject to change without notice. WESTERN shall not be liable for any typographical errors, including errors resulting in improperly quoted prices on the Download Summary screen.
(h) YOU should print out or download a copy of this Agreement and retain it for your records.
(i) YOU consent to the use of the English language in this Agreement.

Appendix E

Permission to use Intent to Stay Questionnaire

Permission to use Intent to Stay Questionnaire

Nancy Ursel <ursel@uwindsor.ca>
Wed 10/4/2023 7:48 PM
To:William B LaJeunesse <wblajeunesse@valdosta.edu>

Delivered From External Sender

Hi Brad,

I would ask that you identify that you have altered or adapted the questions in our original instrument, but provided that you do that, I am happy to let you use the instrument. Good luck with your studies

Dr. N. Ursel
Odette School of Business
University of Windsor

Appendix F

Invitation to Participate

Invitation to Participate

Dear Invitee:

My name is Brad LaJeunesse, and I'm a doctoral student at Valdosta State University. I am also the Director of Enterprise Hosting and Storage at <school district name removed>. I have long been fascinated with the employment motivations and decisions among IT workers who choose to work within non-profit and government organizations, including K-12. I am developing a research study investigating the roles of organizational commitment and compensation satisfaction on the intention if IT workers to stay employed with a K-12 organization.

Because of the sensitivity of this topic, the survey is anonymous, and I will not record your name, IP address, or any personally identifying information. No one, including myself, will be able to associate your responses with your identity. The survey is relatively short and should take less than 15 minutes. Your participation is voluntary. There is no payment or reimbursement for participation. There are no foreseeable risks involved in participating in this study other than those encountered daily.

As an IT professional working in K-12, your participation is essential as I strive to understand the factors at play and perhaps help guide K-12 organizations to better recruitment and retention policies. Thank you for your time and consideration.

The survey is located at:
https://valdosta.co1.qualtrics.com/jfe/form/SV_3VLgmxY3lA5tsWO

Questions regarding the purpose or procedures of the research should be directed to me at wblajeunesse@valdosta.edu. This study has been exempted from Institutional Review Board (IRB) review in accordance with Federal regulations. The IRB, a university committee established by Federal law, is responsible for protecting the rights and welfare of research participants. If you have concerns or questions about your rights as a research participant, you may contact the IRB Administrator at 229-253-2947 or irb@valdosta.edu.