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The Relationship Between Flexible Work Environments and the Engagement of Healthcare Information Technology Employees

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Abstract

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MBA, Strayer University, 2009

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Doctoral Study Submitted in Partial Fulfillment

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Abstract

Lack of employee engagement can adversely impact the profitability of businesses. Healthcare information technology leaders who lack information about the relationship between flexible work environments and employee engagement are at risk of decreased employee engagement, adversely impacting companies' performance. Grounded in the social exchange theory, the purpose of this quantitative correlational study was to examine the relationship between flexible work location, flexible work hours, and employee engagement among millennial healthcare information technology (HIT) workers. Data were collected from archival records of millennial employees ($N = 2,184$) who work at a HIT organization in the southeastern United States. The results of the ordinal logistic regression were significant, $\chi^2(1) = 2321.027$, $p < .001$. In the final model, flexible work location was the only significant predictor with an odds ratio of 2.44. A key recommendation is for leaders to provide opportunities to increase the work-life balance, including flexible work schedules, increased vacation time, additional benefits, and outside work activities where team bonding can occur. The implications for positive social change include the opportunity to create a renewed focus on work flexibility and work-life balance for the next generation of employees. Improved quality of life may increase employee engagement and retention, which could contribute to local communities through higher employment levels and social support programs funded through increased tax revenues.

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Dedication

This doctoral study is dedicated to my family, who has supported me in all things. To Patrick, thank you for always supporting me and sharing this experience with me. To Elijah, thank you for motivating me to continue to pursue my dreams. To Lee, without you I would never have finished. To Andrew Jr., thank you for always being right by my side cheering me on. I would also like to thank my parents, Andrew Sr. and Shirley, for being the best parents and role models I could have.

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Section 1: Foundation of the Study

Background of the Problem

Many participants in the current workforce, particularly the millennial generation, value workplace flexibility (Absalyamova & Absalyamova, 2015). Management of millennial employees requires careful consideration for the generation-specific factors that influence their work style, performance, motivation, and other attributes, such as workplace flexibility (Miller, 2016; Miscovich, 2017). It is important for organizations to adjust their policies and practices to accommodate the varying skills levels and job requirements of their employees because it benefits both the organization and the employees; a lack of attentiveness to employees' needs can decrease job satisfaction as well as performance (Speitzer, Cameron, & Garrett, 2017).

Organizational leaders and managers can take many steps to improve employee engagement, although some employee-based factors that impact their engagement cannot be mitigated (Smit, Maloney, Maertz, & Montag-Smit, 2016). Coaching, training, job flexibility, and improved work-life balance improves millennial workers' engagement and motivation (Kultalahti & Viitala, 2014). The disengagement of individual employees can promote others' disengagement if proper relational structures are not in place (Samnani, Salamon, & Singh, 2014).

Although the existing literature provides broad insight into how flexible work hours, flexible work location, and employee engagement are related, there remains a lack of consensus on how work location and flexible work hours influence employee engagement (Thompson & Gregory, 2012). Managers are often not knowledgeable about

how these factors are related or do not apply this knowledge to millennial worker

engagement strategies (Ferri-Reed, 2014).

Problem Statement

Lack of workplace flexibility, specifically flexible work location and flexible

work hours, can result in decreased employee engagement (Blount, 2015), especially

among millennial generation employees (Nolan, 2015). Lost productivity due to lack of

employee engagement costs U.S. businesses approximately $500 billion annually

(Zakaria, Idris, & Ismail, 2017). The general business problem in this study was that a

lack of workplace flexibility can result in decreased employee engagement, adversely

impacting companies' performance. The specific business problem was that some

healthcare information technology (HIT) leaders lack information about the relationship

between (a) flexible work location, (b) flexible work hours, and (c) employee

engagement among millennial generation workers.

Purpose Statement

The purpose of this quantitative correlational study was to examine the

relationship between (a) flexible work location, (b) flexible work hours, and (c) employee

engagement among millennial-generation HIT workers. The independent variables were

flexible work location and flexible work hours. The dependent variable was millennial

employee engagement. The target population was millennial employees, born 1981-1997.

The target population came from within a publicly traded HIT organization with locations

in the southeastern United States. Improving worker engagement could lead to improved

general economic uplift (Bedarkar & Pandita, 2014; Ferri-Reed, 2014). Improved worker

engagement could also lead to better overall health and well-being for employees due to improved job satisfaction and better work-life balance (Nam, 2014; Walker, 2014).

Nature of the Study

I selected a quantitative correlational study to analyze the relationship between (a) flexible work location, (b) flexible work hours, and (c) employee engagement among millennial generation workers. Quantitative research involves the testing of one or more hypotheses on variables' relationships or differences through statistical methods (Bryman, 2016). I used archival data to determine whether a relationship exists between the independent variables of flexible work location and flexible work hours, and the dependent variable, millennial employee engagement. Specifically, I attempted to determine whether the two independent variables could lead millennial employees toward better work engagement (i.e., through work flexibility, employees might gain a better sense of value from their work, greater overall work satisfaction, and/or feel adequately challenged to maintain good work output). On the other hand, researchers use qualitative studies to explore why or how the target population experiences a phenomenon (Silverman, 2016). Since I did not explore a phenomenon, the qualitative method was not appropriate for this study. The mixed-methods approach contains both a qualitative and a quantitative component (Bryman, 2016). Because there was not a qualitative component to this study, the mixed-methods approach was not suitable.

Researchers use the correlational design to determine whether a significant relationship exists among the studied variables (Privitera, 2014). I selected a correlational design because the purpose of this study was to determine the relationship between two

independent variables and one dependent variable. Correlational designs are also useful

for determining the strength of a relationship through statistical analysis (Privitera, 2014).

Using a correlational design could help determine whether the two independent variables

might predict employee engagement by providing avenues for better work satisfaction,

autonomy, and positive challenges, but also to what degree each independent variable

contributes to predicting such engagement. Researchers use causal—comparative and

quasi-experimental research to examine possible cause–effect relationships among the

variables (Bryman, 2016). I did not attempt to predict what variables might predict

employee engagement; for that reason, comparative and quasi-experimental research

were not appropriate for this study.

Comparative/quasi-experimental types of design are similar to true experiments,

but with some key differences. The experimenter identifies the independent variables and

the experimenter does not manipulate them. The effects of the independent variables on

the dependent variable are measured (Bryman, 2016). The experimenter does not

manipulate the variables or measure causal effects in a correlational design (Privitera,

2014). Rather, the experimenter studies the unmanipulated variables to identify a

potential relationship between them and the dependent variable (Privitera, 2014). The

purpose of this study was to examine the relationships among the variables, and not to

examine possible cause-effect relationships among them. Cause and effect quantitative

research designs were not appropriate this study. The purpose of this study was to obtain

and analyze secondary data to examine the significance of the relationship between

flexible work location, flexible work hours, and millennial employee engagement. A correlational design was most appropriate for meeting this purpose.

Research Question

The purpose of conducting this study was to answer the following research question and to test the hypotheses. The research question for this quantitative study was: What is the relationship between (a) flexible work location, (b) flexible work hours, and (c) employee engagement among millennial-generation HIT workers?

Hypotheses

The following hypotheses were tested to support the research question regarding the nature of the relationship between (a) flexible work location, (b) flexible work hours, and (c) employee engagement among millennial generation workers in a HIT organization with locations in the southeastern United States.

Null Hypothesis ($H_0$1): A statistically significant relationship does not exist between (a) flexible work location, (b) flexible work hours, and (c) employee engagement among millennial generation HIT workers.

Alternative Hypothesis (H_a1): A statistically significant relationship does exist between flexible work location, flexible work hours, and employee engagement among millennial generation HIT workers.

Theoretical Framework

The theoretical framework for this study was Blau (1964) and Emerson's (1976) social exchange theory. Its premise is that human interactions take place and are sustained through macro and microstructures that govern social exchanges in the

workplace (Blau, 1964; Emerson, 1976). If each party finds some benefit in the

exchange, the parties will continue the interaction or relationship (Emerson, 1976).

Emerson concluded that workers exchange their time and skills for monetary gain,

improved social status (such as providing for themselves and their families, purchasing

goods, etc.). New work environments, and the millennial workforce, in particular, tend to

place greater demands on what classifies as a *fair exchange* (Hayes et al., 2015;

Mendelson, 2013). Mendelson explored the differences between the demands of

millennial employees and older generational workers. Millennials are better at

multitasking and working autonomously than other generations. Millennials are also

more adept with technology, often opting for virtual rather than in-person contact.

Mendelson determined that millennials put much more emphasis on a good work-life

balance and flexibility within the work environment. I expected that using social

exchange theory as the lens for this study would make it possible to examine how

millennial employees' engagement is related to flexible work hours and flexible work

location because the focus of social exchange theory is with social exchanges in the work

environment and how active, present, and engaged employees are during work

interactions and activities (Murdvee, 2009).

Operational Definition

The following key term provide a concise understanding of their definitions

within the context of this study:

Employee engagement: Employee engagement refers to the level of commitment,

energy, and/or active participation exuded by employees; worker engagement is affected

by many factors, and can influence a variety of employee functions, such as employee performance (Conley, Clark, Griek, & Mancini, 2016; Samnani et al., 2014).

Assumptions, Limitations, and Delimitations

Assumptions

I assumed that the age range chosen for the archival employee data used in this research accurately reflects the experiences of millennial employees. In review of the literature there are variations in the specific age range regarding the millennial generation. I assumed the broad characteristics expressed by this generation. I also assumed that at least 50 participants were sufficient to effectively determine the relationship between (a) flexible work location, (b) flexible work hours, and (c) employee engagement.

Limitations

Two limitations influenced the study. First, because I used archival data, there was no chance to clarify data anomalies or responses with participants. Second, since all data were from the HIT sector, further research is required to determine if the results are consistent with the broader millennial workforce.

Delimitations

Several delimitations helped to narrow the scope of this research. This study focused on millennial employees from a single organization in the HIT sector. I did not measure the effect size or manipulate the variable. The two independent variables that represented workplace flexibility in this study were flexible work location and flexible work hours. The dependent variable was employee engagement.

Significance of the Study

Millennials are quickly becoming the majority workforce (Becton, Walker, & Jones-Farmer, 2014; Nolan, 2015; Oldham & da Silva, 2015). With their increasing numbers have come changes in traditional business operations—from technological advancements and potentially higher rates of employee turnover to increased emphasis on employee benefits and flexible working conditions (Absalyamova & Absalyamova, 2015; Ertas, 2015; Nam, 2014). The trend toward virtual or remote work is also steadily increasing, requiring managers to regularly manage and ensure employee engagement in the virtual realm (Absalyamova & Absalyamova, 2015; Jones, 2017; Spector, 2017). This study's findings could have a significant business impact by identifying any significant correlations between work environment, work time flexibility, and employee engagement. Managers may be better able to understand what work environment improves employee engagement, as well as whether work-hour flexibility is related to improved millennial worker engagement. From this understanding, businesses and managers might be better able to adopt and implement strategies and policies on work environment and flexibility to improve employee engagement. There is a clear link between employee engagement and organizational success, including increased productivity, better customer relations, and increased profitability (Ozcelik, 2015; Sibanda, Muchena, & Ncube, 2014). Finding significant correlations between flexible work location and flexible work hours could explain ways to increase employee engagement, increase millennial worker productivity, and potentially increase company profitability over time.

Improved worker engagement could also lead to social change, with workers demonstrating higher levels of job satisfaction and improved work-life balance (Nam, 2014; Walker, 2014). Both job satisfaction and work-life balance could lead to lower stress and better overall well-being (Nam, 2014; Walker, 2014). Successful companies could (then?) employ more workers and contribute more significantly for the benefit of economics and society (Bedarkar & Pandita, 2014; Ferri-Reed, 2014).

A Review of the Professional and Academic Literature

The purpose of this quantitative, correlational study was to examine the relationship between (a) flexible work location, (b) flexible work hours, and (c) employee engagement among millennial generation HIT workers. The specific business problem was that some HIT leaders lack information about the relationship between (a) flexible work location, (b) flexible work hours, and (c) employee engagement among millennial generation workers. Although existing literature lends broad insight into how flexible work hours, work location, and employee engagement are related, there remains a lack of consensus on how work location and flexible work hours influence employee engagement. Additionally, managers are often not knowledgeable about how these factors are related or they do not apply this knowledge to millennial worker engagement strategies.

In order to find articles relevant to the topic of the present study I searched the Google Scholar, ProQuest, EBSCOHost, Elsevier, and JStor databases. The following search terms and word combinations were used: *millennial employees, workplace flexibility, flexible work hours, virtual workplace, work environment, remote workplace,*

work, employee engagement, manage, and *teleworking*. Eighty-seven sources were included in this literature review. Some were doctoral studies because virtual and remote workplaces and the emergence of millennials entering the workspace have arisen in recent years. The majority came from peer-reviewed journals; 54 (62%) of the studies were published between 2015 and 2019.

Discussion of the theoretical framework starts the review. Next comes a review of workplace flexibility, worker engagement, management strategies to increase worker engagement, and managing millennial workers. After the review, a conclusion is provided. The literature gap will also be discussed, and reasoning for this current study will be presented in the review.

Theoretical Framework

Social Exchange Theory

The theoretical framework for this study was Blau (1964) and Emerson's (1976) social exchange theory. The premise of social exchange theory is human interactions take place, and are sustained, through exchanges (Emerson, 1976). As long as each party finds some benefit in the exchange, each party will continue the interaction/relationship (Emerson, 1976). In a work context, such exchanges occur when employers are exchanging money and resources (in terms of salaries, health benefits, etc.) for services (such as the completion of projects) from workers to increase profits and competitiveness (Hayes et al., 2015). Workers, in turn, exchange their time and skills for monetary gain, improved social status, and so on, such as providing for themselves and their families, purchasing goods, etc. (Emerson, 1976).

The new work environment, and the millennial workforce, in particular, tend to put greater demands on what classifies as a *fair exchange* (Hayes et al., 2015; Mendelson, 2013). Mendelson explored differences between the demands of millennial employees and older generational workers. The researcher reviewed previous research highlighting the differences between, and management of, multigenerational workforces. From the review, Mendelson established the gaps between the generations had led to widening political, social, and economic structures, with millennials often needing to *catch-up* with the more economically stable older generations. This attempt at minimizing the economic gap led to millennial workers often seeking more challenging and diverse employment opportunities (Mendelson, 2013). Millennials were also more inclined toward professional development training than their older counterparts. The less reliable economic, political, and social climate millennial workers find themselves, were exposed in their formative years, also makes them more susceptible to moving jobs when perceived better opportunities arise. Millennials are better at multitasking and working autonomously. Millennials are also more apt with using technology, often opting for virtual rather than in-person contact. Mendelson (2013) also found millennials put much emphasis on a good work-life balance and flexibility within the work environment.

Generational differences in younger employees' expectations for their employers include desiring flexible hours and the option of telecommuting (Laine, 2017). Managers often tend to push against such demands or fail to properly implement new technologies to allow such flexibility, as managers have less control/supervision over their workforce, they can negate their own side of the exchange in the risk of lower productivity, higher

employee turnover, and consequent lower profits (Mendelson, 2013; Stewart, Oliver, Cravens, & Oishi, 2017). Basing this study in social exchange theory illuminate on how millennial employees' engagement during social exchanges in the work environment, or how active and present millennials are during work interactions and activities, are impacted by schedule flexibility and work location (Murdvee, 2009). The use of this theory within this current study was also supported by other worker-manager studies used the social exchange theory to frame their own studies or elaborated on the theory in relation to working relationships (Northouse, 2018; Roux, 2017). The theory was not used to understand dynamics within the virtual/remote work setting; hence, this study will not add to the theory. This theory helped the researcher to illuminate on what Blau (1964) and Emerson (1976) referred to as macro- and microstructures governing social exchanges in the workplace. Macrostructures refer to the larger structures governing society and social interactions, such as the political landscape or larger economic systems (Murdvee, 2009). Businesses form part of the microstructures, which make up such macrostructures (Murdvee, 2009). Other microstructures include individuals' interactions with one another, interpersonal and cross-cultural interactions, education institutions, and other aspects make up a society (Murdvee, 2009).

Workplace Flexibility

According to Absalyamova and Absalyamova (2015), many participants in the current workforce, particularly the millennial generation, value workplace flexibility; in many cases, virtual or remote work offers much-desired worker flexibility and mobility. The authors explored current work trends pertaining to work environments, work habits,

work requirements, and similar topics across many industries. The authors found that remote and other forms of flexible employment, such as offering employees flexible work times, were on the increase. Work arrangements were due, in part, to the changing landscape of work requirements in a post-industrial world. In modern society tends conducted work online or via the phone.

Absalyamova and Absalyamova (2015) found there were few structures and consistent policies within companies or across industries to effectively monitor remote workers or properly the potential positives and negatives of such work on socioeconomic aspects. One of their main findings was younger employees were more likely to adopt flexible and/or remote work options, and this often led to increased worker mobility and lower organizational loyalty (Absalyamova & Absalyamova, 2015). These findings lend insight into the benefits of a virtual workplace, as well as the type of employees who are the most likely to appreciate attributes of remote work.

When addressing the value of workplace flexibility, Speitzer et al. (2017) noted flexibility does not solely relate to work hours. Speitzer et al. conducted a literature review on alternative employment agreements. Their review covered a decade of academic work on alternative employment, noting how flexibility was a key element of these kinds of arrangements. Flexibility was valued in relation to work hours, work location, and employment relationships. All three factors tended to benefit more highly skilled workers who actively chose alternative arrangements. Lower skilled workers who were reliant on organizational policies and practices were often less successful in gaining and maintaining work or a steady income. Organizational leaders must adjust their

flexibility policies and practices to accommodate the varying skills levels and job requirements of their employees (Speitzer et al., 2017). Similar to the findings from Speitzer et al. (2017) study, much of the literature concerning flexible workplaces has highlighted many benefits and disadvantages of remote and/or distributed workplaces and may depend on the specific individual seeking employment.

The following subsections will contain discussion of two types of workplaces, which are nontraditional by virtue of the degree of flexibility the workplaces can provide employees. First, I will discuss virtual/remote workplaces, followed by distributed workplaces. While these types of workplaces offer some similar benefits and disadvantages, the nuanced differences between them can be highly influential concerning their suitability for different types of firms.

Virtual or remote workplaces. Virtual, or remote workplaces exist outside of a corporate office space. Employees working remotely can usually work from wherever there is access to a phone, Internet, or other technology, which facilitates the work outcome (Absalyamova & Absalyamova, 2015). Use of technology in a virtual workplace context could improve employee creativity and innovation (Oldham & da Silva, 2015). Using a quantitative approach, Oldham and da Silva established in order for technology to positively impact innovation and creativity in the work setting, it had to be used in conjunction with three factors: worker access and exposure to new and comprehensive data, full worker engagement, and organizational support. Technology can provide the necessary support structures and information platforms to assist in these three areas, particularly in the remote work setting.

Similarly, Carlson, Carlson, Hunter, Vaughn, and George (2017) determined technology could assist in team productivity, especially in the virtual workplace setting. Carlson et al. recruited 365 virtual team members in order to determine the effect of instant messaging on team cohesion and dynamics, and how such factors impacted on virtual team effectiveness. Team cohesion and openness were key elements in producing effective and productive virtual teams. Carlson et al. noted clear and efficient communication channels were necessary to ensure team cohesion. Such communication channels could also benefit the training and support of remote workers. Such training and support, in turn, also worked to improve team effectiveness and dynamics, as team members would be better equipped to address their specific work requirements as well as being better able to communicate and work with other team members. Thus, instant messaging could be an important tool in developing and maintaining effective virtual teams (Carlson et al., 2017).

Communication was a repeated theme in Gauglitz, Nuernberger, Turk, and Höllerer's (2014) study of remote collaboration, the importance of maintaining clear communication, especially when dealing with virtual/remote workers. Other researchers have expressed concerns about the efficacy of virtual workplace communication options (Purvanova, 2014). Purvanova (2014) found there were still many negative perceptions around communication technology and resulting hesitation to fully employ virtual/remote work opportunities. This could be due to the relatively new development of the job market for virtual positions.

Raffaele and Connell (2016) highlighted the pros and cons of telecommuting on team efficiency. Similarly, Blount (2015) expressed how telecommuting and maximizing the benefits of such work was complex. Blount noted *anywhere working* was not a new concept, but with the increase and improvements in technology, this kind of working style has become more prevalent in recent years. With this shift away from more traditional work structures and environments, Blount asserted organizations' policies and practices around work-related issues and structures needed to be adapted.

By conducting a comprehensive literature review on trends in teleworking, Blount (2015) was able to better establish what kinds of effects this kind of working paradigm had on aspects of business, such as client relations, customer care, and general business operations. Specifically, Blount attempted to determine areas where teleworking had a more negative impact and suggested further research into ways of negating such negatives. Teleworkers often experienced feelings of isolation, which could negatively influence their engagement and productivity (Blount, 2015).

Gilson, Maynard, Jones-Young, Vartiainen, and Hakonen (2014) also found various benefits for virtual/remote working, especially in relation to virtual teams, but also highlighted issues surrounding such a work environment. The literature review conducted by Gilson et al. focused specifically on virtual team literature from the past 10 years. Based on their review, Gilson et al. found ten main themes, including, but not limited to, team inputs, leadership, trust, and enhancing virtual team success. Gilson et al. also highlighted these specific understudied areas for future research. Some of these suggested avenues for future research included but were not limited to, generational

impacts, team adaptation, creativity, and team member well-being. Gilson et al. purported such studies were vital in the ever-changing and ever-increasing world of and movement toward virtual (team) work. The current study will meet Gilson et al. called for additional research on the subject of virtual worker engagement, and the strategies managers might employ to maintain and/or improve such.

Coleman (2016) also emphasized the importance of noting differences between individual employees in the remote workplace. Coleman asserted managers could not manage millennial virtual/remote workers, in the same manner they would Baby Boomer virtual/remote workers, as each generation and skillset had different needs and offered different resources to the team. Coleman specifically highlighted the need for managers to assist workers in improving self-efficacy and properly manage differing power dynamics within virtual teams to gain the best results (Coleman, 2016).

Management style and business-specific characteristics may have a particularly large effect on employees working remotely (Rittenhouse, 2017; Varghese, 2017). Varghese noted how manager style and business structure could impact telecommuters. Similarly, Rittenhouse addressed how employee engagement differed between telecommuters and nontelecommuters, and management played a key role in the likelihood of both types of workers experiencing either improved or lessening engagement.

Although work-life balance tends to be important to employees in a variety of work settings and sectors, this trait may be of particular importance to remote workers (Elmer, 2015; Nam, 2014). Guinn specifically addressed how females in a healthcare

telework environment experienced such work, especially in relation to maintaining a positive work-life balance. Work-life balance for telecommuters was a recurring theme, with Roux (2017), Garr (2014), Elmer (2015), and Nam (2014), noting the need for companies who allowed telecommuting to also provide workers with the opportunity to disengage from work and spend time doing other activities.

Nam (2014) was concerned with employees' work-life balance. In particular, the influence technological developments had on this balance. Technology tended to aid the actual and perceived work-life balance of employees. Technology could also have a negative impact. Technology allowed for greater worker flexibility, autonomy, and communication. Technology also allowed for greater work intrusion into the nonworkspace, segmentation or disconnection from others, and potentially higher levels of job-related stress due to higher potential for overworking. Nam determined how workers used technology played a significant role in how effected their perceptions and levels of work satisfaction and work-life balance. Thus, when employees used technology to promote work flexibility and improve communication, employees tended to be more satisfied, and by extension, engaged with their work. Yet, when workers allowed, or when companies enforced *anytime* work, where work began to take over or intrude upon nonwork time, employees would be less satisfied and engaged. Additionally, if employees used technology to isolate themselves from, rather than contribute to, their work environment, employees also tended to report higher levels of dissatisfaction and stress. It is important employees, and companies allow technology *downtime* for workers and provide opportunities and training for workers in how to effectively utilize

technology to gain the most productivity and ensure an improved work-life balance
(Nam, 2014).

Work flexibility was primary expressed by allowing telecommuters such balance
in Elmer's (2015) study. This particularly related to the types of policies in place (Garr,
2014). Improved work-life balance could lead to better worker engagement. The *always-on* work culture common among millennials tends to undermine such engagement
(Elmer, 2015).

Distributed workplaces. A distributed workplace is similar to a virtual or remote
workplace in terms of the flexibility available to employees. According to Franck (2018),
a distributed workplace is one where the majority of employees work from wherever the
employees are the most content and productive. The notion of a distributed workplace
differs from the idea of virtual or remote employment in general with a distributed
workplace, there is typically no headquarters, and employees are often located globally.
Conversely, many times when employees hold virtual positions there is still a physical
headquarters or corporate office. Employees often need to live in proximity to the
physical office space for occasional in-person meetings, or employees work remotely a
certain number of days per week. Thus, the structure of distributed workplaces must be
set up in a unique way to make sure all, or nearly all, communication can effectively take
place through digital means.

The prerequisites required for a company to effectively operate as a distributed
workplace, as opposed to a virtual firm, make it suitable for select industries and
companies (Franck, 2018). Distributed workplaces are ideal for industries or company

objectives, which do not require in-person meetings, such as web design. Employees

working for companies operating in a distributed environment need to thrive with

infrequent interactions or guidance among team members. Communication can occur

over virtual means in a distributed environment making team building more difficult than

in traditional work environments. While a distributed workplace can offer many benefits

to the leaders of the company, leaders must also consider the cost of transitioning to a

distributed workplace if the company is not presently operating under this structure

(Franck, 2018).

      Halgin, Gopalakrishnan, and Borgatti (2015) examined the role human agency

plays when social structures and connections in distributed work environments are

established. Their study focused on a single large, multinational company who offered

software development services. Within their network of over 130,000 employees, the

Halgin et al. recruited 62 participants who were involved in the design and maintenance

of globally distributed applications. Senior managers and other random employees

provided insight during interviews concerning the influence networking and social ties

within the company had on their work. Based on these insights, a survey concerning

social networks within the workplace was designed and administered to the department of

62 employees.

      Halgin et al. (2015) found employees were the most engaged had both local and

global social ties they could rely on for advice and otherwise learn from within the

company. Additionally, while the majority of participants indicated they wanted to create

or improve their social relationships within the country across global boundaries, highly

engaged employees were motivated enough to work towards this particular goal (Halgin et al., 2015). These findings highlight employees' views of engagement with their colleagues, as well as how agency and motivation can affect employee engagement, within a distributed work environment.

Similarly, Madiedo and Salvador (2015) explored modularity and management within the distributed work environment. Modularity, within the context of this study, was defined as different components and departments of a business can be reorganized and/or combined to maximize efficiency or address other identified issues. Madiedo and Salvador examined 97 projects completed during a 7-year time span by a specific global manufacturing and engineering firm using multiple research methods. Madiedo and Salvador found both the managers' familiarity with the solution chosen by the customer and solution modularity positively affected how effectively project work was distributed. Additionally, solution modularity negatively mediated distributed work within project margins, and positively mediated project margins through distributed work (Madiedo & Salvador, 2015). Overall, these findings highlight some characteristics which indicate what kinds of multinational distributed workplaces can use solution modularity to strategically ease management issues related to the distribution of work.

In summation of this section, many participants in the current workforce value workplace flexibility, and thus, value remote workplace options (Absalyamova & Absalyamova, 2015). Technology can provide the necessary support structures and information platforms to assist with worker access and exposure to new and comprehensive data, full worker engagement, and organizational support in the remote

work setting (Oldham & da Silva, 2015). Instant messaging could be an important tool in developing and maintaining effective virtual teams (Carlson et al., 2017). Both distributed and virtual/remote workplaces can offer much-desired worker flexibility and mobility in many ways (Absalyamova & Absalyamova, 2015). It is imperative virtual organizations adjust their flexibility policies and practices to accommodate the varying skills levels and job requirements of their employees (Speitzer et al., 2017). Management style and business-specific characteristics may have a particularly large effect on employees working remotely (Rittenhouse, 2017; Varghese, 2017). Overall, existing literature concerning workplace flexibility and virtual workplaces has highlighted benefits and disadvantages of highly flexible work options.

Worker Engagement

Worker engagement refers to the level of commitment, energy, and/or active participation exuded by employees; worker engagement is affected by many factors, and can influence a variety of employee functions, such as employee performance (Conley et al., 2016; Samnani et al., 2014). Harter, Schmidt, and Hayes (2002) highlighted the role business units play in levels of employee satisfaction, engagement, and overall business outcomes. Harter et al. conducted a quantitative study of 7,939 business units/departments over 36 countries to establish to what extent business units played a role in employee engagement, satisfaction, and retention, and how such factors influenced business outcomes. Harter et al. focused in particular on how employee satisfaction translated to customer satisfaction, productivity, and profit. Additionally, the Harter et al. also studied satisfaction in relation to turnover and risk of accidents

occurring in the workplace. More satisfied, and by extension, engaged employees, reported higher levels of customer satisfaction, productivity, and profit for their unit. Engaged employees also were less inclined to leave their unit and the unit reported fewer occurrences of accidents (Harter et al., 2002). These findings highlight the interconnected nature of employee engagement, satisfaction, and performance.

Sibanda, Muchena, and Ncube (2014) substantiated Harter et al.'s (2002) ideas regarding organizational or unit structures could influence employee engagement. Sibanda et al. were interested in establishing worker engagement and its effects on overall organizational performance in Zimbabwe. The researchers conducted a mixed methods study of 50 participants. Employee engagement and organizational performance were directly connected, with high employee engagement correlated with high organizational performance, while low employee engagement correlated with low organizational performance. Company leaders attempt to improve engagement; many of the current strategies were insufficient. Failing to employ these initiatives may likely have meant even worse organizational performance. Some initiatives included human resource (HR) programs, and communication improvement attempts. Sibanda et al. suggested further improvements in these initiatives, as well as incorporating the public relations department, forming better trust between employers and employees, and providing employees with and avenues for giving feedback.

Additionally, Samnani et al. (2014) illustrated how individual disengagement could promote others' disengagement when proper relational structures are not put in place within the work environment. Samnani et al. clarified potential factors affecting

employee engagement. These potential factors can be used by workplace leaders to address points of weakness or facets of company structure do not work to facilitate engagement.

Bhuvanaiah and Raya (2014) explored employee engagement in the context of Indian workers. Bhuvanaiah and Raya highlighted how even though engagement was a commonly studied topic, a comprehensive definition of what engagement entailed still needed to be established. Bhuvanaiah and Raya attempted to define engagement in relation to related concepts such as worker well-being and performance. Engagement could be seen as an all-encompassing term held within its considerations related to how well workers performed, their level of job satisfaction, and their ability to self-manage. Successful employee engagement could translate to organizational success. It was important for businesses to invest time, energy, and resources into ensuring improved levels of employee engagement, particularly in relation to addressing its individual parts (such as worker well-being and skills development). Employee engagement was oftentimes directly proportional to the level organizations invested in its improvement (Bhuvanaiah & Raya, 2014).

Imperatori (2017) and Bedarkar and Pandita (2014) both looked at specific drivers and organizational practices promote or derail employee engagement from an HR perspective. Imperatori highlighted the important role HR played in maintaining and improving engagement. HR practices are important for increasing employee engagement (Thamizhselvi, 2014).

Bedarkar and Pandita (2014) noted it was important for HR managers to effectively ensure employee engagement, as engaged and productive employees could provide a much-needed competitive edge for companies in the current work and economic climate. In order for HR managers to effectively ensure worker engagement, HR managers had to understand engagement in relation to communication, work-life balance, and leadership. Good communication between organizations and leadership with their employees could lead to more engaged and participatory employees. Similarly, companies who allowed employees the opportunity to balance their work, familial, and social responsibilities could also ensure better worker wellbeing, leading to more engaged workers. Finally, leadership was a key element in gaining more engaged employees, as effective leadership could motivate employees to perform better in their work. These findings highlight specific strategies used to effectively improve employee engagement.

Sharma (2015) addressed the kinds of actions reflected employee engagement, as well as strategies to improve engagement. Sharma conducted a comprehensive literature and business document review to ascertain what constituted and could improve employee engagement. Sharma was also interested in finding out what role HR management practices played in employee engagement. The study specifically focused on the Indian workforce. Sharma emphasized employee engagement differed from employee satisfaction, motivation, and organizational culture. While it incorporated these factors, it also related to the emotional attachment of employees to their jobs, colleagues, and organization. Employee engagement is also a measurable concept, which plays out in how willing employees are to work, be productive and actively involved in work

activities, and learn and develop new skills related to their jobs. Sharma found businesses employed various techniques for improving engagement, such as team events, professional development training, sabbaticals, birthday and religious celebrations, and flexi-work from home options. Trust, honesty, and clear communication between managers and workers also assisted in increasing engagement (Sharma, 2015).

Johnson (2016), instead, sought to define disengagement actions across the varying worker demographics. Johnson conducted a qualitative study with participants who worked in the healthcare, accounting, education, hospitality, IT, office clerical, animal services, construction, and library services sectors. Johnson collected data using semi-structured interviews and found six main themes: (a) communication between leaders and employees, (b) recognition and respect from management, (c) confidence in management and rewards promised, (d) leadership quality, (e) technology, and (f) the physical environment and work completed. Out of these themes, three of these six themes affected the degree of employee engagement. These three drivers were: a lack of recognition and respect, poor leadership quality, and lacking or poor-quality communication. Johnson emphasized a need for managers to focus on the three aforementioned drivers to keep employees engaged.

Although there are many things managers and organizational leaders can do to improve employee engagement, some employee-based factors and circumstances impact employee engagement cannot be mitigated (Smit et al., 2016). Smit et al. (2016) noted when workers experienced work-family role transitions (such as young millennials moving from home into a new work environment), it was possible job performance

suffered. Improving worker self-regulation could potentially mitigate such performance dips and improve engagement during times of transition (Smit et al., 2016). In such cases where employee-specific factors affect engagement, employer support is key.

Coaching, training, job flexibility and improved work-life balance improve millennial worker engagement and motivation (Kultalahti & Viitala, 2014). Kultalahti and Viitala studied the intrinsic and extrinsic motivators of full-time millennial employees. From their qualitative, empathy-based stories approach to the research, Kultalahti & Viitala established millennials remained more motivated in their work when offered varying, interesting/challenging, and flexible work opportunities. Millennials also sought to have good relationships with both their coworkers and their leaders. As with other studies already mentioned, the idea of a good work-life balance was also important for maintaining millennial motivation. HR departments would need to adapt their policies and practices to present millennial workers with more varied and innovative work opportunities, while also providing them with the flexibility and/or leave options for a positive balance between their work and life responsibilities (Kultalahti & Viitala, 2014). Kultalahti and Viitala also highlighted the need for additional training and support structures for millennials, as many such workers actively sought career development opportunities. These findings provide insight into different workplace attributes and factors, in particular, affect the engagement of millennial workers.

Building trust and providing a platform for marginalized workers could also improve engagement (Snyder & Honig, 2016). Providing employees with opportunities to learn on the job may also improve worker engagement. Providing employees with

opportunities to collaborate with others within the company also improves engagement (Trees, 2015).

Trees (2015) conducted quantitative company screenings of over 50 companies and qualitative site visits of five companies to determine the effectiveness of two technology-based approaches to employee engagement. These two approaches were enterprise social media and gamification. Trees found almost half of the screened companies employed enterprise social media, with many others planning to adopt the technology in the near future. Such employment tended to translate to quicker information presentation necessary for millennial adaption to their new work environment. The technology also assisted in better communication and knowledge-sharing practices benefited all employees, as well as the larger company. Social networking also gave millennial workers a sense of belonging and connection to coworkers and the company, and further improved their engagement.

Similarly, over half of the companies who participated in Trees's (2015) study noted their use of gamification. Trees found this technology improved millennial collaboration and sense of belonging. Gamification also appealed to workers in other age demographics, thereby bridging potential gaps between these generations and improving overall management. Allowing millennials to interact on varying digital platforms proved to increase their engagement, interaction, productivity, and learning (Trees, 2015). These findings lend insight into how technology can facilitate employee engagement.

Ozcelik (2015) suggested using internal branding and getting millennial workers on board with the company vision could also improve their engagement. Many

companies tended to focus on external branding, as a means of appealing to current and future customers, to remain competitive in their given industry. Companies would also often focus heavily on ensuring optimal customer service and experiences, while neglecting their employees. Ozcelik believed utilizing HR to internalize the brand identity of the company and include workers into brand could greatly benefit companies in the end. Allowing employees, especially millennial employees, to feel and be actively involved in the creating, maintaining, and development of the company brand would likely lead to higher levels of employee engagement and retention. A more stable (i.e., less employee turnover) and engaged workforce could, in turn, translate to improved external branding and customer service (Ozcelik, 2015). These findings emphasize the importance of extending branding efforts to influence current and potential employees in order to improve employee engagement.

In order to determine whether efforts to improve employee engagement are warranted, employers need a means to evaluate employee engagement. Thus, Kumar and Pansari (2014) conducted a literature review, as well as extensive interviews with managers across various countries, in order to broaden their understanding of employee engagement from the manager perspective. Based on their findings, Kumar and Pansari developed a comprehensive definition of employee engagement, as well as scales for measuring employee engagement levels in different contexts. Kumar and Pansari found being better able to gauge employee engagement and identify factors at play in either improving or limiting engagement could allow managers to more effectively manage and ensure engagement in the future. In turn, Kumar and Pansari established improved

employee engagement could positively enhance service delivery, customer satisfaction, and general organizational performance. Kumar and Pansari lend insight into ways employee engagement is measured, as well as reasons why employers should consider employee engagement to be a priority.

To conclude this section, many factors affect worker engagement, and can influence a variety of employee functions (Conley et al., 2016; Samnani et al., 2014). More satisfied, and by extension, engaged employees report higher levels of customer satisfaction, productivity, and profit for their unit (Harter et al., 2002). If proper relational structures are not in place, the disengagement of individual employees can promote others' disengagement (Samnani et al., 2014). It is important for HR managers to ensure employee engagement, as engaged and productive employees provide a much-needed competitive edge for companies in the current work and economic climate. Employee engagement measures how willing employees are to work, be productive and actively involved in work activities, and learn and develop new skills related to their jobs (Sharma, 2015). Lack of recognition and respect, poor leadership quality, and lacking or poor-quality communication can cause employee disengagement (Johnson, 2016). Although there are many things managers and organizational leaders can do to improve employee engagement, some employee-based factors cannot be mitigated (Smit et al., 2016). Coaching, training, job flexibility and improved work-life balance can improve millennial worker engagement and motivation (Kultalahti & Viitala, 2014). Technology such as enterprise social media and gamification can also increase employee engagement, interaction, productivity, and learning (Trees, 2015). Improved employee engagement

can positively enhance service delivery, customer satisfaction, and general organizational performance (Kumar & Pansari, 2014).

Managing Millennial Workers

As with any generation of the workforce, management of millennial employees requires careful consideration of generation-specific factors influence their work style, performance, motivation, and other attributes (Miller, 2016; Miscovich, 2017). The following subsections will contain discussion of different considerations surrounding the management of millennial employees. First, millennial worker retention will be discussed. I will discuss generational differences related to millennial employees followed by management styles suitable for millennial employees.

Millennial worker retention. Retaining millennial workers often involves considerations that do not necessarily impact older generations of employees (Njemanze, 2016). Miller (2016) noted many companies are opening satellite offices in or near to large metropoles to compete with other companies and retain and appeal to millennial workers. Part of companies' reasoning for such relocation or expansion is, especially younger workers, tend to live and operate more in urban areas. Thus, by opening a satellite office, smaller companies can gain access to larger pools of potential employees and improve their chances of hiring young talent benefiting their businesses (Miller, 2016). Njemanze also presented considerations for rural organizations concerned with retaining millennials. Specifically, how older millennials were beginning to view rural communities and business opportunities in a more positive light, and companies could consider ways of appealing to this slightly older demographic. Both strategies achieve a

similar purpose, although this strategy differs from what Miller proposed as a means to retain millennials.

It should be noted that while millennials make demands on companies related to flexibility and other benefits (Giessner et al., 2017; Petrucelli, 2017) millennials tend to be less likely to take advantage of such benefits than employees are led to believe (Laine, 2017; Walker, 2014). Millennials are even less likely to use their benefits than their other generational cohorts (Becton et al., 2014; Howe, 2014). Thus, merely providing millennials with the option of additional benefits may work to increase their likely long-term retention (Laine, 2017). The notion that millennial employees are not using provided benefits can lead to lower engagement and productivity, so employers need to encourage millennial workers take advantage of the benefits their companies offer (Walker, 2014).

Walker (2014) conducted a quantitative study to determine to what level employees utilize their employment benefits. Walker found a small number of employees within the chosen study site made regular use of their benefits. Increasing benefit savings and the types of benefits offered to employees made little to no impact on improving benefit use. Walker noted this was problematic as there was a direct correlation between employee benefit use and productivity. Employees who made regular use of benefits such as medical insurance, time off or flexible work hours tended to be more engaged and productive during work hours. Conversely, workers who did not utilize such benefits often reported higher levels of disengagement, stress, and unproductivity. Employee benefit use can have a direct impact on the overall performance and financial success of a

company (Walker, 2014). It is important employers ensure employees make use of their available benefits as much as possible.

Along this line of thought, Howe (2014) explored the benefit expectations and requirements millennials have when determining what companies to stay with long-term. Utilizing previous research on the topic of millennial workers and their benefit requirements, Howe found millennials tended to be more thorough and demanding in relation to the kinds of benefits are required from their employers. For example, when compared to their other generational cohorts, such as Baby Boomers or Generation X workers, millennials tended to be more cautious when choosing their financial and investment portfolios and were often more focused on providing for their long-term needs than the other generations.

Howe (2014) also found millennials also tended to place a far higher value on medical benefits than Generation X-ers. Yet, of the three cohorts, millennials were the least likely to make use of their benefits. This combination of higher value placement and thoroughness of benefits considerations with the lack of or refusal to utilize said benefits, means managers and benefits companies need to offer low-risk, high-return options for their millennial workers. Managers also need to put policies in place ensuring millennials employ at least some of their benefits—such as taking sick days—as their failure to do so may negatively affect their immediate work lives, even if the employee might reap higher rewards later on (Howe, 2014).

Nolan (2015) asserted companies need to put structure and plans in place for meeting the needs of, and retaining, millennial workers over the long-term as millennials

will make up the majority of the workforce. This was especially important in light of millennials' propensity for turnover, leading to increased costs for a company. Furthermore, millennials tended to exhibit high levels of entrepreneurialism, making it even more important for established companies to find ways of remaining relevant and competitive in the face of new and innovative companies. Additionally, by not keeping up with industry and worker changes, and by not providing millennial employees with the kinds of benefits and support required, it was likely companies would lose employees to those companies who did provide such benefits and support. Nolan established in order for companies to mitigate the high cost of millennial employee turnover, and improve employee satisfaction and retention rates, they should focus on five key aspects. These aspects are work-life balance, internal branding and meaningful employment, benefits and opportunities for advancement, and managerial training for both managers and employees (Nolan, 2015).

Other suggestions for improving the retention of millennial employees have been identified through research include motivating, developing, and properly managing the growing millennial workforce (Hobbs, 2017). McGinnis and Ng (2015) also noted a clear way of retaining millennials was to provide them with proper monetary compensation, as when this demographic did not feel like pay is fair, millennials would easily go to a different company where the pay was better. These findings highlight the unique priorities of the millennial workforce (Hobbs, 2017; McGinnis et al., 2015).

Managing worker resignations could prevent a cycle of employee turnover (Klotz & Zimmerman, 2015). A company with higher turnover tends to breed higher turnover.

Thus, in such a situation, it was imperative for employers to efficiently identify and address the initial reasons for employee turnover in order to end the cycle (Klotz & Zimmerman, 2015).

Ertas (2015) also pointed out managers should be aware of millennial employees heightened turnover intentions in relation to the general workforce, and managers should navigate around the issue, as this intention often does not correlate with the work environment itself, but rather with millennials' desire to "do more things." Their study provided valuable insight into what motivates millennial workers and their intentions to leave an organization. Ertas focused particularly on millennial employees within federal services. Ertas noted, especially within federal services, older employees were retiring, and managers needed to find ways of appealing to and retaining younger workers. In order to ascertain how managers might attempt to do so, Ertas compared millennial workers with their older counterparts to see if and where the two generations differed in relation to their approaches to federal work.

Ertas (2015) found millennials were generally more inclined to express a desire to leave their current employment than older workers. Specific work attributes did not ground their intention to leave. Millennials are likely to leave, or at least hold the intention to leave, either due to a wide variety of factors, or simply for the sake of leaving in and of itself (Ertas, 2015). Managers need to find ways of adapting to a higher turnover worker generation. Managers also need to address a number of factors, from benefits to compensation to motivation and training, so as to attempt retaining millennial workers over the long-term.

Work-life balance is an essential factor millennials consider when determining whether to stay with a company or seek employment elsewhere (Deery & Jago, 2015). Deery and Jago (2015) explored means for managing workers and improving worker retention. They conducted their study within the hospitality industry and consisted the study of a meta-analysis of the current literature. In particular, Deery and Jago studied elements of talent management, work-life balance, and retention strategies. Good work-life balance was the main source for worker retention, and employees who felt they had a good work-life balance were also easier to manage, as well as more productive and engaged during work hours. Deery and Jago also noted how job satisfaction and organizational commitment could influence work-life balance. Thus, in order to maintain and effectively manage workers, it is important for organizations and managers to ensure workers receive opportunities to balance their work and life commitments.

Generational differences. Managers cannot manage millennial workers in the same way they would, and have, managed Baby Boomers and Generation X (Dionida, 2016; Kilber, Barclay, & Ohmer, 2014; Lyons & Kuron, 2014). Thus, researchers have explored how the generational differences exist between different age groups affect the workplace. Ferri-Reed (2014) attributed the need for a change in management style to how millennials were raised to be more familiar with parental and authority figures, so the more traditional/hierarchical approach to management did not translate well for this new generation of workers. Part of this reasoning was based in how millennials had been raised to be more tech-savvy, had not been exposed to overly autocratic leadership styles in their schools and homes, and were less likely to take initiative due to having had

greater levels of parental and teacher support and supervision in their formative years.
Ferri-Reed suggested managers adjust their leadership approaches to provide more
support and guidance to eventually allow millennials initiative-taking opportunities.

Thompson and Gregory (2012) came to similar conclusions concerning millennial
employee management and generation-specific attributes. They asserted adapting
management styles could assist in improving millennial worker retention rates, as well as
such employees' interest and motivation in their jobs. Thompson and Gregory also
believed it was more likely organizations would be able to gain the most out of their
millennial staff, when the organizations adapted their leadership and business structures.
They highlighted how accommodating millennial workers' desire for job flexibility and
mobility, providing additional guidance, and support for millennials entering the
workplace could improve millennial output.

Furthermore, Thompson and Gregory (2012) noted the importance of
understanding and approaching millennials and their particular management needs in
relation to their formative political, economic, educational, and social contexts. The
authors established that managers would need to adapt their management style to better
suit a demographic used to economic instability, which does not perform well under
autocratic leadership or excessively hierarchical structures, and which tend to be more
highly educated and technological reliant than their previous cohorts. By making such
adjustments, it was more likely organizations would gain more motivated, engaged, and
loyal millennial workers.

Differences between the generations in terms of what each generation desired from work, how each generation approached work, and what each generation offered to organizations is highlighted in research (Becton et al., 2014; Costanza & Finkelstein, 2015; LaCore, 2015; Lyons & Kuron, 2014). Becton et al. (2014) and Costanza and Finkelstein (2015) looked particularly at the stereotypes related to millennials, why those stereotypes exist, and how such stereotypes could impact organizations.

Becton et al. (2014) focused on the differences between Baby Boomer, Generation X, and millennial workers in the workplace. Using stereotypes of each generational cohort, Becton et al. surveyed 8,040 workers across the differing generations at two companies and presented three hypotheses. The first purported Baby Boomers were less likely to desire job mobility (such as remote work) than the younger two cohorts. The second related to Baby Boomers being more likely to comply with business practices than the younger demographics. The third hypothesized Baby Boomers and millennials were more likely to work overtime than Generation X workers.

Becton et al. (2014) found while all hypotheses were supported, with the first and third being more supported than the second, the support from the surveyed workers was smaller than anticipated. While the stereotypes of the generations were true in this context, the differences between the generations and the ultimate outworking of the studied stereotypes were smaller than the stereotypes initially suggested. These findings indicate managers may be able to approach management of different generations in less distinctive and more uniform ways.

Allison and Mugglestone (2014) noted how millennials could bring a creative and tech-savvy approach to work, and employers would have to embrace this approach in order to remain competitive. Winograd and Hais (2011) also found millennial creativity and innovation in business could cause disruptions in more traditional institutions, such as finance, and managers had to find ways of working with, rather than against, these workers. McDonald (2015) found much of the millennials' reliance on technology came from a lack of economic opportunities. Many were more virtually mobile than physically mobile as a result of lower employment levels in more traditional business settings. Thus, in order for millennials to become more economically mobile, businesses would need to find new employment strategies to get millennials back into offices or begin embracing virtual/remote employment. Gibson and Sodeman (2014) further asserted managers needed to embrace new communication strategies using technology to appeal to millennials.

Due to fewer job opportunities in light of the Great Recession, LaCore (2015) believed in order to improve their work contributions millennials needed additional support. LaCore approached employee needs and support from an HR perspective. LaCore, as Becton et al. (2014) previously stated, while there were clear differences between the different generational cohorts, these differences were less marked than stereotypes would have one believe. For example, millennials and Baby Boomers were both teams orientated and could often work better together than with the more individualistic Generation X cohort. LaCore also found Baby Boomers were staying in jobs and leadership positions longer than previous generations. Increased tenure limited

growth and upwards movement potential for their Generation X and millennial coworkers. To counter this negative and potentially lower millennial turnover, LaCore suggested managers and HR tap into the millennial worker's desire for mobility and flexibility. Allowing millennial employees travel opportunities, or relocations to different offices in other parts of the country or world, could not meet this particular need of the millennial worker, but may be more cost effective for businesses as rotating or relocating staff was less expensive than hiring and training up new ones (LaCore, 2015).

Hoffman (2017) further noted millennial workers' immersion in technology did not discount their need to be involved in environmental and social issues. Thus, providing millennials with opportunities to connect with others and communities in the real world could further improve companies' standings. Establishing what millennials value, outside of the work/money-making environment could also stand a company in good stead, should company provide these workers with opportunities to advance in these areas—particularly in relation to millennial skills development (Hoffman, 2017).

Stewart et al. (2017) promoted the idea of embracing generational differences, rather than attempting to force millennials to conform to traditional organizational structures, when attempting to manage this demographic successfully. Stewart et al. attempted to contextualize negative millennial stereotypes and provide evidence for how and why millennials' negative stereotypes might not be very true, and how a company could benefit from using such stereotypes. In order to do so, Stewart et al. conducted a comparative study of the three generational cohorts currently within the employment realm: Baby Boomers, Generation X-ers, and millennials.

Stewart et al. (2017) explored generational differences in relation to organizational commitment and workplace culture. Three cohorts, millennials were the least likely to associate or correlate organizational commitment with workplace culture. Millennials did not equate organizational loyalty with bringing benefit to the workplace or influencing their work ethic. Instead, millennials focused on and defined their employment contributions by their job performance and fulfilment of their specific duties, their motivation for personal, project, and business success; and the kinds of benefits or rewards. Stewart et al. suggested adapting current performance evaluation metrics to focus more on how millennials contribute in these manners. Stewart et al. also suggested creating more transparent and rewards-based companies and initiatives as a means of better engaging millennial employees (Stewart et al., 2017). These findings highlight generational differences in the way employees think.

Management styles. Management style can greatly impact how millennial employees work, and certain management styles may be more suitable for millennial workers than others (Graham, Daniel, & Doore, 2015; Pullan, 2016). Graham et al. (2015) stated managers' leadership style played a significant role in millennial worker engagement and retention, particularly within virtual/remote team settings. Transformational leadership approaches tended to inspire higher levels millennial employee engagement in such settings. This substantiated Breevaart et al.'s (2014) assertion that transformational leadership could gain the best results from employees over the long-term.

Pullan (2016) came to similar conclusions, noting in order to gain the best out of virtual/remote (millennial) workers, managers had to become more people-focused rather than trying to employ the newest technologies in hopes it would improve worker engagement and productivity. This substantiated DeVaney's (2015) findings that socially conscious, team-oriented leadership tended to lead to more successful millennial worker management. Espinoza and Ukleja (2016), too, highlighted in order to avoid frustration with this younger worker demographic, managers would need to adapt to the changing working culture spearheaded by this group.

Summary

The purpose of this quantitative correlational study was to examine the relationship between (a) flexible work location, (b) flexible work hours, and (c) employee engagement among millennial-generation HIT workers. The theoretical framework for this study was Blau (1964) and Emerson's (1976) social exchange theory. The emergence and progressive dominance of millennials in the workforce is shifting the notions of both the workplace and work interactions. This is particularly true in relation to their propensity toward flexible work opportunities with regard to hours and work location. Managers need to find innovative ways of engaging this changing workforce, to remain competitive. While researchers have explored how various factors affect employee engagement, there remains a lack of consensus concerning how work location and flexible work hours influence employee engagement. The study addressed the existing research problem, provide practical, first-hand accounts of how millennial worker engagement influences flexible hours, and work location. The lack of existing journal

articles on this topic also speaks to how new this research area is and calls for additional studies into managers' engagement of millennial employees. Section 2 will provide details of the chosen methodology for this study.

Transition

This section described the foundation of this research, including the background of the problem, the problem and purpose statements, the nature of the study, the research questions and hypotheses, the theoretical framework, and operational definitions relevant to this study. I discuss the assumptions, limitations, and delimitations, in addition to the significance of the study and a review of relevant literature. The following section will contain a detailed explanation of the research methods used during this project, including the role of the researcher, research method, research design, and data analysis technique. Section three will then include a presentation and discussion of results.

Section 2: The Project

This section will provide further detail about this project. This section includes the (a) purpose statement, (b) the role of the researcher and participants, and (c) research method and design. Section 2 also contains the population and sampling procedures, ethical research procedures and the data collection instrument. The data collection and data analysis techniques, are included as well as the study validity. A summary and transition will conclude this section.

Purpose Statement

The purpose of this quantitative correlational study was to examine the relationship between (a) flexible work location, (b) flexible work hours, and (c) employee engagement among millennial-generation HIT workers. The independent variables were flexible work location and flexible work hours. The dependent variable was millennial employee engagement. The target population was millennial employees born 1981–1997. The target population came from within a publicly traded HIT organization with locations in the southeastern United States. The implications for positive social change include the potential to influence the way business leaders increase millennial engagement, thereby increasing the productivity and profitably of U.S.-based organizations in a competitive global marketplace. Improving worker engagement could lead to improved general economic uplift (Bedarkar & Pandita, 2014; Ferri-Reed, 2014) and to better overall health and well-being for employees, due to improved job satisfaction and better work-life balance (Nam, 2014; Walker, 2014).

Role of the Researcher

During this quantitative correlational study, I collected and analyzed archival data (Bryman, 2016). I did not know the individuals. The identities of the individuals remained confidential within the published study. I did not have personal contact with any of the participants. I handled the participants' data in an ethical manner. Because the archival data contained no personally identifiable information, other than employee identification numbers, the use of pseudonyms for employee anonymity and confidentiality was not necessary. I gathered all necessary permissions from the participating organization prior to data retrieval.

The 1979 *Belmont Report* provides guidelines to ensure that human subjects of research receive ethical treatment and that members of disadvantaged groups are adequately protected (Office of the Assistant Secretary for Health, n.d.). The study does not include human subjects through interviews, surveys, or experiments, and the *Belmont Report* guidelines regarding human subjects are satisfied.

Participants

I chose millennial employees who work at a HIT organization for this research. Archival data from an employee engagement survey of 2,184 millennial employees were included in this research. For the purpose of this research, the participants were members of the millennial generation if born between 1981 and 1997. As there are differing opinions as to this cohort's classification, such as the years related to the millennial generation, I chose the years 1981-1997 to ensure that employee data would come from employees who had already been working for 3 or more years. I chose the millennial

generation for this study because it represents the highest rates of flexible work location and flexible hours (Ferri-Reed, 2014). Additionally, this cohort reports lower levels of engagement than the general populace, making this cohort the ideal group for ascertaining links between employee engagement, flexible work location, and flexible work hours (Shuck & Reio, 2014).

Research Method and Design

Research Method

I conducted the research using a quantitative methodology to analyze the relationship between (a) flexible work location, (b) flexible work hours, and (c) employee engagement among millennial generation workers. Quantitative research includes inquiry into a problem and the testing of a hypothesis composed of variables and statistics (Bryman, 2016). In this quantitative correlational research study, I used archival data to determine whether a relationship exists between the independent variables of flexible work location and flexible work hours, and the dependent variable, employee engagement. A qualitative methodology was not effective for meeting this study's purpose because exploring why or how the target population experienced the phenomenon was not the goal of study (Silverman, 2016). A mixed-methods methodology did not meet the purpose of this study because a qualitative component was not necessary to determine whether there are relationships between the variables included in this research (Bryman, 2016).

Research Design

      I selected a correlational research design because correlational research determines whether a relationship between specific variables exists (Privitera, 2014). Correlational design determines the strength of the relationship through statistical analysis (Privitera, 2014). Other quantitative research methods, such as causal-comparative and quasi-experimental research, did not meet the purpose of this study, as the focus of causal-comparative and quasi-experimental research is to establish cause-effect relationships among the variables (Bryman, 2016). These types of design are very similar to true experiments, but with some key differences. An independent variable is identified but not manipulated by the experimenter, and effects of the independent variable on the dependent variable are measured (Bryman, 2016). A researcher does not manipulate variable or measure effects in a correlational design (Privitera, 2014). Rather, the researcher studies the unmanipulated variables to identify a potential relationship between them (Privitera, 2014). A correlational design was most appropriate for meeting the purpose of this study. The purpose of the study was to obtain and analyze secondary data to examine the relationship between flexible work location, flexible work hours, and millennial employee engagement. A correlational design was useful for not only determining whether the two independent variables might positively influence employee engagement by providing avenues for better work satisfaction, autonomy, and positive challenges, but to what degree each independent variable might produce such engagement.

Population and Sampling

I sourced the general population sample from archival data included millennial workers in a HIT organization residing in the southeastern United States. I used this population because the overarching research questions specifically address the relationship between key variables among millennial generation workers. I gathered the sample archival employee engagement survey data from a participating HIT organization with locations in the southeastern United States. 2,184 participants were determined to be an effective sample size for this research based on a G*Power analysis (Faul, Erdfelder, Buchner, & Lang, 2009).

Ethical Research

I followed ethical procedures to ensure the ethical treatment of participants' data. Prior to data collection, I contacted leaders from the participating organization and obtained permission to access archival employee survey data. The archival data set contained no personally identifiable information numbers therefore employee anonymity and confidentiality were maintained. There were no incentives for the organization involved in this research, or for the employees included in the archival data. The IRB approval number for this study was 05-09-19-0281290. All electronic data related to this research were stored in a password-protected computer, while all physical documents are stored in a locked file cabinet for 5 years and will be destroyed after 5 years.

Instrumentation

The data collection instrument was an employee engagement survey developed by a recognized, private, third-party vendor and used by multiple organizations including the

participating HIT organization. The survey developer has requested anonymity for

proprietary reasons. The participating organization conducts an employee engagement

survey annually using this instrument. The data used in this study consisted of secondary

data from the archives of the participating HIT organization. The data archives were

produced from the employee engagement survey conducted in 2018. The participating

HIT organization has requested the raw data remain confidential for proprietary reasons.

Using a reliable instrument to yield valid and reliable results is critical in research.

Instrument reliability refers to the consistency of scores when evaluating a specific

construct or variable multiple times using the instrument (Crutzen & Peters, 2015). The

survey instrument in this study was a pre-existing instrument previously used by

numerous other companies that contracted with the third-party vendor. The internal

consistency reliability test entails measuring the consistency of an instrument to ensure

that each part of the test produces comparable results (Solomon, Tobin, & Schutte, 2015).

The third-party vendor used an engagement measure construct model and determined it

was a fit over time using model fit estimates. The operationalization of the employee

engagement construct is consistent with the widely accepted definition in both academic

literature and practice.

The employee engagement measurement model used to assess this construct via

employees' pride, intrinsic reward, referral intentions, and intentions to stay. The

employee engagement survey instrument statements included in the model were: I am

proud to work for this company, my work gives me a feeling of personal

accomplishment, I intend to stay with this company, and I would recommend the

company as a good place to work. The employee engagement survey instrument

(Appendix D) included the responses to these statements using an ordinal 5-point Likert-

type scale asking respondents for their level of agreement with each statement. Research

has shown that, for rating scales, five to seven response options is sufficient for good

reliability and validity. Cronbach's alpha is one of the most popular tools to estimate the

internal consistency of instruments with summated rating scales (Vaske, Beaman, &

Sponarski, 2017). The third-party vendor performed these tests on the engagement

measure construct model, and assures reliability and validity of their instrument.

The secondary archival data set that was produced from the 2018 employee

engagement survey included numerical indicators, which represented the independent

variables of flexible work location and flexible work hours, and the dependent variable,

and summed scores of employee engagement. The Data Collection Technique subsection

of this study includes a description of the numerical indicators. The use of archival

secondary data does not require research participants, thus eliminating the need for many

ethical considerations involved in participant-based research. I eliminated further threats

to validity, such as the Hawthorne effect, which may occur when participants are

involved (Brannen, 2017).

Data Collection Technique

Researchers may use multiple data collection techniques, including the use of

surveys and archival data. Organizations administer surveys through via electronic format

in order to collect data about variables that could improve an area of business (Sharma &

Kern, 2015). The processes are either advantageous or disadvantageous depending the

variables (Cheng & Phillips, 2014). The organization obtained the original data using an employee engagement survey conducted in 2018. The advantages of an organization conducting an electronic employee survey include reaching a dispersed employee base, ability to collect the information and in a timely manner, and because the employee engagement surveys are anonymous, respondents may provide honest feedback (Revilla, Toninelli, Ochoa, & Loewe, 2016).

By reviewing previous survey results scholars may use archival records to gain a more comprehensive understanding of a topic. The advantages of using archival records for researchers include little to no costs, access to in-depth data from a large population that the investigator may not otherwise have access to and the opportunity to retrieve data from a reliable source organization (Cheng & Phillips, 2014). Disadvantages of using archival records are that the data may not align with the current study (Cheng & Phillips, 2014). Second, a more extended gap in time between the archival records and the present research potentially impacts how the data applies to the study. A period of fewer than 5 years existed between the employee engagement survey archival records and this study.

The HIT organization conducts an annual employee engagement survey managed by a third-party vendor. I contacted the HR leader of the participating organization in order to gain permission to use the archival data from the previously conducted 2018 employee engagement survey. The collected data contained employees' work locations, work hour flexibility, and employee engagement. The numerical values for work location were "1" for flexible work location and "2" for fixed work location (office). The values for work hour flexibility were 1 for flexible work hours and 2 for fixed work hours. The

archival data was composed of summed scores for the engagement data. The organization

leaders collaborated with the third-party vendor to deploy the survey via the organization

email system, and data were collected in English only. Each survey e-mail invitation

contained a unique authorization code (URL with a unique embedded user code), and

survey responses were linked to appropriate preloaded demographics. All responses were

submitted directly to a professional, external third-party administrator, ensuring

confidentiality. The employee demographics from the HIT companies' HRIS database

was preloaded into the survey platform to enable segmentation of survey responses by

any of the demographic options desired. The employee demographics included employee

identification number, age, gender, work location (fixed/office or flexible), and work

hours (fixed or flexible hours). Because the archival data contained no personally

identifiable information other than employee identification numbers, the use of

pseudonyms for employee anonymity and confidentiality was not necessary. The

organizational leaders downloaded all of the demographic data and engagement survey

scores in Microsoft Excel form a from the third-party self-service microsite and provided

the archival data for analysis.

Data Analysis

The research question for this quantitative study was: What is the relationship

between (a) flexible work location, (b) flexible work hours, and (c) employee

engagement among millennial HIT workers? The following hypotheses were tested to

support the research question regarding the nature of the relationship between (a) flexible

work location, (b) flexible work hours, and (c) employee engagement among millennial generation workers in a HIT organization with locations in the United States:

Null Hypothesis ($H_0$1): A statistically significant relationship does not exist between flexible work location, flexible work hours and employee engagement among millennial generation workers.

Alternative Hypothesis (H_a1): A statistically significant relationship does exist between flexible work location, flexible work hours and employee engagement among millennial generation workers.

Ordinal logistic regression is a model used to predict the likelihood ratio (Ranganathan, Pramesh, & Aggarwal, 2017). The intent of this research was to determine whether certain relationships existed; therefore, this model was selected. I determined multiple linear regression was not appropriate for data analysis for this study. Researchers use multiple linear regression to examine the relationship between the predictor variables and the dependent variable (Alhamide, Ibrahim, & Alodat, 2016); this study included two predictor variables, and one dependent variable. However, the dependent variable in this study was ordinal and therefore linear analysis was not appropriate. Because I was not reviewing the differences between groups, an analysis of variance statistical test was not appropriate for this study. I performed statistical analysis on the collected data to determine the relationships between the flexible work location, flexible work hours and employee engagement.

Missing Data

Missing data refers to the absence of values within a study variable contained in the dataset (Laerd Statistics, 2015). If the number of cases involving missing data is small, the researcher may choose to eliminate these values from analysis (Laerd Statistics, 2015). I reviewed the archival data for any missing data, and it was not necessary to respond to missing values because the archival data set was complete.

Assumptions of the Statistical Model

Laerd Statistics (2015) has identified four key assumptions for ordinal regression analysis. The assumptions are as follows: (1) the dependent variable should be measured at the ordinal level; (2) One or more independent variables are continuous, ordinal or categorical (including dichotomous variables); (3) there is no multicollinearity; and (4) there are proportional odds. The first two assumptions are associated with the design and measurements of the study. If the first two assumptions are not met ordinal logistic regression is the incorrect statistical test to use to analyze the data in this study. The second two assumptions are associated with the characteristics of the data. It is not uncommon for the data to violate (i.e., fail) one or more of these two assumptions (Laerd Statistics, 2015). I either chose to (a) make corrections to the data so that it no longer violates the assumptions, (b) use an alternative statistical test, or (c) proceed with the analysis even when though the data violates certain assumptions.

The first assumption is that one dependent variable is measured on the ordinal level. Ordinal level variables may include Likert scale data like a 5-point scale from "strongly disagree" through to strongly agree". Ordinal data could also include groups

like low, moderate, high or other sentiments ranges (e.g., "great", to "good", to "ok") (Laerd Statistics, 2015). Because the dependent variable in this study was Likert scale items from archival employee engagement survey data the first assumption of one dependent variable measured at the ordinal level existed in this study.

The second assumption is that one or more independent variables that are continuous, ordinal or categorical (including dichotomous variables) (Laerd Statistics, 2015). Examples of continuous variables that meet this condition include items such as age, time, and income. Examples of categorical variables include gender (e.g., 2 groups: men and women), race (e.g., 3 groups: White, Black and Hispanic), or careers (e.g., 5 groups: teacher, pilot, fireman, police officer) (Laerd Statistics, 2015). The independent variables in this study are categorical variables (e.g. 2 groups: flexible work hours and non-flexible work hours) and (flexible work location and non-flexible work location). The second assumption that one or more independent variables that are continuous, ordinal or categorical (including dichotomous variables) existed in this study.

The third assumption, multicollinearity, occurs when you have two or more independent variables that are highly correlated with each other (Laerd Statistics, 2015). If the independent variables are highly correlated to each other then it becomes difficult to understand which variable contributes to the explanation of the dependent variable. In order to test for this, I completed a collinearity test for the assumption of multicollinearity. I tested to determine if Tolerance value was is less than 0.1 or if the VIF value of 10 or greater. The assumption of multicollinearity existed in this study

The fourth assumption, proportional odds, is the fundamental assumption of ordinal logistic regression model (Laerd Statistics, 2015). This assumption means that each independent variable has an identical effect at each cumulative split of the ordinal dependent variable. I tested this assumption in SPSS Statistics with a full likelihood ratio test comparing the fit of the proportional odds model to a model with varying location parameters (Laerd Statistics, 2015). If the assumption of proportional odds is met, the difference in model fit will not be statistically significant ($p > 0\ 05$). If the assumption of proportional odds is violated, the difference in fit will be statistically significant ($p < 0.05$). The fourth assumption of proportional odds was not met for this study. By violating this assumption, I cannot conclude that each independent variable has the same effect for the dependent variable. I reviewed the crosstabulation results of the data and it shown that the lack of variance in a portion of the data offered an indication why the model did not meet this assumption.

Ordinal Logistic Regression Analysis

Ordinal logistic regression is used to predict an ordinal dependent variable given one or more independent variables. More specifically it uses to: (a) determine which independent variables (if any) have a statistically significant effect on the dependent variable; and (b) determine how well the ordinal logistic regression model predicts the dependent variable. I assessed the overall model fit of the ordinal regression model as well as the parameter estimates. I used SPSS version 25 software to manage and analyze the data.

Study Validity

Certain factors associated with this research may affect study validity. First, the data collection method (data were gathered from an outside source and did involve the personal opinions of participants) used for this research may improve the validity of this research, as described by Shultz, Hoffman, & Reiter-Palmon (2005).

I conducted a quantitative correlational study. The quantitative research design is a nonexperimental design; consequently, there were no threats to internal validity. Alternatively, a correlational study creates threats to statistical conclusion validity. Incorrectly concluding there is a correlation between variables is a threat to the validity of this study. Cronbach's alpha (α) test uses summated rating scales to evaluate the internal reliability of instrument (Vaske, Beaman, & Sponarski, 2017). I did not use Cronbach's α to run reliability testing of the instrument in this study. The archival data was composed of summed scores. In order to run the Cronbach's α, I would have needed the responses for the individual items on the instrument.

I performed statistical analysis on the collected archival data and had the analysis reviewed by another researcher upon completion in order to avoid errors. I considered these findings generalizable to the broader population of millennial workers, although the contextual information pertaining to the HIT sector was included within discussion of results. Such generalization is valid, considering the central variables of employee engagement, flexible work location, and flexible work hours are not industry-specific.

Summary and Transition

This section contained details about this project. Information included in this

section included the purpose statement, the role of the researcher, participants, research

method and design, population, and sampling procedures. Additionally, ethical research

procedures, data collection and data analysis techniques, as well as study validity were

included.

Section 3 contains discussion of the results of the study, as well as application of

this research to professional practice, implications for social change, recommendations

for action, and recommendations for further research, reflections, and conclusion.

Section 3: Application to Professional Practice and Implications for Change

Introduction

The purpose of this quantitative, correlational study was to examine the

relationship between flexible work location, flexible work hours, and employee

engagement among millennial-generation HIT workers. The results of the overall

findings of this study provided evidence of statistically significant relationship between

the work location and employee engagement scores of the millennial HIT employees. A

cumulative odds ordinal logistic regression with proportional odds was run to analyze the

relationship between (a) flexible work location, (b) flexible work hours, and (c) employee

engagement among millennial generation workers. There were not proportional odds, as

assessed by a full likelihood ratio test comparing the fitted model to a model with varying

location parameters, $\chi^2(6) = 101.065$, $p < .001$. The Pearson goodness-of-fit test indicated

that the model was not a good fit to the observed data, $\chi^2(10) = 70.446$, $p < .001$. The

deviance goodness-of-fit test indicated that the model was a not a good fit to the observed

data, $\chi^2(10) = 101.065$, $p < .001$, as most cells were sparse with zero frequencies in 45%

of cells. However, the Nagelkerke measure indicated that the model explains 73.8% of

the variance in the dependent. The final model statistically significantly predicted the

dependent variable over and above the intercept-only model, $\chi^2(2) = 2321.027$, $p < .001$.

The odds of remote work location being in a higher category of employee engagement

was 2.44 times higher than office work location, $\chi^2(1) = 51.278$, $p = .000$. The odds of

flexible hours could not be tested due the lack of variance in the data, 100% of employee with flexible work hours indicated an engagement score of 5.0.

Presentation of the Findings

In this subsection, I discuss the findings following the analyses of the collected data. It includes the results of testing for statistical assumptions, descriptive analysis and inferential analysis conducted to address the central research question and associated hypotheses. The results of the ordinal logistic regression analysis procedures are included, along with the nature of the relationship between the study variables. I also present a theoretical discussion on the findings, applications to professional practice, implications for social change, recommendations for actions and further research, and my reflections.

Descriptive Analysis Results

I used ordinal logistic regression analysis and ordinal logit model to analyze the relationship between (a) flexible work location, (b) flexible work hours, and (c) employee engagement among millennial generation workers. Descriptive statistical results for these variables are given in Table 1. The model included $N = 2184$ cases. The data showed 56.2% of the cases indicates an employee engagement score of 5.0. The data showed 49% of the employees indicated office work location and non-flexible work hours. The data showed 51% of the employees indicated remote work location and flexible work hours, with 100% of the cases considered valid.

Table 1

Case Processing Summary

		N	Marginal Percentage
Employee	1.00	61	2.8%
Engagement	2.00	43	2.0%
	3.00	216	9.9%
	4.00	636	29.1%
	5.00	1228	56.2%
Flexible Work	Office	1070	49.0%
Location	Remote	1114	51.0%
Flexible Work Hours	Non-flexible	1070	49.0%
	Flexible	1114	51.0%
Valid		2184	100.0%
Missing		0	
Total		2184	

I conducted further analysis on the data by performing a Crosstabulation in SPSS as seen in Table 2. The data shows that 100% of those employees with remote work location and flexible work hours indicated an engagement score of 5.0. Conversely, 0% of employees with an office work location or non-flexible work hours indicated an engagement score of 5.0.

Table 2

Work Location, Employee Engagement, and Work Hours Crosstabulation

*Work Location * Employee Engagement * Work Hours Crosstabulation*									
				Employee Engagement					Total
Work Hours Flexibility				1.00	2.00	3.00	4.00	5.00	
Non-flexible	Work Location	Office	Count	25	22	100	317	114	578
			% within Work Location	4.3%	3.8%	17.3%	54.8%	19.7%	100.0%
		Remote	Count	36	21	116	319	0	492
			% within Work Location	7.3%	4.3%	23.6%	64.8%	0.0%	100.0%
	Total		Count	61	43	216	636	114	1070
			% within Work Location	5.7%	4.0%	20.2%	59.4%	10.7%	100.0%
Flexible	Work Location	Office	Count					492	492
			% within Work Location					100.0%	100.0%
		Remote	Count					622	622
			% within Work Location					100.0%	100.0%
	Total		Count					1114	1114
			% within Work Location					100.0%	100.0%
Total	Work Location	Office	Count	25	22	100	317	606	1070
			% within Work Location	2.3%	2.1%	9.3%	29.6%	56.6%	100.0%
		Remote	Count	36	21	116	319	622	1114
			% within Work Location	3.2%	1.9%	10.4%	28.6%	55.8%	100.0%
	Total		Count	61	43	216	636	1228	2184
			% within Work Location	2.8%	2.0%	9.9%	29.1%	56.2%	100.0%

The analysis results of the model fitting test is summarized in Table 3. The final

model test was met. The test statistically significantly predicted the dependent variable

over and above the intercept-only model, $\chi^2(2) = 2321.027$, $p < .001$. The independent

variables add statistically significantly to the model or at least one independent variable is

statistically significant. The significant value is less than .05 therefore the null hypothesis

is rejected. A statistically significant difference does exist between remote work location,

flexible work hours, and employee engagement among millennial generation HIT

workers.

Table 3

Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	2460.988			
Final	139.961	2321.027	2	.000

Link function: Logit.

As shown in Table 4, the model's suitability is determined using the difference

between the observed and expected values of the model. The Pearson goodness-of-fit test

indicated that the model was not a good fit to the observed data, $\chi^2(10) = 70.446$, $p <$

.001. The deviance goodness-of-fit test indicated that the model was a not a good fit to

the observed data, $\chi^2(10) = 101.065$, $p < .001$. Therefore, the suitability of this assumption

should be tested. Recall that in Table 2, it was shown that there were zero frequencies in

the independent variables for remote work location and flexible work hours. It can be

assumed that the model was not in agreement with the data. I chose to reject the null

hypothesis and conclude that a statistically significant relationship does exist between (a) flexible work location, (b) flexible work hours, and (c) employee engagement among millennial generation HIT workers.

Table 4

Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	70.446	10	.000
Deviance	101.065	10	.000

Link function: Logit.

In Table 5, the Pseudo R^2 values of the model are calculated, showing how many percent of the dependent variable is could be predicated by the independent variables. The Nagelkerke measure indicates that the model with the two independent variables explains 73.8% of the variance in the dependent variable, employee engagement.

Table 5

Pseudo R-Square

Cox and Snell	.654
Nagelkerke	.738
McFadden	.488

Link function: Logit.

When the analysis results of the Parameter estimates are examined in Table 6, the significance level was found to be statistically significant when $p < 0.05$. It was found that one category of independent variable was calculated in the model as significant. In this case, the category with remote work location were found to be statistically significant ($p < 0.05$). The odds of remote work location being in a higher category of employee

engagement was 2.44 times higher than office work location, $\chi^2(1) = 51.278$, $p = .000$. Therefore, the null hypothesis is rejected and I conclude that the regression coefficient for flexible (remote) work location has found to be statistically significant.

The negative parameter estimates and lack of Wald statistic shown in Table 6, for the location coefficient, flexibility, was expected. The data indicated the hypothesis of the significance of flexibility could not be tested. This was due to the lack of variance in the data. As discussed previously in the cross-tabulation analysis, 100% employees with the flexible work hours indicated an engagement score of 5.0.

Table 6

Parameter Estimates

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Threshold	[Engagement = 1.00]	-24.830	.141	30869.544	1	.000	-25.107	-24.553
	[Engagement = 2.00]	-24.249	.116	43955.964	1	.000	-24.476	-24.023
	[Engagement = 3.00]	-22.856	.089	65885.217	1	.000	-23.030	-22.681
	[Engagement = 4.00]	-19.757	.129	23368.645	1	.000	-20.011	-19.504
Location	[Location = 1.00]	.894	.125	51.278	1	.000	.649	1.139
	[Location = 2.00]	0[a]	.	.	0	.	.	.
	[Flexibility= 1.00]	-22.415	.000	.	1	.	-22.415	-22.415
	[Flexibility = 2.00]	0[a]	.	.	0	.	.	.

Link function: Logit.

a. This parameter is set to zero because it is redundant.

One of the most important assumptions in the ordinal logistic regression model is the assumption of proportional odds (Laerd Statistics, 2015. According to this assumption, the relationship between independent variables and dependent variables does not change according to the categories of the dependent variable. The analysis results of the predicted model are summarized in Table 7. The parameters for parallelism hypothesis were specified for the statistical values to pass over a line for all categories of the dependent variable. If the general model gives a significantly better fit to the data than

the ordinal proportional odds model where $p < .05$, then the assumption of proportional

odds is rejected. Therefore, the assumption of proportional odds was not met, $\chi^2(6) =$

101.065, $p < .001$. By violating this assumption, I cannot conclude that each independent

variable has the same effect for the dependent variable.

Table 7

Test of Parallel Lines[a]

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Null Hypothesis	139.961			
General	38.896	101.065	6	.000

The null hypothesis states that the location parameters (slope coefficients) are the
same across response categories.
a. Link function: Logit.

Summary

The purpose of this quantitative correlational study was to examine the

relationship between (a) flexible work location, (b) flexible work hours, and (c) employee

engagement. I collected secondary data from a sample of millennial employees from the

southeastern United States born between 1981 and 1997. I conducted ordinal logistic

regression analysis regression analysis procedures using the data collected from a sample

of 2,184 millennial-generation HIT workers. The results of the overall findings of this

study provided evidence of statistically significant relationship between the work location

and employee engagement scores of the millennial HIT employees. The final model

statistically significantly predicted the dependent variable over and above the intercept-

only model, $\chi^2(2) = 2321.027$, $p < .001$. The odds of remote work location being in a

higher category of employee engagement was 2.44 times higher than office work

location, $\chi^2(1) = 51.278$, $p = .000$. The odds of flexible work hours could not be tested

due the lack of variance in the data, 100% of employee with flexible work hours

indicated an engagement score of 5.0. In the following sections, I discuss these results in

relation to existing literature, and the conclusions and recommendations based on the

results.

Theoretical Discussion of Findings

The results ordinal logistic regression analysis found statistically significant

relationship between flexible work location and employee engagement scores of the

millennial HIT employees. The results of the study were timely as millennials are

entering a workforce which is constantly evolving because of corporate structure and

technology. Previous research can used to illuminate the results of this study.

Previous studies provided insight into flexible work location and generational

differences within a company's structure. Laine (2017) stated there were differences in

expectations of hours and locations between employee age groups. Workplace flexibility

can contain multiple elements. Speitzer et al. (2017) noted highly skilled workers desired

flexibility with work hours, work location, and employment relationships. Walker (2014)

professed employees who have benefits, time off, and flexible work hours were more

engaged and productive than those who were micromanaged and lacked extrinsic

motivation. Deery and Jago (2015) added flexible work hours enabled employees to

better manage increased workloads while balancing their personal life. Employees who

are offered flexible work hours are more likely to complete their work in a more productive manner.

Social exchange theory stipulated social exchange can produce beneficial results, and I found the variable of flexible work location to be statistically significant. Social exchange must occur because millennial workers views on benefits differ from older generations (Njemanze, 2016). In an attempt to attract and retain millennial employees, many employers offer satellite offices in urban areas to entice workers who are reluctant to relocate (Miller, 2016). The flexibility of a satellite campus creates larger pools of potential employees, which can improve organizational output. Conversely, Njemanze (2016) suggested older workers could be convinced to work in more rural locations. LaCore (2015) also touted the importance of locations stating travel opportunities on location are very important to millennial workers. The results of this study do support previous findings of existing literature.

Although the study analysis could not test the significant relationship between flexible work hours and employee engagement, 100% of employees indicated high engagement with flexible work hours. Absalyamova and Absalyamova (2015) stated millennials desire virtual and remote workplace flexibility. While millennials might be attracted to companies who offer increased flexible work hours, organizational leaders may be reluctant to incorporate such options because there are limited structures and policies for monitoring employees with differing schedules, thereby limiting organizational oversight. Oldham and da Silva (2015) argued a virtual workplace with increased flexibility in work hours can help improve employee creativity and innovation.

Carlson et al. (2017) added technology can increase team productivity when working at a virtual office. Employees improve creativity and innovation and increase productivity when leaders create clear and efficient communication channels, training, and support.

The importance of communication in a flexible work environment cannot be understated. Gauglitz et al. (2014) focused on clear communication as a central component for organizational output. Communication can increase trust and team cohesion, however Purvanova (2014) argued many companies are reluctant to implement a flexible work environment based upon negative perceptions of communication technology. One reason why managers may be reluctant to implement communication technology is because millennials are more likely to use the new technology while older workers are reluctant to apply it in day-to-day activities (Coleman, 2016). Varghese (2017) and Rittenhouse (2017) stressed proper management is vital for optimal workplace flexibility because managers must manage telecommuters and nontelecommuters.

Some managers have a negative perception of telecommunicating suggesting it could disengage employees from work while the employees seek other activities (Elmer, 2015; Nam, 2014). Millennials view workplace flexibility as a method for managing work-life balance (Garr, 2014). To counter these negative aspects, Franck (2018) proposed a distributed workplace where the majority of employees function where they feel most content and productive within their own schedule. These workplaces have no centralized location, but require physical office space for meetings and other interactions.

While employees may work at home, they must also be available for client or managerial meetings. These findings are consistent with social exchange theory.

Millennial employees consider workplace flexibility an appropriate exchange for increased output and creating work-life balance. Managers who are apprehensive of remote workers with varying hours, must enforce intrinsic and extrinsic motivation for organizational outcomes. Younger generations with increased knowledge of technology, often seek flexible work hours. Managers often resist flexible work hours because of lack of knowledge of new technologies for managing subordinates. Social exchange theory implies this lack of flexibility can be detrimental resulting in lowered productivity, increased turnover, and diminished profits if managers are unwilling to compromise or exchange concessions (Mendelson, 2013; Murdvee, 2009; Stewart et al., 2017).

Application to Professional Practice

The general business problem in this study was a lack of workplace flexibility. Lack of workplace flexibility can result in decreased employee engagement, thereby adversely impacting companies' performance. The specific business problem was some HIT leaders lack information about the relationship between (a) flexible work location, (b) flexible work hours, and (c) employee engagement among millennial generation workers. The most important theme business leaders should deduce from this study was flexible work location, and flexible work hours are important to improve millennial employees' engagement and work outcome.

Business leaders should not focus on creating work–from–home options, but rather on how to promote a more flexible and fair work schedule to employees.

Millennial employees are not interested in the traditional 9-to-5 job because they seek to maintain work-life balance. Work-life balance may increase engagement while offering employees the time needed to enjoy their personal lives. Business leaders and managers should consider technology as a method for offering work flexibility with less focus on telecommuting and remote locations. A focus on workplace flexibility could help managers recruit millennial employees and maintain their engagement.

Social exchange theory maintains management should not concede everything to employees, instead seeking a compromise for both parties. While management would likely prefer to maintain the oversight necessary to increase organizational outcomes, they should balance this need with employees' desire for flexible work schedules. Managers who insist on fixed work schedules may risk reduced employee engagement, and possible loss of members of the millennial workforce to companies offering improved work-life balance. Most importantly, managers should continue to compile data on this phenomenon. This data may be industry-specific, requiring a need to improve their data further. Once data has been compiled those organizational leaders will have more resources to determine the relationship between work set up, work flexibility, and employee engagement among millennials.

Implications for Social Change

This study has numerous implications for social change at the individual, community, organizational, and cultural levels. At the individual level, this study provided positive social change by creating a renewed focus on work flexibility and work-life balance for the next generation of employees. Work flexibility and improved

work-life balance are important to millennial workers. Addressing the needs of millennial employees may result in improved employee engagement and quality of life for employees. Improved quality of life may increase job retention and organizational loyalty, and enhance professional and personal relationships.

At the societal level, millennials have been shown to be more open to exploring job experiences better suited for their lifestyle. This change in employment could adversely affect the local community through job loss and decreased consumer spending. However, organizations which are able to maintain employee engagement and retention may contribute to society through maintaining local employment and consumer spending. Local communities may benefit from increased job creation, spending capability, and corporate social responsibility through reduced government spending on assistance programs, resulting in increased funding for programs beneficial to the local community.

There are also opportunities for organizational change. Flexible work environments remain an important issue to millennial's employee engagement as evidenced by the literature and the findings of this study. Organizational leaders must contend with the rapid change in millennial expectations within their employment. Managers can no longer ignore the benefits technology can offer as solutions. While managers may be reluctant to implement new technology because of the learning curve or cost, technology should allow for workplace flexibility and be incorporated for improved organizational outcomes. By increasing these organizational outcomes, employees and the community can gain the benefits. Organizations may also be better positioned for expansion and recruiting top talent within the millennial workforce. As millennials are

not grounded to any one job, maintaining employee engagement is of vital importance to the organization.

Millennials will eventually constitute the majority of the workforce and thus require organizations to align their business practices with the changing culture. Flexible work location, flexible work hours, and other variables are all changing culture. No business is static and all are prone to cultural changes, such as an increased focus on work-life balance. This cultural shift has implications for families, individuals, and societies. Culture may change as the emphasis is moved from work to more recreational activities. These changes need to be accounted for and documented to make sure organizations can continue their output and growth. Additionally, as individuals place more emphasis on their personal life than their professional life, culture realigns.

This study has social implications for technology, as the research found work flexibility is important. There are opportunities for technology to aid organizations in this shifting trend — new methods of oversight, communication, and accountability all present opportunities for new technology. Leaders should not be reluctant to implementing or requesting these technologies to increase the workforce and maintain employee engagement. Technology providers should be aware of the shifting trends and begin production on software and other tools to help organizations maintain market dominance with respect to work-life balance and workplace flexibility.

Recommendations for Action

The literature review substantiates all of the findings in the study, business leaders are not without recourse on how to improve employee engagement among millennial

workers. The ability to perform their jobs in a variety of locations were not found to be independently statistically significant. Flexible work location and flexible hours were an important variable for millennial workers and employee engagement. Managers and business leaders would be wise to incorporate flexible work location and flexible work hours to encourage millennial employment engagement.

The literature provided ample opportunities and recommendations for how a manager can incorporate flexible work locations. The literature was lacking recommendations regarding flexible work hours. A flexible work schedule can be difficult for managers to maintain due to varying work hours. Employees on different work schedules may not align with the managers, thereby leaving them disconnected should they insist on a flexible schedule. Based on social exchange theory an exchange should occur between managers and employees to identify common ground with their work schedules. Researchers in the literature review frequently mentioned work-life balance.

Work-life balance is important to millennials because it can strengthen their social life and work output because of increased engagement and satisfaction in both aspects of their life. As millennials are more likely to change jobs than stay with a company over an extended period, it is important to entice millennial workers with work flexibility while also giving management the tools to succeed. Leaders should focus on opportunities to increase the work-life balance. These opportunities could be flexible work schedules, increased vacation time, additional benefits, and outside work activities where team bonding can occur. Managers should incorporate a work environment where employees

may balance their work with their personal life. Intrinsic and extrinsic motivation should be cultivated with millennial employees by providing multiple schedules, employees can pick the one better suited for their lives while management can continue to attract and maintain a millennial workforce with high employee engagement.

Managers may be reluctant to incorporate technology within their managerial practices, especially allowing employees to work remotely. By embracing technology leaders may offer the solutions to increase work flexibility and improve millennial employees work schedule. Managers can offer technical solutions such as work portals where management can monitor the work. An adequate work portal could offer a period for projects and due dates; both allow millennials to work independently with minimal oversight. Millennial employees use technical tools for finding their flexible work hours while offering the leadership needed for the organization to thrive.

The technology should not be used by managers to micromanage employees. A good work-life balance motivates millennial workers. If their work circumstances feel too controlling, employees may lose the perception their work life is balanced. Employees and management could create a social contract supported by technology. Managers can use technology to provide the adequate oversight needed while also providing employees with improved schedules to help them maintain their work-life balance. Managers should look at any solution to improving millennial employee engagement through the lens of social exchange theory.

The solutions are theoretical at this point. This research has found minimal evidence to corroborate or deny that these options can improve organizational outcomes

and employee engagement among millennials. This should not stop management from considering them. Researchers should use these recommendations as a starting point to further investigate how successful these recommendations may be.

The results of this study will be disseminated by sharing the findings with the leaders of the HIT organization that shared the archival data for the study. The results will be distributed through publication in the ProQuest dissertation database. I plan to share the findings in other business-related and human resources-related forums.

Recommendations for Further Research

The assumptions, limitations, and delimitations provide ample avenues to build upon these results. One assumption was the category of age. Participants were selected based upon an age range. Extremes of these age brackets may create differing results of the millennial generation. Demographic, socioeconomic, and industry differences in the participant could provide varying results. Future researchers could focus on how these multiple variables interact. The data source limited this study. All data were archival, meaning there is no room to create specific questions for the study. Future researchers might develop a questionnaire designed to the specifics of the study. The study was also industry-specific. Because other industries may have different results, future researchers should consider and compare other industries where millennials work.

There are also methodological implications for future research. As this study was quantitative, a qualitative research study could aid in understanding how and why respondents answered the way they did. A qualitative study could provide further insight into the variables to see if there are any outside forces negating social exchange theory.

Researchers can repeat this study in different industries. By comparing and contrasting industries, researchers can make better recommendations for specific organizations. This study focused on employee engagement in the HIT whereas results may be different in government, education, or nonprofits due to factors such as culture, workload, employee type, and the type of work that is being performed.

Lastly, there is room for theoretical improvement. Social exchange theory was not totally applicable throughout the study. While the theory made sense and seemed appropriate to guide the research, the results indicated there may be some other variables or forces in determining why an exchange between flexible work location and employee engagement were not significant. This research would be useful, especially as other researchers seemed to indicate there was a connection between both.

Reflections

The Walden University doctoral study process has been both challenging and fulfilling. The faculty, staff, and students are amazing. Although the process was extremely difficult at the beginning, by continuing to work on this study I developed new skills as a researcher which has positively impacted my role as a leader in my organization. The process of completing this research project has changed me for the better. Employee engagement, especially the engagement of the millennial generation workforce is a topic of professional and personal curiosity. I had not explored this subject until I began to determine my topic for this study. I had nominal personal biases regarding this topic. As an HR leader who works primarily in the technology and learning space, I do not directly experience employee engagement issues in organizations, but I do

recognize the contributions this research would make to my profession. I approached this study without bias. I used the data to respond to the research questions. Through the literature review, I gained significant insight into employee engagement.

Conclusion

The general business problem was lack of workplace flexibility can result in decreased employee engagement, adversely impacting companies' performance. The specific business problem was some HIT leaders lack information about the relationship between (a) flexible work location, (b) flexible work hours, and (c) employee engagement among millennial generation workers. To address this problem, the purpose of this quantitative correlational study was to examine the relationship between (a) flexible work location, (b) flexible work hours, and (c) employee engagement among millennial generation HIT workers. The theoretical framework for this study was Blau (1964) and Emerson's (1976) social exchange theory. I conducted this study to address the research problem and provide practical information about how millennial worker engagement is influenced by flexible hours and work location. The results of the overall findings of this study provided evidence of statistically significant relationship between the work location and employee engagement scores of the millennial HIT employees. This study offered a wide variety of takeaways on how business leaders can compete for millennial employees and engagement in the future. Focusing on technological means to allow workplace flexibility will be beneficial in the long run. New forms of communicative technology can help facilitate these changes. Lastly, there are plenty of opportunities for future research including studying other industries, using a qualitative

approach, and by using other theories as the framework for a future study. Further

research is important because employee engagement directly impacts the profitability of

business. Therefore, determining what variables increase employee engagement allows

leaders to make changes to their employee strategies.

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Appendix A: Letter to Request Organizational Approval

Dear Leader:

I am a Doctor of Business Administration candidate at Walden University finishing my doctoral study. I would like to seek your permission to conduct secondary analysis on a dataset from the companies 2018 Employee Engagement Survey as part of my doctoral project for Walden University.

Your approval and participation are essential and will require a letter of cooperation, a limited data set user agreement to be sent via email (to provide electronic signature) to Walden University's Institutional Review Board (IRB) at IRB@mail.waldenu.edu

No direct identifiers such as names will be included in the Limited Data Set (LDS). The researcher will also not name the organization in the doctoral project report that is to be published in Proquest.

I have also sent a meeting invite to discuss the details of my project.

I look forward to gaining your approval for the use of the archived employee engagement survey data.

Thank you,

Mosella Rouse

Doctor of Business Administration Candidate

Walden University

Mosella.rouse@waldenu.edu

Appendix B: Letter of Cooperation from a Research Partner

████████████████████.com>

Sent: Tuesday, June 18, 2019 4:16 PM

To: IRB <irb@mail.waldenu.edu>

Cc: Mosella Rouse < ████████████████████ >

Subject: Mosella Rouse (A00281290) - Data Use Agreement Approval (IRB-05-09-19-0281290)

This email came from an external source.

To Whom It May Concern,

Please accept this email as my documented approval for Mosella Rouse to use Company X Technology data for her doctoral research per the Data Use Agreement below. This approval is granted in conjunction with our discussion of June 18, 2019 with my manager, ████████, SVP, Global Human Resources, ████████.

Please do not hesitate to contact me should you have questions at +1████████

Best,

████

Appendix C: Data Use Agreement

DATA USE AGREEMENT

Background

▮▮▮▮▮▮▮▮▮, employee Mosella Rouse, seeks to conduct secondary analysis on a

dataset from ▮▮▮▮▮▮▮▮▮▮▮, Employee Engagement Survey as part of her

doctoral project for Walden University.

Walden University's Institutional Review Board (IRB) has approved Mosella Rouse's

application for the Doctoral study entitled, "The Relationship Between Flexible Work

Environments and Healthcare Information Technology Employees' Engagement," with

conditional upon the approval of the research partner (▮▮▮▮▮▮▮▮▮▮.), as

documented in the signed data use agreement. The researcher may not commence the

study until the Walden IRB confirms receipt of that signed data use agreement.

No direct identifiers such as names will be included in the Limited Data Set (LDS). The

researcher will also **not name the organization** in the doctoral project report that is to be

published in Proquest.

Walden University's IRB will oversee the capstone data analysis and results reporting.

The IRB approval number for this study is 05-09-19-0281290. Any questions about the

IRB procedures can be directed to IRB@mail.waldenu.edu.

What is a Data Use Agreement?

A data use agreement is the means by which covered entities obtain satisfactory

assurances that the recipient of the limited data set will use or disclose the PHI in the data

set only for specified purposes. Even if the person requesting a limited data set from a

covered entity is an employee or otherwise a member of the covered entity's workforce, a

written data use agreement meeting the Privacy Rule's requirements must be in place

between the covered entity and the limited data set recipient.

DATA USE AGREEMENT

This Data Use Agreement ("Agreement"), effective as of (June 18, 2019, is

entered into by and between Mosella Rouse ("Data Recipient") ▉▉▉▉▉▉

▉▉▉▉▉▉, Inc. ("Data Provider"). The purpose of this Agreement is to provide

Data Recipient with access to a Limited Data Set ("LDS") for use in research in accord

with HIPAA.

1. Definitions. Unless otherwise specified in this Agreement, all capitalized terms used in this Agreement not otherwise defined have the meaning established for purposes of the "HIPAA Regulations" codified at Title 45 parts 160 through 164 of the United States Code of Federal Regulations, as amended from time to time.

2. Preparation of the LDS. Data Provider shall prepare and furnish to Data Recipient an LDS in accord with any applicable HIPAA.

Data Fields in the LDS

In preparing the LDS, Data Provider or designee shall include the **data fields specified as follows**, which are the minimum necessary to accomplish the research:

- ███████████████████████. Employee Engagement Survey results as a detailed excel database

- Employee details to include employee identification number age, gender, work location (office or remote), and work hours, job title, job level, job family, exemption status (exempt/non-exempt), work country, tenure, and, department.

- Engagement survey question level and answer details by employee

Responsibilities of Data Recipient. Data Recipient agrees to:

a.   Use or disclose the LDS only as permitted by this Agreement or as required by law;

b.   Use appropriate safeguards to prevent use or disclosure of the LDS other than as permitted by this Agreement or required by law;

c.   Report to Data Provider any use or disclosure of the LDS of which it becomes aware that is not permitted by this Agreement or required by law;

d.   Require any of its subcontractors or agents that receive or have access to the LDS to agree to the same restrictions and conditions on the use and/or disclosure of the LDS that apply to Data Recipient under this Agreement; and

e.   Not use the information in the LDS to identify or contact the individuals who are data subjects.

4.   Permitted Uses and Disclosures of the LDS. Data Recipient may use and/or disclose the LDS for its research activities only.

5.   Term and Termination.

Appendix D: Archival Data Employee Survey Statements

<u>Archival Data Employee Survey Statements</u>

Statement 1: I am proud to work for this company

Statement 2: My work gives me a feeling of personal accomplishment

Statement 3: I intend to stay with this company

Statement 4: I would recommend the company as a good place to work.