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Experiencing the pull and push: Influences on independent contractor motivation and job
satisfaction

Andrew D. Miller

A dissertation submitted to the Graduate Faculty of

JAMES MADISON UNIVERSITY

In

Partial Fulfillment of the Requirements

for the degree of

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ABSTRACT

Over the past few decades, the number of individuals engaging in non-standard employment has been increasing. Drawing on self-determination theory (SDT), this study examines the motivation and job satisfaction of independent contractors, the largest form of these alternative work arrangements. Specifically, I examine how the rationale for workers entering contracting work arrangements affect in-role contractor motivation and job satisfaction. Based on a sample of $N = 241$ adjunct instructors from two universities, I find that the positive relationship between those entering contracting because the work offers autonomy, flexibility and the ability to pursue personally interesting work (pull factors) and their resultant job satisfaction is fully mediated by the level of autonomous motivation experienced in their work. The degree to which individuals entering contract work because of an inability to secure a desired work role or pursue their preferred career path (push factors) showed an inverse relationship with job satisfaction, which was not mediated by autonomous or controlled motivation. Finally, the level of perceived supervisor and organizational support that contractors experienced did not influence the level of autonomous motivation, regardless of the reasons for choosing contracting work. This study develops new measurement scales for pull and push factors and demonstrates the importance of recruiting and selecting contractors that find the associated contract work personally interesting and meaningful. It also highlights the need for future research to understand how and under which conditions leaders or managers are able to influence contractors effectively.

CHAPTER 1. INTRODUCTION

In organizations, the utilization of alternative work arrangements is increasing. Work arrangements have been traditionally and legally conceptualized in terms of full-time work of an individual within one organization (Katz & Krueger, 2019; Spreitzer et al., 2017). Over the past few decades, the sole reliance on this standard work relationship has been relaxed as organizations and workers have found incentives to complete tasks through alternative or nonstandard work arrangements (Bidwell et al., 2013). More recently, COVID-19 has forced the introduction of flexibility, such as work at home programs, into standard employment relationships (e.g. Vyas & Butakhieo, 2021). More importantly, COVID-19 has accelerated the prevalence and importance of alternative work arrangements, such as platform based delivery services, for the economic survival of both organizations and workers (Spurk & Straub, 2020). Not only do alternative or nonstandard work arrangements relax the traditional temporal, administrative and physical attachments to an organization (Ashford et al., 2007; Pfeffer & Baron, 1988), they also shift the locus of who directs the completion of work (Cappelli & Keller, 2013). By definition, alternative work arrangements relax one or more of these aspects of organizational control and are captured by descriptions such as: contract workers, temporary or agency workers, independent contractors (Spreitzer et al., 2017), freelancers (Kuhn, 2016) and gig workers (Keith et al., 2019).

Independent contractors represent a substantial subpopulation of alternative work arrangements (Spreitzer et al., 2017). Independent contractors are bound to deliver specified outputs within a specific time period. Because they are administratively separate from the organization (Ashford et al., 2007; Pfeffer & Baron, 1988), they are

self-directing in completing their work (Cappelli & Keller, 2013) according to the agreed upon outcomes, time frame and physical location noted in the contract (Ashford et al., 2007). By definition, independent contracting describes work arrangements that are longer than a few days, which contrasts with gig work that may only be a few hours or days (Spreitzer et al., 2017). Independent contractors may hold agreements with one or multiple organizations at any given time and their work can be considered either full or part-time (Cappelli & Keller, 2013).

Independent contracting is attractive to organizations because of the benefits, such as cost savings, flexibility in staffing and the ability to attract diverse sets of skills. One line of research suggests alternative work arrangements increase cost efficiencies in deploying human capital (Spreitzer et al., 2017). Because the commitment to part-time and contract workers does not extend beyond their current arrangement, additional workers can be added or eliminated relatively quickly according to the needs of the organization (Sancha et al., 2020). Additionally, the lower incidence of indirect payroll costs and benefits for part-time and contracted workers reduces the per-unit cost for workers (Spreitzer et al., 2017). Other lines of organizational research suggest that alternative work arrangements are perceived as an opportunity for increased performance (e.g. Murray et al., 2019). In addition, alternative work arrangements can give managers an increased flexibility in worker utilization (Brady & Briody, 2016) and meet specialized skill requirements not currently met by regular workers in the organization (Davis-Blake & Uzzi, 1993). The use of contracted workers, however, is usually for tasks more peripheral to the central mission of the organization (Bidwell, 2009) and varies by industry (Davis-Blake & Uzzi, 1993).

There are two primary explanations for why workers may prefer independent contracting. Contracting may be preferable because of advantageous work characteristics, including autonomy and increased flexibility, which may better align with other life priorities (Spreitzer et al., 2017). Alternatively, the option of contracting may emerge out of necessity as workers are unable to find suitable work in the standard employment market (McKeown, 2005). McKeown (2005) classifies these rationales for entering contract work arrangements as pull and push factors, respectively. For McKeown, pull factors draw individuals into alternative work arrangements because of the potential intrinsic benefit of the work. Pull factors draw workers into independent contracting roles because of the greater perceived availability of factors like personal autonomy, increased income, and a better work/life balance in comparison to traditional work arrangements. McKeown's push factors arise from needs placed upon the contractor because of involuntary unemployment or the inability to secure employment in one's preferred career. Push factors cause workers to choose contracting arrangements to cope with career and financial needs, which are currently unattainable through other employment. As such, contracting represents the best alternative for earning an income or for career development until the worker can secure standard employment or contract work that is more preferred. Beyond independent contracting, pull and push factors have also been studied in other work arrangements such as temporary work (Krausz et al., 1995), crowdsource worksites (Amazon Mechanical Turk; Keith et al., 2019) and part-time work (Feldman, 1990).

It is important to consider the variety of factors when choosing contract work and their effect on work outcomes. Prior research has focused on job satisfaction as a key

work outcome. Job satisfaction is the worker's evaluation of the favorability of their work (Judge et al., 2012). From a sample of self-employed workers, evidence shows that pull and push related factors for choosing work arrangements differentially influenced measures of job satisfaction. Those with a higher level of pull factors reported a higher level of job satisfaction (Feldman & Bolino, 2000). This study attempts to replicate the positive (inverse) relationship of pull (push) factors with job satisfaction among a specific population of independent contractors—university adjunct faculty.

While previous research shows a linkage between the factors driving workers' decisions to engage in independent contractor work and subsequent job satisfaction, research on *why* pull (push) factors are positively (inversely) related to job satisfaction is limited. To fill this gap in research, this study applies the organismic integration theory (OIT), a mini theory of self-determination theory (SDT; Deci et al., 2017; Deci & Ryan, 1985a, 2000; Ryan & Deci, 2000) to explain the differential impact of pull and push factors on job satisfaction. Under OIT, the level of observed positive work outcomes, including job satisfaction, are higher due to the positive experience of actively pursuing and accomplishing meaningful work. When one's work is less aligned with personal goals, values or interests, the experience of doing less meaningful work leads to lower levels of positive work outcomes. Importantly, the factors that pull and/or push individuals into choosing contract work represent the benefit expected from the work based on worker goals, values and interests. Pull factors represent an expectation that doing the work will be personally meaningful and in turn be more personally satisfying. Contrarily, push factors are an expectation that the work will be less meaningful, but is

necessary to take due to more imminent needs of the contractor. This necessity of opting for inferior work leads to lower expectations of satisfaction.

It is not until individuals have entered into a specific, contract work arrangement that they are able to determine the extent to which their contract work is actually meaningful. The extent to which they positively experience the contract work determines an individual's level of job satisfaction. Consistent with OIT, I use autonomous and controlled motivation as on-the-job indicators to determine the extent to which the contractor is able to actually pursue meaningful work. Autonomous motivation is characterized by a personal, self-driven willingness to engage in specific work activities (Deci et al., 2017; Deci & Ryan, 2000). Willingness arises as the worker has the ability to pursue and accomplish personal goals, values or interests (Ryan & Deci, 2017). I expect that contractors who hold strong expectations of the work being meaningful will be more likely to experience autonomous motivation and greater job satisfaction. Controlled motivation develops from individuals' perception that their behavior is regulated by external forces or demands (Deci et al., 2017; Deci & Ryan, 2000). This sense of external regulation will be higher when contractors feel compelled to accept a work role out of necessity or as an inferior option of employment. This necessity to accept contract work leads to higher levels of controlled motivation while being inversely related to positive work outcomes. I expect that contractors accepting work more as a response to external factors will experience a stronger level of controlled motivation and a lower level of job satisfaction.

When contractors accept particular work, they hold specific expectations to the degree that their work will be personally meaningful. Higher (lower) expectations of

meaningfulness are likely related to a greater level of in-role autonomous (controlled) motivation, which in turn leads to higher (lower) job satisfaction. However, this may not always be the case. There may be context-specific uncertainties that may or may not allow contractors to be successful in their work. These uncertainties may inhibit or negate the positive work outcomes possible through meaningful work. When uncertainties arise, support from supervisors and organizations can be beneficial in supporting contractors. Support may also assist contractors to identify how their work may be personally meaningful (Eisenberger & Stinglhamber, 2011; Rhoades & Eisenberger, 2002). For example, perceived support can be represented by things such as clarifying work responsibilities, orientating to the workplace and providing advice in challenging situations. In this way, I expect that perceived support by supervisors and organizations will moderate the relationship between pull factors and autonomous motivation. When the level of perceived support by supervisors and/or organizations is high (low), the positive relationship between pull factors and autonomous motivation will be stronger (weaker). Perceived supportive behaviors may also help contractors identify personal significance in their work by supporting identification with work-related behaviors and values (Deci & Ryan, 2000; Ryan & Deci, 2000). As such, supportive supervisors and organizations may help contractors see how their work is actually meaningful, effectively reorienting perceptions that their work is personally valuable. This in turn, positively impacts contractor autonomous motivation. Therefore, I expect that perceived support by supervisors and organizations will also moderate the relationship between push factors and autonomous motivation. When perceived support is high (low), the inverse relationship between push factors and autonomous motivation will be weaker (stronger).

In summary, this study attempts to explain how workers' reasons for choosing contract work influence their job satisfaction. The reasons why workers choose contract work are based on the type of meaning contractors expect from the work, which are characterized as pull and push factors. The relationship between these reasons and subsequent job satisfaction is explained through individuals' actual on-the-job experience of the extent to which their work is meaningful, as measured by autonomous and controlled motivation. This study also suggests that perception of supervisor and organizational support will lead to contractors higher in pull factors being more satisfied in their work and contracting higher in push factors being less dissatisfied with their work.

To test this model, I recruited and surveyed adjunct instructors at two universities. Data were gathered at three different time points in an attempt to control for common method bias (Podsakoff et al., 2003). The first survey round collected demographics, work and worker characteristics and the scales measuring push and pull factors. The second survey round collected the on-the-job mediators (autonomous and controlled motivation; Gagné et al., 2015) and moderators (perceived supervisor and organizational support; Eisenberger et al., 1986; Eisenberger et al., 2002). The final round had adjunct instructors respond to scale items related to job satisfaction (Brayfield & Rothe, 1951). Because respondents, themselves, are the most reliable source of the perceptual and attitudinal constructs measured in this study, it was appropriate to use single-source data. Control variables included: personal demographics (e.g. age, gender, race), work qualifications (e.g. highest degree attained, years of experience, number of schools adjuncting at, course delivery methods, other employment, whether teaching is a primary

or secondary source of income), and a categorical variable for the university from which adjuncts were sampled. After screening data for completeness and effort (DeSimone et al., 2015), the model was estimated using SPSS 27 with the mediation and moderated mediation hypotheses tested using the PROCESS macro (Hayes, 2017).

This dissertation contributes to the understanding of independent contractor motivation and job satisfaction. Results showed that the reasons why individuals choose contracting work does matter as they relate to job satisfaction. Specifically, those entering contracting work with higher expectations that the work will be personally meaningful showed higher levels of job satisfaction, which was fully mediated by higher levels of autonomous motivation experienced in the work. Those who were pushed into contract work were less satisfied, but it does not appear that this relationship was explained by perceptions of greater controlled motivation or less autonomous motivation on-the-job. As such, this study suggests that when recruiting and selecting contractors, contracting with those who will find the work interesting and meaningful should have the biggest impact on contractor autonomous motivation and job satisfaction. For contractors who are pushed into contract work, not only will they report less job satisfaction on-the-job, but they appear to be finding alternative work more readily than contractors pulled into the work.

This dissertation also makes an important contribution to the contextualization of leadership in alternative work arrangements. With the increase of U.S. workers engaged in alternative work arrangements, there is an increasing need to understand this segment of the work population. The largely transactional nature of alternative work arrangements and independent contracting specifically, calls into question if and how leadership may

be present in these work relationships. This study failed to show that perceived supervisor and organizational support influence the relationship between contractors' reasons for engaging in contract work and their level of on-the-job autonomous motivation. These non-results, raise questions whether leadership can reasonably be expected to influence contractors and if it could, what types of leadership could be influential.

CHAPTER 2: THEORY AND HYPOTHESES

Independent Contract Work

Independent contracting is a subpopulation within a broader set of alternative work arrangements. Alternative work arrangements have been more broadly classified by the level and type of flexibility introduced to the administrative, temporal and geographic control exerted by the organization in standard employment relationships (Ashford et al., 2007; Spreitzer et al., 2017). Independent contracting arrangements reduce the level of administrative control that the organization may exert in the relationship. Instead, effort and work completion is the primary responsibility of the contractor (Cappelli & Keller, 2013; Spreitzer et al., 2017). For independent contractors, once the contract for work deliverables, timing and payment are agreed upon, the contractor drives or manages the work process within the contract terms. In general, contractors may work full- or part-time on one or more contracts at a time (Cappelli & Keller, 2013). They are classified as self-employed, with their work being on behalf of the client organization (Spreitzer et al., 2017). Contractors are generally expected to be responsible for their own taxes and benefits (Cappelli & Keller, 2013), which incentivizes organizations to both increase the use of contractors and misclassify employees as contractors. Recent legal cases regarding the classification of contractors for tax purposes in the U.S. (e.g. Findlay, 2019) have reaffirmed that the work and effort must be controlled by the contractors themselves and not the organization. For the purposes of this study, independent contractors are defined based upon their level of control of their work and not on their tax classification.

While contract work and the contractors completing it may appear to be predominantly homogenous, their rationale for choosing this type of work arrangement

can be quite different. Carr (1996) synthesized two paths to self-employment. The first originated from Knight (1933) who suggested that workers with the skills and abilities needed for self-employment will pursue self-employed work. In contrast, the second path suggested that the pursuit of self-employment work is a response to limitations encountered in standard employment (Schumpeter, 1934) or a way to stave off the negative effects of unemployment (Phillips, 1962). McKeown (2005) contextualizes these two competing rationales for self-employment through pull and push factors, respectively. McKeown suggested that pull factors effectively draw workers into contracting work arrangements, for reasons like greater personal autonomy, money, work/life balance, and/or work flexibility. On the other hand, McKeown suggested that workers are pushed into contracting work because such arrangements are the best alternative for workers to respond to job loss, the inability to find standard work, or a precarious level of current employment.

The perspectives and competencies that contractors bring to their work arrangements have been shown to influence work choice and work-related outcomes. In a review of part-time employment, Feldman (1990) proposes a theoretical model to explain the differences in how part-time employees experience their work. At the worker level, Feldman argued that certain work arrangement characteristics (e.g., voluntary versus involuntary) and employee demographics (e.g., age, family status, etc.) led individuals to accept certain jobs, as well as influenced their motivation and level of satisfaction. Bidwell and Briscoe (2009) showed that the choice to enter and stay in contracting arrangements is related to the education, work experience and family status of contractors. Both of these studies identified antecedent characteristics that could be

classified as pull or push factors. However, they did not explicitly categorize them as such. Bidwell and Briscoe found contracting was more likely to be chosen when workers were not able to access traditional employment because of insufficient experience or an involuntarily termination (i.e., push factors) or when workers had a better developed set of skills and higher level of experience (pull factors). Additionally, they found that family demographics can influence the strength of pull factors (e.g., greater schedule flexibility) and push factors (e.g., selecting work to meet immediate financial needs).

One example of a set of independent contractors are adjunct university instructors. Adjunct instructors serve as a set of independent contractors employed by colleges and universities to teach particular courses related to their academic and professional expertise. Adjunct instructors are contracted for specific courses, generally without further promise of employment in subsequent university terms and may maintain work outside of their teaching contracts. Additionally, adjunct instructors are given a broad range of autonomy to construct and deliver lesson plans within the bounds of curricular expectations provided by their department chair or supervisor. Instructors may enter adjunct work for multiple reasons. Some instructors accept adjunct roles for the experience and the personal satisfaction from the role. These pull factors may include such things as the enjoyment of teaching and flexible schedules (Shiffman, 2009) or wanting to give back to their profession (Ross, 2003). Alternatively, some instructors are pushed into adjunct roles as a means to enter a new career or earn an income until they can be hired into a full-time role (Ross, 2003; Shiffman, 2009).

Relationship of Push/Pull Factors to Job Satisfaction

Prior research has shown that characteristics of alternative work arrangements can differentially impact reported job satisfaction. For contractors and those engaging in alternative work arrangements, one's job or work refers to the specific set of tasks within an arrangement. For contractors with only one work arrangement, perceived job satisfaction can be considered as attributable to that work. In general, job satisfaction is a work attitude that includes both a cognitive and affective evaluation of one's work (Judge et al., 2012; Judge & Kammeyer-Mueller, 2012). Job satisfaction is a common individual-level outcome used in motivation research (Diefendorff & Chandler, 2011). Job satisfaction is an important general indicator of how contractors experience their work. Job satisfaction is also related to many other important work outcomes such as: personal psychological health outcomes (Judge & Bono, 2001), organizational citizenship behavior (Organ & Ryan, 1995), turnover and turnover intentions (Tett & Meyer, 1993). These outcomes are important determinates of overall organizational functioning. Because job satisfaction is connected to a broad range of other relevant outcomes, it is an important outcome to use in this research.

Reported job satisfaction between workers in standard and alternative work arrangements has been shown to vary between work arrangements and work characteristics. A number of studies have explored the differences in job satisfaction among the population of self-employed, which captures the self-driven aspects of contracting work. When comparing the type of work arrangement, research has shown that the self-employed are relatively more satisfied than traditionally employed (Álvarez & Sinde-Cantorna, 2014; Cueto & Pruneda, 2017; Hundley, 2001; Prottas, 2007).

Longitudinal studies, however, have shown that despite initial increases in job satisfaction for the self-employed, over time these results may be more transitory (Georgellis & Yusuf, 2016). Over a horizon of two to three years, there was not a significant difference in the job satisfaction between self- and traditionally employed workers (Hanglberger & Merz, 2015).

For the self-employed, their rationale for choosing to work for themselves has been shown to be related to differences in job satisfaction. Feldman and Bolino (2000) showed that job satisfaction was higher for workers choosing self-employment for factors related to autonomy and independence in comparison to factors relating to safety and security. These results align with other studies that have shown that higher levels of job satisfaction have been explained by increased levels of autonomy and work schedule flexibility (Álvarez & Sindi-Cantorna, 2014; Hundley, 2001), interesting work (Benz & Frey, 2008), the ability to voluntarily choose self-employment opportunities (Cueto & Pruneda, 2017), and anticipation and expectation of satisfaction (Hanglberger & Merz, 2015). Alternatively, reported job satisfaction is lower when seeking self-employment for material outcomes (Benz & Frey, 2008) and for involuntary reasons (Cueto & Pruneda, 2017). For the self-employed, reasons for self-employment reflecting pull factors (e.g., autonomy, voluntary choices and personally attractive work characteristics) were related to higher job satisfaction, while reasons reflecting push factors (e.g., involuntary, focus on material gains) were related to lower job satisfaction.

The reasons for choosing self-employment are shown to be related to job satisfaction. These results can also be generalized to non-standard employment like contracting. As defined above, independent contracting is one particular subset of self-

employment whereby the contractor is performing work on behalf of another organization while remaining administratively separate from that organization. For independent contractors, influences on job satisfaction include their reasons for choosing contract work, the independence of self-employment and the type of work arrangement. In exploring the job satisfaction between traditional employees, self-employed business owners and contractors, Prottas and Thompson (2006) concluded that the variability in job satisfaction initially attributed to the type of work arrangement was actually explained by worker demographics and work characteristics, like autonomy. In a meta-analysis comparing part-and full-time workers, Thorsteinson (2003) found that job satisfaction was significantly higher for those voluntarily versus involuntarily choosing part-time work arrangements. However, they found no difference in job satisfaction between part-time and full-time work. In a study of contractors, VandenHeuvel and Wooden (1997) differentiated contractors into independent and dependent contractors. Independent contractors freely choose to work for the organization based upon their personal interest in the work, while dependent contractors needed the work, as an alternative to unemployment. They found that independent contractors reported significantly higher job satisfaction than dependent contractors, suggesting that the difference may arise from pull-type factors like autonomy and freedom to choose opportunities compared to the push-type factors underlying dependent contractor work choices. While not directly implicating pull and push factors among contractor workers, existing evidence from studies of self-employed and non-standard employment arrangements suggests that work arrangements that enhance worker autonomy, have more interesting work or better meet the personal needs of the worker will be related to higher levels of job satisfaction.

Workers who choose self-employment or non-standard employment due to material needs or a lack of viable standard employment options exhibit lower levels of job satisfaction. Based on these results, I hypothesize that workers with higher levels of pull related factors, will have higher levels of job satisfaction. Similarly, workers entering contract work with higher levels of push factors will have lower levels of job satisfaction.

Hypothesis 1: The higher presence of pull factors for choosing contracting work corresponds to higher levels of reported job satisfaction.

Hypothesis 2: The higher presence of push factors for choosing contracting work corresponds to lower levels of reported job satisfaction.

Self-Determination Theory and Organismic Integration Theory

Previous research on work arrangements has shown a relationship between the reasons for choosing work with job satisfaction. While I expect to observe similar relationships within the subpopulation of independent contractors, it is important to understand potential mediators and moderators that may impact the strength of those relationships. The reasons for choosing contract work are not sufficient, however, for explaining why contractors are or are not satisfied with their work. Contractor job satisfaction arises from the experience of the contractor within the actual work role, the organizational context and leadership. As a foundation for understanding the pathway from pre-employment expectations to in-role satisfaction, I draw upon the organismic integration theory (OIT) sub-theory of self-determination theory (SDT).

SDT (Deci et al., 2017; Deci & Ryan, 2000; Ryan & Deci, 2017; Ryan et al., 1996) provides a general motivation theory that focuses on the pursuit of innate personal goals, aspirations and values and includes the process of how an individual attempts to

satisfy these personally valuable things. In pursuing these things, individuals satisfy psychological needs that lead to personal growth. Self-determination occurs when an individual feels that they can freely engage in and accomplish their goals or successfully live out their values. Self-determination is categorically defined over a continuum, with autonomous motivation representing higher levels of internally-driven behaviors while controlled motivation is related to externally-driven behaviors. Higher levels of self-determination are also related to higher levels of positive work outcomes. In the workplace, SDT provides a framework to understand how factors like career goals, preferred job tasks, personal values, and family and social needs influence the work roles an individual may choose to pursue and how they experience this work once they are in that role. For example, an entry-level worker may have a career goal to be promoted into a supervisor position. As the worker is recognized for being successful in their current role, the sense of accomplishment and perspective that they may be promoted may increase their autonomous motivation and associated positive work outcomes in their current role. In this way, SDT provides a helpful framework for understanding why worker motivation and outcomes have occurred.

For independent contractors, pull and push factors represent their expectations of the personal benefits that can be gained from their prospective work. It is the actual meaningfulness and accrual of tangible and intangible benefits from the work, however, that shape contractor motivation and ultimately job satisfaction. This relationship between a worker's ability to engage in personally meaningful, interesting or beneficial activities and the resulting motivation has been developed in the SDT subtheory of OIT (Deci & Ryan, 2000; Ryan & Deci, 2017). OIT suggests that when work is viewed as

more integrated with personal goals, needs, values or interests, motivation will be more internally driven. Conversely, the inability to pursue or accomplish personally meaningful work will lead to perceptions that work is more externally driven. Within the context of independent contracting, OIT suggests that when contractors are able to complete personally meaningful work, they will be more internally driven in carrying out this work and will experience higher levels of positive work outcomes. While the expected benefits from work as represented by pull and push factors may be related to job satisfaction in general, this relationship is only recognized to the degree that contractors can meet these expectations in their work context. In this way, the perceived ability to successfully pursue meaningful work mediates the relationship between the expected benefits from contracting, as represented by pull and push factors, and job satisfaction.

Autonomous and Controlled Motivation

In workplace SDT research, the type and strength of motivation experienced by the worker indicates the level of meaningfulness of the work. In general, motivation is “an unobservable force that directs, energizes, and sustains behavior over time and across changing circumstance” (Diefendorff & Chandler, 2011, p. 66). In OIT, the degree that one displays more internally-driven motivation arises from the ability to pursue meaningful work (Deci & Ryan, 2000; Ryan & Deci, 2000). As defined previously, self-determination is defined over a continuum, with higher levels of self-determination called autonomous motivation and lower levels called controlled motivation.

Autonomous motivation describes behaviors that are regulated by the worker and where the worker perceives that they have control over successfully completing their work (Deci et al., 2017; Sheldon & Elliot, 1998). Autonomous motivation includes

behaviors that are motivated based on personal goals, interests, aspirations and additional behaviors that the individual identifies as personally valuable (Deci et al., 2017; Deci & Ryan, 2000; Ryan & Deci, 2017). For example, contractors choosing work due to a higher level of pull factors believe that they can pursue and complete work that will be more intrinsically satisfying. As contractors are more successful in completing personally meaningful work, expectations will be realized. Contractors meeting the expectations of meaningful work as indicated by pull factor strength should exhibit greater levels of autonomous motivation and, subsequently, job satisfaction. In workplace research, autonomous motivation has been shown to be positively related to performance outcomes such as goal attainment (Sheldon & Elliot, 1998), knowledge sharing (Foss et al., 2009) and sustained effort (Sheldon & Elliot, 1998). Additionally, autonomous motivation was positively related to psychological outcomes such as work satisfaction (Richer et al., 2002) and commitment (Fernet et al., 2012) while being negatively related to measures of exhaustion (Fernet et al., 2012; Richer et al., 2002), burnout (Fernet et al., 2010) and stress (Trépanier et al., 2012).

Controlled motivation describes lower levels of self-determination in worker behaviors. Under controlled motivation, workers feel that their behaviors are regulated externally (Deci et al., 2017; Deci & Ryan, 2000; Ryan & Deci, 2017). Extrinsic regulation attempts to incentivize behaviors through contingent rewards and punishments. In its strongest case, extrinsic regulation may demand compliance or even use force or coercion to achieve the desired behaviors. Contractors entering work roles due to higher levels of push factors choose work roles in part to fulfill external needs or as an alternative to a preferred job. In controlled motivation, feeling compelled to complete

work that is not as personally interesting or meaningful builds a perception that work is externally driven. Less attention has been given to understanding the impact of controlled motivation on workers. Where it has been studied, controlled motivation was shown to be negatively related to giving knowledge (Foss et al., 2009) and not related to goal attainment (Sheldon & Elliot, 1998).

As separate descriptors of self-determination, the combination of autonomous and controlled motivation simultaneously influence personal wellbeing and work outcomes, namely job satisfaction. Sheldon and Krieger (2014) simultaneously tested the effects of both motivation types on psychological wellbeing in a student population, showing a positive (negative) effect for autonomous (controlled) motivation. Longitudinally, Sheldon and Krieger (2004) found that the relative increase in controlled motivation in comparison to autonomous motivation was related to lower levels of positive affect and life satisfaction and increases in negative affect. When considering the effects of both autonomous and controlled motivation on work outcomes, autonomous motivation was positively related to positive work outcomes like work performance (Kuvaas et al., 2017) and engagement (Chambel et al., 2015), while inversely related to negative outcomes like turnover intentions (Kuvaas et al., 2017) and burnout (Chambel et al., 2015). Similarly, controlled motivation was inversely related to the same set of positive work outcomes and positively related to the set of negative outcomes (Chambel et al., 2015; Kuvaas et al., 2017).

Autonomous and controlled motivation have been empirically observed as mediators between antecedents and work outcomes, but the understanding of their role as mediators is underdeveloped. Mediation studies have shown empirical relationships,

which suggest that self-determined motivation mediates relationships between employee experiences in the workplace with work satisfaction (Richer et al., 2002) and general causality orientations with job satisfaction and commitment (Lam & Gurland, 2008). While these studies claim to support mediation, the indirect effects of the antecedents on the outcomes were not estimated. Additionally, Güntert (2015) estimates a multiple mediation model including all categories of self-determined motivation as mediators of multiple antecedents and outcomes. In other studies, theoretical support for motivation as a mediator is given through the opportunity to satisfy psychological needs. Baard et al. (2004) showed that perceived psychological needs satisfaction mediated the relationship between causality orientations and autonomy support on performance and adjustment in a banking context. Vansteenkiste et al. (2007) supported this assertion that mediation occurs through the perception of needs satisfaction, which explains the relationship between work value orientation and multiple wellbeing measures. In these mediation studies, however, antecedents have been measures of worker or work characteristics that can potentially influence the level of needs satisfaction, but are more distal to the motivation experienced. As such, the mediating role of motivation observed empirically is underdeveloped theoretically.

When considering the relationship of the reasons for choosing contracting work to the resultant job satisfaction, I am proposing that the type and strength of contractors' motivation plays a mediating role. In representing how contractors are experiencing their work, autonomous motivation captures the degree to which the expected meaningfulness of work represented in pull and push factors is realized by contractors, whereas the level of controlled motivation captures the degree that work is perceived as externally driven.

In this way, OIT provides the theoretical underpinnings supporting autonomous and controlled motivation as mediators of the relationship between pull/push factors and job satisfaction. Those who choose contract work that they expect will be more meaningful (higher level of pull factors) will be more likely to actually experience higher levels of autonomous motivation on-the-job, which may explain the expected positive relationship between pull factors and job satisfaction. Similarly, those who choose contract work because of the inability to secure work, find more desired work or pursue their preferred career path (higher level of push factors) will be more likely to experience their work as externally driven as shown through higher levels of controlled motivation on-the-job, which may explain the expected inverse relationship between push factors and job satisfaction. Additionally, contractors with higher levels of push factors will be less likely to experience meaningful work as shown through lower levels of autonomous motivation on-the-job, which may also explain the expected inverse relationship between push factors and job satisfaction.

Hypothesis 3: The positive relationship between pull factors and job satisfaction is mediated by higher autonomous motivation.

Hypothesis 4a: The negative relationship between push factors and job satisfaction is mediated by higher controlled motivation.

Hypothesis 4b: The negative relationship between push factors and job satisfaction is mediated by lower autonomous motivation.

Supervisor and Organizational Support as Moderators of Motivation

Within contract work, performance expectations and payments are determined prior to the execution of the contract. Under the terms of this agreement, contractors are

typically allowed additional freedoms on timing, location and control of their work processes. This relaxation of administrative control typically exercised with standard employees means that a contractor is expected to oversee their own work and related outcomes. The establishment of contractual terms for independent contractors is essentially a management process. As defined, management is concerned with the strategy, workplace decision making (Zaleznik, 1977), and complexities (Kotter, 1999) of workplace processes in goal achievement. Management has been characterized as oriented more toward task completion (Kniffin et al., 2020) and associated with competencies that promote such things as rules, order, safety, planning and productivity (Simonet & Tett, 2013). As such, the management process of traditional work arrangements is incorporated into the contracting process and summarized in the actual contract documents.

While the work outputs of the contracting role may be defined, there are additional organizational aspects (e.g., culture, decision making protocols, technology accessibility, etc.) that can influence how a contractor experiences their work. For example, the overall work specifications for adjunct instructors are relatively straightforward. For most instructors, they need to deliver a defined set of content within a specific number of contact hours, be available for office hours on a regular basis and be able to show specific student outputs that justify assigned grades. What is uncertain prior to beginning the adjunct role are things like the time needed for class preparation and grading, the ease of using instructional technology, how to manage difficult student situations, and the prevailing culture in the classroom. While an adjunct instructor has expectations about these uncertainties prior to accepting their contract, how they respond

and adapt to these uncertainties will influence the meaningfulness and interestingness they experience in their work (Deci et al., 1989).

Because contract work is primarily self-driven, it raises questions regarding the degree that leadership through supervisor and organizational support may influence contractor autonomous motivation, if at all. For an organization, the incentives to use contract workers for specific types of work arise from the ability to reduce the administrative burden for organizational leadership. While on the surface this may occur, it does not resolve the questions of whether leadership interventions could be appropriate to enhance worker performance and job satisfaction. In a juxtaposition to management, leadership has been defined to include support for employees to address and overcome challenges (Zaleznik, 1977) and create organizational change (Kotter, 1999). Overall, leadership is perceived as more relationally focused (Kniffin et al., 2020), focused on competencies such as: intrinsic motivation, creativity, ambiguity and seeking input (Simonet & Tett, 2013). The consideration a leader expresses towards the situation of a worker has been meta-analytically shown to be strongly related to motivation and job satisfaction (Judge et al., 2004). In addition, consideration is more strongly related to these outcomes than task orientation. Leadership, by definition, should have a role in supporting independent workers with the uncertainties or surprises they encounter in completing their work. Within OIT, clarifying expectations and supporting contractors in problem solving can positively influence the meaning and benefit experienced in the role. From a broader SDT perspective, leadership promotes contractor autonomous motivation through increasing the satisfaction of psychological needs, such as autonomy. Autonomy-supporting behaviors attempt to allow workers choices, volition and the ability to direct

their own behaviors (Gilbert & Kelloway, 2014). Autonomy support has been shown meta-analytically to have a medium level effect on autonomous motivation ($\rho = .38$, 95% C.I. = [.35,.42]; Slemp et al., 2018). Further, autonomy-supporting interventions by leaders have been related to higher levels of autonomous motivation (Baard et al., 2004; Deci et al., 1989; Forest et al., 2014; Lynch Jr et al., 2005; Sheldon & Krieger, 2007).

A general set of leadership behaviors, which supports worker autonomy in standard organizational employment, is perceived organizational support (POS) and perceived supervisor support (PSS; Eisenberger et al., 1986; Eisenberger & Stinglhamber, 2011; Kottke & Sharafinski, 1988). Both POS and PSS are attributional assessments made by workers that their organization or supervisor has provided beneficial resources (e.g., technical assistance, emotional support, etc.) to them. The broader concept of perceived support was developed out of the theories of social exchange (Blau, 1964). In this theory, exchange partners interpret and evaluate the beneficence of others' behaviors when choosing their own response. For example, if an adjunct instructor is supported with technical assistance to use the university's learning management system, the instructor may be willing to provide additional effort in their course and talk favorably about technical support staff. Perceived support influences job satisfaction and other positive work outcomes through an understanding that technical and socio-emotional assistance is available when uncertainties or challenges arise (Eisenberger & Stinglhamber, 2011). Perceived support, however, does not prescribe a specific set of actions that a supervisor or organization should utilize because beneficence is assessed by the contractor. Rather, perceived support implies that the leadership provides targeted support to workers to successfully pursue meaningful work. Stronger

assessments of POS and PSS represent contractor perceptions that their supervisor or organization provides autonomy supporting resources for them to carry out their work.

While the strength of the contractor's pull factors is expected to be related positively to autonomous motivation, the strength of perceived support will accentuate the level of autonomous motivation experienced. In SDT research, POS and PSS have been shown to be antecedents of autonomous motivation, which in turn mediated the relationship between POS and PSS with outcomes measures. In these studies, POS was positively related to autonomous motivation (and positive outcome measures; Gillet, Gagné, et al., 2013; Gillet, Huart, et al., 2013). PSS has also been shown to be positively related to autonomous motivation and wellbeing outcomes (Beenen et al., 2017; Chambel et al., 2015; Chong et al., 2021; Güntert, 2015). POS and PSS may also interact with other antecedents to promote autonomous motivation. For example, the expectation that contract work will be meaningful, represented by higher levels of pull factors, is expected to create higher levels of autonomous motivation. When perceived support is stronger, contractors are more likely to achieve this expectation whereas an absence of support may lead contractors to be less successful and experience less autonomous motivation. Higher levels of perceived support will be more impactful for contractors with greater expectations of meaningful work. These contractors could face greater deficits of meaning in their work due to uncertainties or challenges without perceived support. In contrast, those entering a contract with weaker levels of pull factors will have lower expectations of meaningfulness and unmet expectations will not be experienced as harshly. In short, POS and PSS may help contractors realize the expected level of needs satisfaction by preventing unanticipated events or challenges negatively impacting their

autonomous motivation. As such, POS and PSS are autonomy supporting behaviors that can facilitate the development of autonomous motivation for contractors all levels of pull factors.

Hypothesis 5: The positive relationship between pull factors and autonomous motivation will be stronger (weaker) when a) POS and b) PSS are high (low).

Finally, perceived support can also influence the relationship between the strength of push factors and autonomous motivation by helping contractors understand the personal significance of their work. For contractors, push factors represent an expectation that work will be less interesting and hold fewer benefits as they are entering a less preferred work option. Thus, contract work is expected to be related to lower levels of meaningfulness. Perceived support can influence these perceptions by supporting contractors to internalize the importance of their work. Internalization involves the worker beginning to identify with the importance of the work within their broader set of goals, aspirations and values (Deci & Ryan, 2000; Ryan & Deci, 2000; Ryan & Deci, 2017). In a work role, supervisor and organizational support in the internalization process may help workers to focus on alternative intrinsic goals, values or aspirations that can be met through their work or help contractors value what can be satisfied through their work. For example, a contractor may choose a work role because a preferred job in their career path is not available. A supportive supervisor in this situation may help the contractor understand how their current work can fit into their career path or may help them redefine their career path given their current work. As such, POS and PSS can impact autonomous motivation by refocusing how a worker's current role meets intrinsic goals and/or redefining intrinsic goals in relationship to their work. Contractors receiving

higher levels of POS and PSS will be better supported in processing the personal significance of their work, which will positively influence self-determination and autonomous motivation. Contractors feeling pushed into work may be more inclined to experience controlled motivation related to their work. However, when they experience higher levels of leadership through POS and PSS, they may still experience a positive increase in autonomous motivation.

Hypothesis 6: The negative relationship between push factors and autonomous motivation will be weaker (stronger) when a) POS and b) PSS is high (low).

CHAPTER 3: METHODS

Sample and Procedure

To test this model, I recruited and surveyed adjunct instructors from two universities. Adjunct instructors, a pool of independent contractors, are utilized to deliver courses related to their academic expertise. Adjunct contracts are fixed in length, tied to specific course content and delivered during a specified time period, typically a semester. The terms of course delivery represent a sufficient level of administrative control so adjunct instructors are legally classified as W-2 workers (i.e., they are paid as school employees). Because they are expected to be self-directing in delivering their specific course(s) within a specific school term, they are appropriately classified as independent contractors as defined in this study. Additionally, because adjunct instructors choose this role because of a diverse set of pull and push factors (Ross, 2003; Shiffman, 2009), I would expect to be able to observe the full range of pull and push factors and associated relationships in sampling this population. In this study, it is appropriate to use single-source data because respondents, themselves, are the most reliable source of the perceptual and attitudinal constructs measured in this study.

At each university, data were gathered through three survey rounds (see Appendix 1 for the survey instruments). The use of multiple rounds of surveying helps control for potential common method bias due to data being collected at a single time point (Podsakoff et al., 2003). The first round of data collection gathered respondent demographics, professional and work experience data and responses to the scales for push and pull factors. The second round of data collection surveyed on-the-job measures with respondents completing scales related to autonomous and controlled motivation

(Gagné et al., 2015), as well as perceived supervisor and organizational support (Eisenberger et al., 1986; Eisenberger et al., 2002). The final round had instructors respond to scale items related to job satisfaction (Brayfield & Rothe, 1951). The first round of surveying was initiated at the start of the fall term with both universities surveyed in the same academic year. At university one, survey rounds were launched three weeks apart and were separated by one week each. In addition to the initial invitation, three reminders were sent out during each round to those who had not yet completed the survey. At university two, survey rounds were launched two weeks apart and were separated by one week each. For the first round, two general invitations were sent out via a university list serve. For the second and third rounds, an initial invitation was sent out and two reminders were sent to those who had not yet completed the survey. At both universities, survey rounds were separated by one week. Following each round, data were screened for respondent effort checking for completeness and speed of response (DeSimone et al., 2015), with those successfully completing a survey invited to complete subsequent surveys. Following the third survey, data were compiled into one dataset and incomplete responses were dropped. Participants successfully completing all three rounds of data collection were eligible for a random drawing for one of 20 gift cards valued at \$25 each.

To have sufficient power in the analysis of the model, a minimum final sample size of approximately 200 was needed. Determining an *a priori* sample size for moderated mediation models is challenging, as statistical power is related to the observed effect sizes and indirect effects do not come from of the product of two direct effects in standard or predictable ways (Hayes, 2017). This often means that more information is

required than is available for running simulations to determine sample sizes *a priori*. The target of 200 responses falls within traditional rules of thumb, suggesting that 10 observations per parameter estimated could be sufficient. Studies of statistical power in mediation and moderated mediation models show that when observed effect sizes are relatively small, models have very low statistical power. Whereas medium and large effect sizes should show sufficient power with samples of 200, with the use of resampling techniques (e.g, bias-corrected bootstrapping) improving the power of statistical tests (Fritz & MacKinnon, 2007; Preacher & Hayes, 2008).

Adjunct instructors were recruited from two mid-sized universities (~20,000 total students enrolled at each) that place an emphasis both on faculty research and undergraduate education. The first university is a private university located in the southeastern U.S., but has a strong global presence through international campus options and online courses. Approximately 75% of the student body is undergraduate students, with between 45-50% of students enrolling in online programs. The course schedule at this university is based on a quarters system, with five terms per year. Invitations for the first survey were sent to 1093 adjunct instructors with 243 (22.2%) submitting complete responses. From those submitting complete responses of the first survey, 185 (76.1%) submitted complete responses to the second survey. From that subpopulation, 173 (93.5%) submitted the third survey and passed both screens. For university one, this resulted in final sample size post screening of $N = 173$ with an overall response rate of 15.8%. There was one respondent with a single missing item on one scale. The missing item was replaced with the respondent's mean score from the other four scale items.

At university one, respondents were 72.8% male (25.4% female, 1.7% preferred not to say) with a mean age of 56.8 ($SD = 11.7$). Of respondents reporting ethnicity and race, 86.1% were White, 3.5% Black, 5.2% Asian, 4.1% Hispanic, 1.2% American Indian/Alaska Native, < 1% Native Hawaiian/Pacific Islander and 4.7% specified “Other.” To be qualified as instructors, one (0.6%) held a Bachelor’s degree, 76 (43.9%) held a Master’s degree, and 96 (55.7%) held a professional school or doctoral degree. Additionally, 88 (50.9%) instructors held additional professional certifications relevant to their teaching. There were 63 (36.4%) instructors that adjunct at more than one university, 120 (69.4%) had paid employment outside of their teaching work (57.8% full time, 11.6% part-time) and for 51 (29.5%) instructors, teaching was their primary source of income. On average, instructors had 27.4 years ($SD = 11.6$) of professional experience. They had 12.7 years ($SD = 8.8$) of adjunct experience with 10.2 years ($SD = 8.0$) of experience at the university teaching 1.4 courses ($SD = 1.4$) in the current term. A majority of instructors ($n = 158$; 91.3%) reported teaching at the undergraduate level, and 85 (49.1%) instructors reported teaching at the graduate level. A majority of instructors ($n = 156$; 90.2%) reported teaching primarily through online course delivery, with 14 (8.1%) instructors reporting delivering hybrid online courses only three (1.7%) reporting delivering courses in-person only. Prior to 2020, however, only 90 (52.3%) instructors reported teaching only online with 70 (40.7%) instructors teaching both online and in-person and 12 (7.0%) instructors teaching only in-person.

The second university is a public university located in the mid-Atlantic region. Approximately 90% of the student body are undergraduate students and programs are primarily in-person. The university system is based on a semester model, with fall, spring

and summer terms. Invitations were sent via an adjunct instructor list-serv to 472 adjunct instructors with 87 (18.4%) responding with complete responses to the first survey. From those completing the first survey, 77 (88.5%) submitted complete responses to the second survey. From that subpopulation, 73 (94.8%) submitted the third survey and passed both screens. For university two, this resulted in final sample size of $N = 73$ with an overall response rate of 15.5%.

At university two, respondents were 35.6% male (64.4% female) with a mean age of 47.2 ($SD = 13.9$). Of respondents reporting ethnicity and race, 95.9% were White, 2.7% Hispanic, 1.4% each were Black, Asian and American Indian/Alaska Native. To be qualified as instructors, two (2.7%) held a Bachelor's degree, 49 (67.1%) held a Master's degree, and 22 (30.1%) held a professional school or doctoral degree. Additionally, 33 (45.2%) instructors held additional professional certifications relevant to their teaching. There were 13 (17.8%) instructors that adjunct at more than one university, 45 (61.6%) had paid employment outside of their teaching work (35.6% full time, 26.0% part-time) and 30 (41.1%) instructors had teaching as their primary source of income. On average, instructors had 18.9 years ($SD = 12.8$) of professional experience. They had 7.0 years ($SD = 5.9$) of adjunct experience with 5.8 years ($SD = 5.8$) of experience at the university teaching 2.1 courses ($SD = 1.5$) in the current term. A majority of instructors ($n = 67$; 91.8%) reported teaching courses at the undergraduate level, and 19 (26.0%) reported teaching courses at the graduate level. Relative to university one, course delivery was more heavily weighted towards in-person ($n = 56$; 76.7%) in university two, with 11 (15.1%) reporting delivering courses online only and six (8.2%) reporting delivering hybrid in-person/online courses. Current delivery modes were similar to those prior to

2020, when 47 (64.4%) instructors reported delivering courses in-person, with 19 (26.0%) reporting teaching both online and in-person and seven (9.6%) instructors teaching online only courses.

From the sample of 246 respondents, there were five respondents who had missing demographic and work controls and those responses were dropped from the data analysis. For the study, there was a final sample size of $N = 241$ used in the analysis. This sample size is expected to have sufficient power for testing empirical relationships when effect sizes are not small.

Measures

Control variables.

The previously mentioned sample demographics were collected based upon the most current U.S. Current Population Survey (U.S. Census Bureau, 2013). Personal information was collected on age, gender and race/ethnicity. Additionally, the previously described adjuncting-related questions were researcher generated for the purpose of this study (see Appendix 1 for the specific items).

There are ten control variables used in the analysis. Contractor demographics (age, gender and race) were included as control variables as contractor demographics have been shown to be related to the reasons for entering contracting (Bidwell & Briscoe, 2009; McKeown, 2005). A categorical variable was coded for gender (0 = male, 1 = female), age was reported as a continuous variable (in years), and categorical variable was coded for race (0 = White, 1 = Non-White). The highest degree earned by an adjunct instructor and their prior experience adjuncting at their respective university were also included as control variables, as these have been shown to relate to the choices to enter

and remain in contracting arrangements (Bidwell & Briscoe, 2009). A categorical variable for education was coded by the highest degree earned (0 = Terminal degree, 1 = Master's or Bachelor's degree) and adjunct instructor experience at their respective university was included as a continuous variable measured in the number of years. Two control variables for the number of institutions that instructors were currently adjuncting at and whether adjunct work was a primary source of income were included due to their potential relationship how necessary the adjunct instructing work was. The necessity of adjuncting work can be related to the reasons for adjuncting, particularly to the strength of push factors. Categorical variables were coded for teaching at multiple institutions (0 = one institutions, 1 = more than one institution) and whether adjunct instruction work was the instructor's primary source of income (0 = no, 1 = yes). Finally, there were several work-related control variables included. To control for university level differences, a categorical variable was coded (0 = University 2, 1 = University 1). Teaching graduate courses and the mode of teaching were included as controls. Adjunct instructors may have preferences towards the level of the course (graduate versus undergraduate) and the mode for delivering courses (in-person versus online) that may influence instructors' decisions for adjuncting. While specific preferences may vary across adjuncts, a preference for teaching graduate students may be more likely pull an instructor into an adjuncting role. Additionally, adjuncts may tend to prefer face-to-face teaching roles, meaning those teaching online only may be more likely to be pushed into adjuncting. A categorical variable was coded for the level of the course(s) instructed (0 = no graduate courses, 1 = graduate courses) and a categorical variable was coded for the mode of instruction for course(s) (0 = in-person course components, 1 = fully online).

Push/pull factors.

Pull and push scales were each measured using researcher constructed scales. Scales were developed through a two-stage pilot study. In the first stage of the pilot study, a list of potential reasons why someone would become an adjunct instructor was developed. First, a set of reasons for becoming an adjunct instructor were drawn from existing research involving adjunct instructors (Altman, 2020; Chapman, 2011; Hiltz et al., 2007; Ross, 2003; Shiffman, 2009). This set of reasons were classified by the researcher as pull- or push-related according to the definition of each construct. Items classified as pull-related include statements like: “Teaching is satisfying” and “Teaching is a good challenge for me.” Items characterized as push-related include statements like: “The additional income is important” and “I like the recognition.” See Appendix 2 for the complete list of items. In the first stage of the pilot study, there were two survey questions, one for each construct. For each question, the definition of the construct (pull or push) was presented along with the associated items. Instructions had respondents to review the definition and the items and asked them to provide any additional statements that they thought should be added to the list of items for the particular construct definition. The survey was sent to 14 adjunct instructors known by the researcher. Results were gathered over one week and there were 10 responses completed. The additional responses generated from the pilot study were added to the initial list of rationale with duplicate and similar responses combined for a total of 33 reasons why someone may become an adjunct instructor.

Starting with the 33 items generated in the first stage of the pilot study, the second stage was intended to identify a final set of items for the pull and push factor scales.

According to the content validation methodology of Hinkin and Tracey (1999), the list of 33 reasons for adjunct instructing were evaluated for how well each of these items matched the pull and push factor definitions (see Appendix 3). Instructions asked respondents to evaluate how well each statement fit the pull definition and, separately, the push definition. The purpose was to identify separate sets items that pilot study respondents strongly endorsed (i.e., correspondence) as fitting one definition (i.e., push or pull) that were also only weakly endorsed as fitting the other definition (i.e., differentiation) (see Colquitt et al., 2019). Items were scored on a seven-point Likert type scale (1-“Extremely Bad” to 7-“Extremely Good”). Higher scores indicate that the item better matched the definition. Prior to completing the survey, a three-item comprehension check was given, with respondents not being allowed to proceed to the survey without passing it. The stage two survey was sent to the same sample of 14 adjunct instructors from stage one, with nine submitting responses. For each item, the correspondence to the target construct (pull or push factor) and the difference from the other construct were calculated. For each item, the correspondence was calculated by averaging the item scores across all respondents and dividing by the number of anchors (seven). The difference was calculated by averaging the difference between push and pull scores for each respondent and dividing by one minus the number of anchors (six). Both correspondence and difference are defined over the interval from minus one to one. According to Colquitt et al. (2019), items with high levels of correspondence with larger levels of difference from other constructs better reflect the associated construct and that construct alone.

Items were evaluated for inclusion as pull or push factors based on their associated correspondence and difference scores. For pull factors, many items scored relatively high on correspondence, but most showed lower levels of difference. For the pull scale, items were drawn from items with a correspondence greater than .75 and a positive difference score. These suggested items for the pull factors scale were compared to previously identified pull factors for contractors in general to ensure an accurate representation of the construct. For the push scale, the pilot study was unable to identify items with higher levels of correspondence and a positive difference score. To construct the push factor scale, new items were written by the researcher based on previously identified push factors (see McKeown, 2005) contextualized for adjunct instructors.

For each scale, five statements were written by combining the results from the pilot study with the definition of each of the constructs. For each item, respondents were instructed to rate how important each statement was when making the decision to become an adjunct instructor using a five-point Likert type scale (1-“Not important at all” to 5-“Very Important”). An example pull factor item is “I thought that I would get enjoyment from teaching.” An example push factor item is “I lacked other job opportunities” (see Appendix 1 for the complete instructions and scale items). Higher scores on pull factor items indicate stronger expectations that the work will be personally meaningful resulting in intrinsic needs satisfaction, whereas higher scores on push factor items indicate stronger expectations that the work is less personally meaningful but can satisfy extrinsically placed needs. Cronbach’s alpha for pull factors is $\alpha = .65$ and for push factors is $\alpha = .82$.

Motivation.

SDT defines motivation across a continuum of self-determination, naming subconstructs across the continuum based on the relative strength of underlying factors. Autonomous and controlled motivation are represented on opposite ends of the same motivation continuum (Howard et al., 2016). However, they are most often operationalized as separate constructs, as the type and strength of each motivation can be important to researchers. Conceptually, autonomous motivation measures the perceived strength of internal motivation and an internal locus of control, whereas controlled motivation measures the perceived strength of external control over actions. Because these subconstructs of motivation measure different areas of the motivation domain space, aggregation into a single measure does not make conceptual sense. Empirically, measuring autonomous and controlled motivation separately is supported as motivation subdimensions have been shown to be non-additive (Deci et al., 2017) and differentially related to antecedents and outcomes (e.g. Koestner et al., 2008; Sheldon & Elliot, 1998). While motivation may be a single construct, differences at the subconstruct level necessitates measuring and analyzing autonomous and controlled motivation separately (Howard et al., 2016).

Autonomous and controlled motivation was measured using the Multidimensional Work Motivation Scale (MWMS; Gagné et al., 2015). The MWMS has three items for each subdimension of motivation in SDT, as described in Deci and Ryan (2000). Autonomous motivation was measured using the intrinsic motivation subdimension and controlled motivation is measured using the two extrinsic regulation subdimensions. This scale has been translated and validated in multiple languages. Scale items are based off a

stem asking the degree to which the statement is true regarding why respondents put effort into their work, with responses reported on a seven-point Likert-type scale (1-“not at all”, to 7-“completely”). Autonomous motivation is measured using three items (e.g., “Because I consider it important to put efforts in this job”) and controlled motivation is measured using six items (e.g., “To get others’ approval”; Gagné et al., 2010; Kanat-Maymon et al., 2020) (see Appendix 1 for the complete instructions and scale items). Higher levels of autonomous motivation indicate higher levels of perceived self-determination and intrinsically motivated work. Higher levels of controlled motivation indicate a lower level of self-determination and a stronger perception of extrinsically regulated work. Cronbach’s alpha for autonomous motivation is $\alpha = .90$ and controlled motivation is $\alpha = .85$.

Perceived supervisor and organizational support.

Perceived supervisor and organizational support were each measured with the eight-item Survey of Perceived Organizational Support (Rhoades & Eisenberger, 2002), which is an abbreviated version developed from the original 36-item SPOS (Eisenberger et al., 1986). The unidimensional nature of the SPOS allows for a reliable short form (Rhoades & Eisenberger, 2002), with the eight-item scale having been shown to be highly correlated to the 36- and 16-item scales with relatively little deviation in the internal consistency reliability (Worley et al., 2009). Scale items make statements about the perceived level of support (e.g., “My [university/supervisor] cares about my opinions”), with POS and PSS measured using the same items interchanging “university” and “supervisor” (see Appendix 1 for the complete instructions and scale items). Responses were measured on a seven-point Likert type scale (1-“strongly disagree” to 7-

“strongly agree”), with two items reverse scored. Higher scores indicate higher perceptions of organizational and supervisor support. Cronbach’s alpha for POS is $\alpha = .93$ and for PSS is $\alpha = .93$.

Job satisfaction.

Job satisfaction was measured by a shortened form of the Brayfield-Rothe general job satisfaction scale (Brayfield & Rothe, 1951; Judge et al., 1998). The five-item scale includes statements like, “I feel fairly well satisfied with my present job,” and includes two reverse scored items (e.g., “Each day of work seems like it will never end”; see Appendix 1 for the complete instructions and scale items). Responses were recorded on a 7-point Likert type scale (1-“strongly disagree” to 7-“strongly agree”), with two items reverse scored. Higher scores indicate a higher level of perceived job satisfaction. Cronbach’s alpha for job satisfaction is $\alpha = .85$.

A summary of variables included in the analysis is presented in Table 1.

Data Analysis

Following completion of the third round of surveys, data from the two institutions were aggregated into a single dataset with incomplete responses dropped. Composite scale scores were calculated from their associated items along with scale reliabilities (Cronbach’s alpha). Descriptive statistics were estimated for demographic control variables and scale measures (see Table 2).

The factor structure of seven substantive scales (push and pull factors, autonomous and controlled motivation, perceived organizational and supervisor support, job satisfaction) was tested through a series confirmatory factor analyses (CFA) to assess whether each separate substantive scale represented a distinct factor. A series of seven

models, with incrementally increasing complex factor structures, were tested. The one-factor model included all scale items loaded on one factor and models increased until a seven-factor model was estimated with items each loaded onto their respective scale (see Table 3 for the full list factor structure models). The CFAs were estimated using a maximum likelihood estimator in SPSS Amos 27. Because models were non-nested, the use of a χ^2 difference test was not appropriate (Crede & Harms, 2019). For non-nested models, comparative fit can be assessed using the Comparative Fit Index (CFI). The CFI is robust to misspecification of factor pattern coefficients and has good properties when sample size is around $n=250$ (Hu & Bentler, 1998). For non-nested models, Cheung and Rensvold (2002) showed that an improvement in CFI of .01 is sufficient to support a significant improvement of fit for the more complex model. When the change is less than .01, then the more parsimonious model is retained.

The theoretical model was estimated using SPSS 27. For hypotheses 1 and 2, a multiple regression model was estimated. The mediating and moderating hypotheses were tested using the PROCESS macro (Version 4; Hayes, 2017) with an ordinary least squares estimator. Each of the hypothesized mediation or moderated mediation paths between the independent variables (pull and push factors) and job satisfaction were estimated separately (for a full set of hypothesized paths tested, see Figure 1). Because the model had two independent variables with three mediation/moderated mediation paths, three regression models were estimated and a Bonferroni correction ($\alpha = .05/3 = .017$) was made such that 98.3% confidence intervals were estimated for hypothesis testing. The 10 control variables described above were included in all models.

I begin by describing the simplest of the three models—the model in which controlled motivation was hypothesized to mediate the relationship between push factors and job satisfaction (Hypothesis 4a). This simple mediation hypothesis was estimated using PROCESS Model 4, which includes pull factors (X) and job satisfaction (Y), controlled motivation (M), and the 10 control variables as covariates. Because the theoretical model included both push and pull factors as independent variables, I also entered pull factor scores as a covariate in the model (Hayes, 2017). This model tests the effect of push (X) factors on job satisfaction (Y) by isolating the indirect effect from the direct effects through the mediation of controlled motivation (M), after controlling the effects of the covariates in the model.

In addition to the simple mediation model described above, I also tested two separate models of moderated mediation, in which perceived organizational and supervisor support moderated the relationship between pull factors and autonomous motivation (Hypothesis 3) and the relationship between push factors and autonomous motivation (Hypothesis 4b) within the mediational model predicting job satisfaction. Moderated mediation hypotheses were analyzed utilizing PROCESS Model 9, which includes one independent variable (X), one dependent variable (Y), a mediator (M), up to two moderators (W and Z), and multiple covariates (i.e., control variables). Just as with PROCESS Model 4, the independent variable not identified as X in the model was entered as a covariate. PROCESS Model 9 tested the effect of pull (X1) and push (X2) factors on job satisfaction (Y) by isolating the indirect effects from the direct effects through the mediation of autonomous motivation (M) as influenced by the level of perceived supervisor (W) and organizational (Z) support. For each of the three

mediation/moderated mediation models estimated, the control variables for gender, age, race, institution, education level, years of experience at the university, and whether the instructor adjuncts at multiple institutions, teaches graduate students, teaches only online and has adjuncting as the primary source of income were included as covariates in the model. To test for mediation, indirect effects and their associated 98.3% confidence intervals were estimated using bias-correcting bootstrapping sampling with 5000 samples (MacKinnon et al., 2002; MacKinnon et al., 2004; Preacher & Hayes, 2008). Point estimates of the indirect effects with confidence intervals that do not include zero were judged as significantly different than zero, which suggests that the relevant type of motivation mediates the relationship between the associated pull/push factor and job satisfaction. In the output of PROCESS Model 9, the index of moderated mediation was a parameter, with a point estimate and a 98.3% confidence interval that measured whether the indirect effects between X1 or X2 and Y were moderated by W or Z. Confidence intervals not containing zero indicated statistical significance and support a hypothesis of moderating mediation (Hayes, 2015). Finally, indirect effect sizes (κ^2) were calculated for each of the mediating relationships (Preacher & Kelley, 2011). Preacher and Kelley suggest that κ^2 can be interpreted using the effect size guidelines (.1 = small, .3 = medium and .5 = large) as identified by Cohen (1988).

CHAPTER 4: RESULTS

The descriptive statistics and correlations of model variables are reported in Table 2. Additionally, reliabilities (Cronbach's alpha) are calculated for each of the scales and are reported on the diagonal in Table 2. Of particular interest, the correlation between pull factors and job satisfaction was positive and significant ($r = .22, p < .01$) and the correlation between push factors and job satisfaction was negative and significant ($r = -.20, p < .01$). These relationships are critical to this study because the mediation hypotheses depend on pull and push factors being related to job satisfaction. All scales showed good reliability with an alpha greater than .80 except the scale for pull factors ($\alpha = .65$). When the first item on the pull factor scale was dropped, the alpha for pull factors increases to $\alpha = .73$. Based on this result, I tested whether dropping this item improved the overall fit of measurement scales. I conducted this test by proposing an additional CFA model that dropped the item and checking whether model fit was significantly improved.

Confirmatory Factor Analysis

The seven measurement scales (pull and push factors, autonomous and controlled motivation, perceived supervisor and organizational support and job satisfaction) were jointly tested for dimensionality through a series of CFA models (see Table 3). For each model, the CFI, Δ CFI as models become more complex, as well as root mean squared error of approximation (RMSEA) and associated 90% confidence interval, and the standardized root mean residual (SRMR) are reported in Table 3. Drawing from Cheung and Rensvold (2002), when Δ CFI $\geq .01$, the more complex model estimated was chosen as the model better fitting the data. The incremental inclusion of additional factors from

Model 1 (1-factor model) to Model 7 (7-factor model) consistently produces Δ CFI values from one model to the next that are larger than .01, showing each more complex model fits the data better than each prior, more parsimonious model. Thus, the 7-factor model, which is the model in which all seven scales (pull factors, push factors, autonomous motivation, controlled motivation, perceived organizational support, perceived supervisor support, and job satisfaction) make up separate factors, fit the data best. As such, each of the seven measurement scales represents a separate construct. A review of standardized loadings showed that the first item on the pull factor scale loads much lower (.18 versus .56 to .76) than the other scale items. The other noticeable differences in loadings can be explained as related to the items being reverse scored. When the first pull factor item was dropped, the change in fit (Δ CFI = .005) was not sufficient to support dropping the item and hypothesis testing was conducted using all five pull factor items.

Hypothesis Testing

Hypothesis 1 and 2 relate to the reasons why instructors choose adjunct roles. Specifically, hypothesis 1 proposes that a larger presence of pull factors corresponds to higher levels of job satisfaction, while hypothesis 2 proposes that a higher presence of push factors corresponds to lower levels of job satisfaction. Regression results are reported in Table 4. Pull factors were significantly related to job satisfaction, with the positive regression coefficient indicating that adjunct instructors reporting higher levels of pull factors also report greater job satisfaction. Hypothesis 1 is supported. Push factors were significantly related to job satisfaction, with the negative regression coefficient indicating that adjunct instructors reporting higher levels of push factors report lower levels of job satisfaction. Hypothesis 2 is supported.

Hypothesis 3 suggests that the positive relationship between pull factors and job satisfaction is fully mediated by the autonomous motivation of adjunct instructors. To address this hypothesis, I begin by presenting regression results in which autonomous motivation is regressed on pull/push factor scores, POS and PSS scores, pull/push factor x POS/PSS interaction terms, and control variable main effects (see Table 5). Pull factor scores were included as the independent variable of interest in hypothesis 3 and POS and PSS scores and interaction terms were included for testing hypothesis 5. The results of hypothesis 5 are discussed later, but were included in this model for parsimony.

The effect of pull factors on autonomous motivation was statistically significant (see Table 5), with results indicating that adjunct instructors reporting higher pull factor scores also report greater autonomous motivation. The mode of course delivery was the only covariate significantly related to autonomous motivation scores. The negative regression coefficient indicating that adjunct instructors teaching only online courses reported significantly less autonomous motivation than adjunct instructors teaching partially or fully in-person courses.

Next, I regressed job satisfaction scores on all main effects used in the prior model predicting autonomous motivation scores, and I added autonomous motivation scores as the mediating variable. The regression coefficient for autonomous motivation was statistically significant (see Table 5). This result indicates that adjunct instructors reporting higher levels of autonomous motivation also report greater job satisfaction. The previously significant main effect for pull factor scores on job satisfaction, supporting hypothesis 1, was not significant in this model including autonomous motivation,

perceived organizational and supervisor support, and interaction terms. However, this does not necessarily indicate the presence of mediation.

To test whether autonomous motivation mediated the pull factor-job satisfaction relationship, bias-correcting bootstrapping (5000 iterations) was used to separate out the direct and indirect effects. Because three regressions were estimated to test model relationships, a Bonferroni correction was made to estimate 98.3% confidence intervals for testing hypotheses. The direct effect of pull factors scores on job satisfaction was not statistically significant, ($c = 0.05$, 98.3% CI = [-0.22, 0.32]). However, the estimated 98.3% confidence interval of the indirect effect of pull factors on job satisfaction through autonomous motivation ($c' = 0.33$, 98.3% CI = [0.15, 0.55]) was statistically significant and positive. This indirect effect was estimated when the moderating variables, POS and PSS were held constant at their mean. However, the statistical significance of this indirect effect was also robust across all combinations of levels of POS and PSS moderators ranging from +1SD and -1SD from their mean. Of practical significance, the estimated indirect effect size for autonomous motivation was moderately large ($\kappa^2 = .19$), showing that autonomous motivation has a medium-to-large mediating effect on the relationship between pull factors and job satisfaction. Because the indirect effect confidence intervals do not contain zero, and the direct effect confidence intervals do contain zero, results suggest that autonomous motivation fully mediates the relationship between pull factors and job satisfaction. Hypothesis 3 is supported.

Hypothesis 4a suggests that the positive relationship between push factors and job satisfaction is fully mediated by the controlled motivation of adjunct instructors. To address this hypothesis, I begin by presenting regression results in which controlled

motivation was regressed on pull/push factor scores and control variable main effects (see Table 6). Push factor scores were included as the independent variable; however, there were no POS scores, PSS scores or interaction terms included as these were not hypothesized to moderate the effect of push factor scores on controlled motivation. There were no regression coefficients that were significant at $\alpha = .017$. This indicates that push factor scores are not significantly related to controlled motivation.

Next, I regressed job satisfaction scores on all predictors used in the prior model predicting controlled motivation scores, and I added controlled motivation scores as the mediating variable (see Table 6). Consistent with previously presented results supporting hypotheses 1 and 2, the main effects of pull and push factor scores on job satisfaction remained statistically significant after adding controlled motivation to the original model. No other effects, including the main effect of controlled motivation, were statistically significant in the model shown in Table 6 predicting job satisfaction.

To test whether controlled motivation mediated the push factor-job satisfaction relationship, bias-correcting bootstrapping (5000 iterations) was again used to separate out the direct and indirect effects. The direct effect of push factor scores on job satisfaction was significant ($c = -0.21$, 98.3% CI = [-0.39, -0.04]), but the indirect effect of push factor scores on job satisfaction was not significant ($c' = 0.00$, 98.3% CI = [-0.03, 0.04]). Additionally, the estimated indirect effect size for controlled motivation was negligible ($\kappa^2 < .01$) as a mediator of push factors scores and job satisfaction. These results indicate that the inverse relationship between push factor scores and job satisfaction is not explained through the inclusion of controlled motivation scores. As

such, controlled motivation does not have a role in mediating the relationship between push factor scores and job satisfaction. Hypothesis 4a is not supported.

Hypothesis 4b suggests that the negative relationship between push factors and job satisfaction is fully mediated by the autonomous motivation of adjunct instructors. To address this hypothesis, I begin by presenting regression results in which autonomous motivation is regressed on pull/push factor scores, POS and PSS scores, pull/push factor x POS/PSS interaction terms, and control variable main effects (see Table 7). Push factor scores were included as the independent variable and POS and PSS scores and associated interaction terms are included for testing hypothesis 6. The results of hypothesis 6 are discussed later, but were included in this model for parsimony.

The effect of push factors on autonomous motivation was not statistically significant (see Table 7). As shown in the discussion of hypothesis 3, the mode of course delivery was significantly related to autonomous motivation. The negative regression coefficient indicated that adjunct instructors teaching only online courses reported significantly less autonomous motivation than adjunct instructors teaching partially or fully in-person courses.

Next, I regressed job satisfaction scores on all predictors used in the prior model predicting autonomous motivation scores, and I added autonomous motivation scores as the mediating variable (see Table 7). As shown when testing hypothesis 3, the effect of autonomous motivation scores on job satisfaction scores was significant. The positive relationship indicated adjunct instructors reporting higher levels of autonomous motivation also reported greater job satisfaction. No other effects in the model shown in Table 7 predicting job satisfaction scores were statistically significant.

To test whether autonomous motivation mediated the push factor-job satisfaction relationship, bias-correcting bootstrapping (5000 iterations) was again used to separate out the direct and indirect effects. The direct effect of push factor scores on job satisfaction was not significant ($c = -0.15$, 98.3% CI = [-0.31, 0.00]). Additionally, the estimated 98.3% confidence interval of the indirect effect of push factors on job satisfaction through autonomous motivation ($c' = -0.04$, 98.3% CI = [-0.12, 0.03]) was not statistically significant. This indirect effect was estimated when the moderating variables, POS and PSS were held constant at their mean. The statistical non-significance of this indirect effect was also shown across all combinations of levels of POS and PSS moderators ranging from +1SD and -1SD from their mean. The practical significance of the estimated indirect effect size for autonomous motivation was also very small ($\kappa^2 = .04$). These results indicate that there is neither a direct effect of push factor scores on job satisfaction nor an indirect effect via autonomous motivation as a mediator. Hypothesis 4b is not supported.

Hypotheses 5 proposes that perceived supervisor and organizational support moderate the relationship between pull factor and autonomous motivation scores. Practically, this hypothesis suggests that higher levels of perceived support experienced by adjunct instructors will strengthen the positive relationship expected between pull factor scores and autonomous motivation. Conversely, lower levels of perceived support should result in a weaker relationship between pull factor scores and autonomous motivation. Regression results are shown in Table 5. Given that the results in Table 5 have already been discussed with regard to testing hypothesis 3, I will focus only on interpreting the results regarding the interaction terms relevant to hypothesis 5. Results in

Table 5 show neither interaction term, between pull factor and POS scores nor pull factor and PSS scores, were significantly related to autonomous motivation scores. These results fail to support hypothesis 5. Moreover, the 98.3% confidence intervals for the index of moderated mediation for POS [-0.10, 0.12] and PSS [-0.15, 0.10] contain zero, further suggesting the absence of moderated mediation effects.

Hypothesis 6 suggests that perceived supervisor and organizational support moderate the relationship between push factor and autonomous motivation scores. The hypothesis proposes that higher levels of perceived support will weaken the expected negative relationship between push factor and autonomous motivation scores. Regression results are shown on Table 7. Again, because the results in Table 7 have already been discussed with regard to testing hypothesis 4b, I will focus only on interpreting the results regarding the interaction terms relevant to hypothesis 6. Results in Table 7 show the interaction effects related to hypothesis 6 (i.e., between push factor and POS scores and push factor and PSS scores), were also non-significant. These results fail to support hypothesis 6. Moreover, the 98.3% confidence intervals for the index of moderated mediation for POS [-0.03, 0.07] and PSS [-0.08, 0.05] contain zero, further suggesting the absence of moderated mediation effects.

In summary, the data support some of the model relationships but not others (see Table 8). First, there was support for hypotheses 1 and 3, indicating that there is a positive and significant relationship between push factor scores and job satisfaction and that relationship is fully mediated via autonomous motivation. Second, hypothesis 2 was supported, but hypotheses 4a/b were not. This indicates that while there was a negative and significant relationship between push factor and job satisfaction scores, the

relationship was not explained through either autonomous or controlled motivation. Finally, findings failed to support hypotheses 5 and 6, indicating that perceived supervisor and organization support did not influence the strength of the relationship between either pull or push factors and autonomous motivation.

CHAPTER 5: DISCUSSION

In recent decades, there has been an increase in the number of workers in the U.S. pursuing their livelihoods through alternative work arrangements. More recently, COVID-19 has accelerated the shift of the workforce into alternative work arrangements. Employers are finding these alternative arrangements advantageous because of the flexibility and cost savings that they offer. Some workers are entering these alternative arrangements voluntarily as they offer autonomy, flexibility and the ability to pursue personally interesting work (pull factors), while others are choosing this work as coping strategies until they can secure work in a preferred career track or in a standard employment relationship (push factors). This study focused on independent contractors, the largest subpopulation of workers in alternative work arrangements. It explored the relationship between the reasons why an individual chooses independent contracting work and job satisfaction. Drawing upon OIT, the proposed theoretical model posited that individuals voluntarily entering contracting work as reflected by higher levels of pull factors would experience greater job satisfaction. This positive relationship should be explained by the level of autonomous motivation contractors experienced because they find their work more personally interesting or meaningful. Similarly, contractors entering these work arrangements with higher levels of push factors should show lower levels of job satisfaction. The model proposed that this relationship should be explained by the perception that the work is externally driven (higher controlled motivation) and is a less meaningful option for work (lower autonomous motivation). Finally, the proposed model suggested that organizational leadership as experienced through the perceived support from a supervisor or the organization can positively influence how contractors view the

work as personally interesting and something they want to pursue. This model was tested by sampling from populations of adjunct instructors, one type of independent contracting, at two universities.

Study results suggest the following insights. First, pull factors were significantly, positively related to job satisfaction. Second, this pull factor-job satisfaction relationship was fully mediated by autonomous motivation, with an effect size that is medium-to-large. These findings are consistent with theory. Pull factors describe a set of personally interesting reasons why individuals may choose to enter contract work (McKeown, 2005). These reasons can include such things as work characteristics that a contractor may find personally interesting or meaningful, and the personal autonomy to set their own schedule and decide which work to accept or turn down. These expectations of the work being preferable exist prior to the contractor's decision to accept a particular role. Once contractors are in the work role, OIT suggests that contractors performing work that is actually personally meaningful and interesting will exhibit higher levels of autonomous motivation and through the positive experience of the work will have greater levels of job satisfaction (Deci & Ryan, 2000; Ryan & Deci, 2017).

Third, the results showed that there was a significant and inverse relationship between the level of push factors and job satisfaction. This significant main effect successfully replicated existing studies that have shown that push factors are inversely related to positive work outcomes in general (e.g. Keith et al., 2019; Shevchuk et al., 2018) and job satisfaction specifically (Feldman & Bolino, 2000). In this study, push factors constitute a set of reasons regarding the decision to adjunct, reflecting such things as an inability to secure standard employment, recent job loss, or as an alternative way to

progress in their preferred career (McKeown, 2005). In these ways, pull factors can be seen as ways to alleviate roadblocks in one's career path or meet the immediate, personal needs for income. Under OIT, work outcomes such as job satisfaction arise from the personally meaningful and interesting work (Deci & Ryan, 2000; Ryan & Deci, 2017). Because push factors represent less than ideal reasons for entering contracting work, it should not be surprising that the contract work would be perceived as less enjoyable and that the observed high push factor scores would be related to lower job satisfaction.

While this study showed a negative relationship between push factor and job satisfaction scores, it did not show that controlled and autonomous motivation to mediate this relationship. As previously described, controlled motivation arises from the perception that one's actions are externally regulated (Ryan & Deci, 2017). Based on this definition, the implication of hypothesis 4a, that controlled motivation mediates the relationship between push factor and job satisfaction scores, is that the completion of contract work is driven by the contract organization (or another external party) rather than by contractors themselves. Contract work, however, is inherently structured around contractors acting autonomously. The higher levels of administrative separateness in contracting means that the organization is not positioned to micromanage the contractor, rather contractors may still need to act autonomously to complete their work regardless of why they chose it. Additionally, while I have discussed push factors representing reasons that individuals may involuntarily choose contract work, it may be that the decision to accept the work is in essence voluntary and at minimum, a small expression of personal autonomy (Deci et al., 2017). In these ways, the structure of the work and the process of accepting the work may build in a sufficient level of autonomy such that contractors,

regardless of their level of push factor scores, may not have a strong perception that their work is externally driven. This perception that the work was more autonomously driven was highlighted in a large difference between the mean scores of autonomous ($M = 5.84$) and controlled ($M = 3.14$) motivation. As such, controlled motivation may be a less relevant form of motivation in the analysis of contractor motivation.

While the structure and process of contract work may have dampened the relationship between push factor and controlled motivation scores, study results also showed that there was not a relationship between controlled motivation and job satisfaction. As discussed previously, higher levels of job satisfaction arise from the positive experience of pursuing meaningful or interesting work (Ryan & Deci, 2017). In this way, job satisfaction is less about the level of personal autonomy experienced in the work and more about how the work being completed relates to the meaning the contractor ascribes to it (autonomous motivation). Autonomous motivation, however, also failed to explain the inverse relationship between push factor and job satisfaction scores. As described previously, under OIT autonomous motivation arises from the ability to complete work that is personally meaningful and interesting. In this way, suggesting autonomous motivation as a mediator insinuated that when push factor scores are higher, autonomous motivation will be lower because the contractor is completing work that is less than their ideal. Whereas controlled motivation attempts to capture the influence of who is driving the work, autonomous motivation considers the impact of the work on the experience of the contractor. While contractors reporting higher levels of push factors may prefer the particular work less, there may be certain aspects of the work that do align with what they find meaningful or interesting. In this way, there can be aspects of the

work that autonomously motivate contractors that offset those aspects that demotivate (Deci et al., 2017). Thus, there may have been some contractors with higher levels of push factors who experienced sufficient autonomy and some who did not, which could have led to non-significant mediation effects of autonomous motivation on the relationship between push factor and job satisfaction scores.

The actions and experiences of those pushed into contracting work, however, may be related more to the nature of contract work rather than worker psychology. Because of the temporary nature of contract work and the administrative separateness of contractors, the best opportunity for contractors higher on push factor scores to increase their job satisfaction may be to move on to different work. For the organization, the best way to increase the motivation of a contractor completing a work task may actually be to find a new contractor with higher levels of pull factors.

Those reporting higher levels of push factors did not find the work arrangement preferable. As such, they have more incentive to actively seek out alternative work opportunities even if they do not have the current ability to actually make the change. Additionally, because contract work is time bound without long-term commitments, there are more opportunities for those with higher levels of push factors to depart the organization early in the contracting relationship. McKeown and Hanley (2009) showed this dynamic; those pushed into contracting work reported they were more likely to leave contracting work within the first three years, while those pulled into contracting work were less likely to leave over the same time period. As such, as those pushed into contracting separate much earlier from the contracting organization than those pulled into contract work. This, along with the relatively high mean years of adjunct experience, high

mean pull factor score, and low mean push factor score observed in this study, may suggest that the adjunct populations within universities tend to be overrepresented by those pulled into the work. This may have negatively affected the statistical power needed to sufficiently test the effects of push factors in this study. Future research may consider samples cohorts of first-time adjuncts, wherein there may be a greater balance between those pulled and those pushed in an adjunct role.

Finally, perceived supervisor and organizational support did not moderate the effect of adjunct instructors' reported levels of being pulled/pushed into adjunct work on their sense of autonomous motivation on-the-job. The consistent lack of support for moderating hypotheses suggests that organizational leadership, as represented through perceived supervisor and organizational support, does not impact contractor autonomous motivation. The lack of support for the moderating hypotheses, however, does not mean that contractors thought that leadership through perceived support was not present. POS and PSS had high overall mean scores and had small but significant positive correlations with pull factor scores while POS had a small but significant negative correlation with push factor scores. POS and PSS had significant small-to-moderate correlations with autonomous motivation and significant and moderate correlations with job satisfaction. In this way, POS and PSS scores were positively related to positively oriented variables (pull factors, autonomous motivation and job satisfaction), and POS scores were negatively related to one negatively oriented variable (push factors). These observations suggest that the perspective by which contractors approach their work may influence the perceptions of support.

This highlights an important point about contractor work—it inherently tends to be associated with relatively high autonomy and relatively low support. Organizations' decisions to contract out work is based on this very tradeoff. Contractors showing higher levels of pull factors are entering the work because they believe it will be interesting and personally meaningful. Contractors pulled into contract work are likely to be drawn to the autonomy inherent in contract work. As such, these contractors enter the work with a lower need for support to find the work meaningful or interesting once they are in the role. While contractors identified positive levels of support in their work, the lower need for support means it matters much less to their perceptions of autonomous motivation.

Contractors showing higher levels of push factors are entering the work for reasons other than it being meaningful and interesting. However, while there may not be any currently available employment options that the individual perceives to be meaningful or interesting, it is likely that contract work is not the only employment opportunity that individuals could be pushed into. The choice to pursue contract work among the available options may also suggest that, while not being perceived as meaningful or interesting, contract work may be more desirable than other available options due to the autonomy it provides. Thus, even those pushed into contract work may have a relatively low need for support. One could argue that in academia, which is known for providing autonomy, those pursuing either traditional employment or contract work have a relatively high need for autonomy. Those who may desire traditional employment in academia, but have been pushed into adjuncting until a traditional employment opportunity comes available, have a high need for autonomy and low need for support.

The lack of influence of POS and PSS on the relationship between pull/push factors and autonomous motivation may suggest that contractors do not find traditional leadership forms valuable. As such, contract work may not be amenable to traditional organizational leadership behaviors (POS and PSS). Contracting arrangements are structured to provide individuals the autonomy to complete specific tasks with minimal control or oversight from the organization. This naturally draws in individuals who have preferences for autonomy. They may choose contracting as a preferred option (higher levels of pull factors) or as preference over other undesirable standard work arrangements (higher levels of push factors). The autonomy inherent to contracting work and expected by contractors suggests that, in contracting, leadership does not come from hierarchical leader-follower relationships. Rather, any potential leadership interventions would likely need occur through building the contractor's ability to self-influence. This could potentially occur through substitutes for leadership (Kerr & Jermier, 1978), including self-leadership (Manz, 1986; Manz & Sims 1980).

Theoretical Implications

Based on this study, there are several theoretical implications. First, this study successfully suggested an additional set of antecedents for autonomous and controlled motivation. At the worker level, SDT research has focused on causality orientations as antecedents (Deci & Ryan, 1985b, 2000). Causality orientations are essentially dispositional characteristics that influence worker's preferences towards pursuing and evaluating the satisfaction of those needs. To understand the influence of work characteristics on motivation, one set of antecedents have been integrated from job demands-resources theory (e.g. De Cooman et al., 2013). A second set of worker level

antecedents has focused on worker goal motives describing what workers are more intrinsically drawn to do and value (e.g. Sheldon & Elliot, 1998; Sheldon & Krieger, 2007; Sheldon & Krieger, 2014; Sheldon et al., 2004). The use of pull and push factors as antecedents is advantageous as they are more proximal to the decision to accept contractual work and more contextualized than are the causality orientations and goal motives. Furthermore, pull and push factors could be useful to include alongside work characteristics as antecedents because they contain contractor preferences toward these general work characteristics.

Second, this study provides insights into the nature of the relationship between the reasons why individuals enter contract work arrangements and job satisfaction. Results showed the importance of autonomous motivation as a mediator of pull factor scores and job satisfaction. As described previously, autonomous motivation arises from the ability of contractors to complete work that is personally meaningful and interesting. Results regarding the mediating role of autonomous motivation suggest that contractors being pulled into contract work do not directly have higher levels of job satisfaction, once on the job. Rather, stronger perceptions of being pulled into contract work directly influences perceptions of autonomous motivation, once on the job, which, in turn, directly affects one's job satisfaction. This role of autonomous motivation adds insight into existing research identifying a positive relationship between pull-type factors and job satisfaction in alternative work arrangements (e.g. Keith et al., 2019; Shevchuk et al., 2018).

The non-significance of controlled and autonomous motivation as mediators of the relationship between push factors and job satisfaction suggest that those pushed into

contract work behave and make decisions differently than what is suggested in standard employment theory. As described above, push factors are reasons that individuals enter contracting work because of an inability to secure preferred work, as an alternative way to progress in their career path or due to recent job loss. Results also indicated that contractors pushed into contract work separate from the contracting organization when they have the mobility to accept more desirable opportunities. This is not necessarily different than for similar individuals in a standard employment relationship, but there are important differences. Because contract work is time bound and the contractor is not administratively bound to the organization, contractors have more flexibility in separating from the organization at the end of each contract. For adjunct instructors, this may mean that they find a different class to teach or a different university to teach at. It may also mean that they find a standard employment arrangement, like a full-time teaching position, that is more meaningful or interesting. For standard, full-time employees with higher levels of push-type factors, they may persist in their work even when they have perceived high levels of controlled motivation and lesser job satisfaction. There may be additional factors beyond a new opportunity being meaningful or interesting, such as the level of compensation and benefits, that could also be important to their decision to leave their position. Because full-time employees rely on their work for their livelihood, there are more rigidities in changing their job as there are more factors involved than work being meaningful and interesting. Because of the flexibilities inherent in contracting work, constructs such as controlled motivation and job satisfaction are less relevant for contractors being pushed into contract work.

Third, this study responds to multiple calls to understand how existing workplace theories and constructs apply in alternative work arrangements. For example, recent research into alternative work arrangements has called for additional research on how worker distinctives (i.e., reasons for choosing nonstandard work) impact worker success (Ashford et al., 2018) and on whether the same work-related constructs matter (Brawley & Pury, 2016). One such difference identified in this study is that the role of leadership in contracting arrangements differs from the role of leadership in standard organizational employment. While adjunct instructors identified the presence (or lack thereof) of leadership behaviors through POS and PSS, these leadership behaviors did not impact the relationship between either pull or push factors and autonomous motivation. These results suggested that relaxing control over contractors compared to regular employees may also mean the organization is giving up the ability to influence contractors through supportive behaviors. The autonomy of contracting work inhibits the impacts of leadership on contractors. Those entering contract work with higher levels of pull factor scores choose the work because it is potentially meaningful or interesting and allows them to act autonomously. Their low need for leadership support means that higher levels of perceived support does not impact contractor autonomous motivation. Similarly, contractors pushed into contract work are choosing a second-best work option with more autonomy. Whereas leadership in standard employment relationships would attempt to support these employees, contractors persist in their work until a more desirable work is secured. For those who do not value autonomy and need support, they likely leave adjuncting and other types of contract work as soon as they have the mobility to do so. As such, when there is sufficient mobility, contractors pulled into contract work separate

from the contracting organization rather than seeking leadership support. For contractors entering with high levels of both pull and push factors, the autonomy of contracting work limits the impact of leadership support the experience of contractors in their work.

Practical Implications

The first practical implication is that organizations should be searching for contractors who view the work on offer as more desirable. Study results showed that the positive relationship between pull factor and job satisfaction scores was mediated by the personal meaning from performing the work (autonomous motivation). This result indicates that the expectation of meaningfulness prior to accepting the work was recognized once being in the work role. This indicates a level of congruence between contractor preferences and the actual work. Person-job fit is one form of fit in organizations and a primary mode of assessing the degree of match between the attributes of the person and the expected job role (Kristof-Brown et al., 2005). When person-job fit occurs it has positive impacts on work outcomes, with meta analytic results showing relatively large effects of person-job fit on job satisfaction (Kristof-Brown et al., 2005). The implication of person-job fit is that before engaging the contracting process, the organization needs to identify the specific pull factors relevant to the contract work. When considering the motivation and job satisfaction of contractors, the contracting process becomes one of recruiting and identifying and selecting contractors who score highly on the list of relevant pull factors. Additionally, contracting organizations should also identify contextually appropriate push factors that can serve to predict which contractors could end up with lower levels of job satisfaction and separate more quickly from the organization.

The second practical implication of the results is that when working with independent contractors, organizations need to look beyond traditional leadership behaviors. While study results failed to make specific recommendations for what leadership may be effectual, the contract work and its inherent autonomy suggest non-hierarchical forms of leadership. Substitutes for leadership theory suggests that contextual factors (subordinate, task and organization) may serve as the primary influence on subordinates (Kerr & Jermier, 1978). Depending on the context, substitutes for leadership can neutralize or enhance the influence of the leader or provide influence in the absence of formal leadership. In the case of independent contracting, relevant substitutes would likely be focused on task-based factors, including task feedback, routine tasks and intrinsically satisfying tasks (Podsakoff et al., 1996). As a particular substitute for leadership, self-leadership may provide contractors with capacities for self-influence (Manz, 1986; Manz & Sims 1980). Self-leadership develops workers reflective capacities in self-evaluation and self-correction as a means towards self-influence. Self-leadership has been shown to be positively related to work outcomes, such as job satisfaction (e.g. Marques-Quinteiro et al., 2019; Müller & Niessen, 2019). For contractors experiencing a deficit of support from their supervisor or organization in their work due to the autonomous nature of contract work, self-leadership could provide a set of personal competencies in being self-supporting. While these potential leadership interventions are untested in this study, the inability of hierarchical and relationship-based leadership to influence contract workers suggests that substitutes for leadership and self-leadership may be plausible and effective alternatives.

Limitations and Future Research

In this study, there are several limitations that have implications for future research. The first limitation may be that a population of adjunct instructors may not fully represent the broader population of independent contractors. In general, teaching at the university level involves a higher degree of autonomy, whether an instructor is full-time tenured or adjunct. Because there are higher expectations of autonomy, it is not surprising that the sample of adjunct instructors in this study was much more strongly oriented towards those who reported higher levels of pull factors while fewer reported higher levels of push factors. When applying these results to other types of independent contracting (e.g., travel nurses, IT contractors, web designers, etc.), the question is whether autonomy is as inherent in their work as it is for adjunct instructors. This could mean, for example, that contractors who are pushed into contracting work, will be more persistent in their work when experiencing higher levels of controlled motivation. For example, an Uber driver may feel compelled to accept a number of rides to earn fares that are mediocre for the opportunity to give one or two rides with a rewarding fare level. As such, when applying the results from this study to a different population of contract workers, the underlying characteristics (e.g., autonomy, contractor skill level, etc.) of the particular type of contract work should be considered.

A second limitation is that data from a representative, cross-sectional sample of adjunct instructors may not answer all research questions equally well. In this study, a representative sample of adjunct instructors showed that the population of adjunct instructors is skewed towards those with higher levels of pull factors. The results from this study, in turn, are descriptive of the dynamics experienced within this population.

There are other questions, however, that this data does not answer as well. For example, the long average tenure of instructors observed in this study means that in their work and repeated contract renewal, they would have had the opportunity to clarify their work expectations. Many years into the contracting relationship, expectations may now represent the reality of the position and there may be less need for support. Thus, even if support is recognized, the lower need for it means that the support does not impact the autonomous motivation of the instructor. As such, the cross-sectional design of this study, which samples many years into the work relationship, may have overlooked that perceived supervisor or organizational support may have been impactful earlier in the contracting relationship. Future research should address the question of whether perceived support impacts contract workers' autonomous motivation early on in their contract tenure and whether that effect decays over time. To address this specific set of research questions, the research should consider studying adjunct instructors during their initial contracts with the university. This should improve the balance between instructors pulled and pushed into adjuncting and capture the potential impact of supervisor and organizational support when there is a greater opportunity for uncertainties or unexpected events to occur. In general, future research on contractors should ensure that the correct sampling frame is constructed for the associated research questions. If the study wants to understand general population dynamics of a set of contractors, then a representative sample would be appropriate. However, if research questions want to test specific model relationships, then a sampling frame should be constructed to draw in a sufficient level of variability for the constructs under consideration.

Third, future research should further explore the influence of autonomy on decisions to become a contractor and on contractor experiences while doing the work. In this study, the autonomy inherent in adjunct instructing was an important work characteristic in explaining why autonomous motivation mediated the relationship between pull factor and job satisfaction scores. In contract work, autonomy also provides an explanation of why autonomous or controlled motivation did not mediate the inverse relationship between push factor and job satisfaction scores. Future research on the influence of autonomy in independent contracting could drill deeper into why those pulled into contracting have a positive experience and shed light on the reasons why those pushed into contracting may more readily depart the contracting organization. Existing SDT research suggests several ways that autonomy could be considered. Future research could consider the impact of causal orientations, specifically the orientation towards autonomy (Deci et al., 2017; Deci & Ryan, 1985b, 2000; Ryan & Deci, 2017). The autonomy orientation describes the level of orientation of workers to make choices to pursue their own interests and values. As an antecedent to the decision to accept contracting work, the autonomy causal orientation may explain whether contractors choose the work because of a preference for autonomy. Future research could also consider whether pull and push factor scores covary with the level of autonomy or whether those pushed into contract work have a stronger preference for autonomy compared to a sample of those pulled into standard employment.

Another future research direction could include the satisfaction of basic psychological needs as an antecedent of autonomous motivation. Deci and Ryan (2000) define basic psychological needs as “specific innate psychological nutriment that are

essential for ongoing psychological growth, integrity, and well-being” (p. 229). In SDT, there are three basic psychological needs: autonomy, competence and relatedness. The simultaneous satisfaction of all three of these basic psychological needs is necessary for higher levels of motivation and psychological health. For contractors, the satisfaction of basic psychological needs may provide specific insights into why those pulled into contract work have higher autonomous motivation and job satisfaction. The inclusion of basic psychological needs could help address research questions of whether it is the autonomy inherent in contract work or the ability to complete well defined tasks (or both) that have more influence on contractor motivation. In these ways, the inclusion of causal orientations and basic psychological needs could give a more detailed understanding of autonomy in contracting work.

Finally, future research needs to consider alternative models of leadership that may impact the experiences of contractors. This study showed that the perceived support received by contractors did not impact the magnitude of the relationship between their level of pull/push factor and autonomous motivation scores. As previously discussed, one implication of this study’s results is that the autonomy given by the organization and experienced by the contractor creates a distance that makes the support ineffective in influencing the contractor. Self-leadership provides a set of personal competencies for contractors to self-influence. Specifically, self-leadership research has included developing positive thought patterns, proactive reflection skills to assist in changing one’s behavior and an ability to build natural rewards into the work (Houghton & Neck, 2002; Manz, 1986). Self-leadership has been applied to work roles, like entrepreneurship, that require higher degrees of autonomy and intrinsic motivation (e.g. Bendell et al.,

2019; D'Intino et al., 2007) and in contexts with higher uncertainty that require adaptability (e.g. Marques-Quinteiro et al., 2019). Future research could consider whether self-leadership is more prominent among contractors than traditional employees. Specific to contracting, future research could also explore how self-leadership guides decisions to accept contract work and how different modes of self-influence may provide support for contractors in their work.

Conclusion

This study illuminated how the reasons for entering independent contracting work arrangements influenced contractor autonomous and controlled motivation and ultimately their job satisfaction. This study also proposed that perceived supervisor and organizational support moderate a positive (inverse) relationship between pull (push) factors. Based on a sample of $N = 241$ adjunct instructors from two universities, I found that the positive relationship between pull factors and job satisfaction was fully mediated by the level of autonomous motivation experienced. While push factors were inversely related to job satisfaction, the relationship was not mediated by either controlled motivation or autonomous motivation. Finally, the level of perceived supervisor and organizational support the experienced by contractors did not influence their level of autonomous motivation, regardless of the reasons why the work was chosen. This study adds to alternative work arrangement research through the development of a measurement scale for pull and push factors in the context of adjunct instructing. This study also extends previous research by adding a new set of antecedents to motivation in SDT research and provides an explanation for the relationship between pull factors and job satisfaction. Specifically, the results of the study showed that autonomous motivation

mediates the positive relationship between pull factor and job satisfaction scores. This result highlights the importance of recruiting and selecting contractors who find the associated contract work personally interesting and meaningful. While results showed that higher levels of push factor scores were related to lower levels of job satisfaction, neither autonomous nor controlled motivation explained this relationship. As such, the relationship between push factor and job satisfaction scores is more complex than what could be explained through personal motivation; rather, it may be influenced by the characteristics of contracting arrangements. Finally, this study highlighted that leadership support may not be valued by contractors the same way that it is in standard employment relationships. As such, future research needs to explore alternative methods of leadership to influence the experience of contractors.

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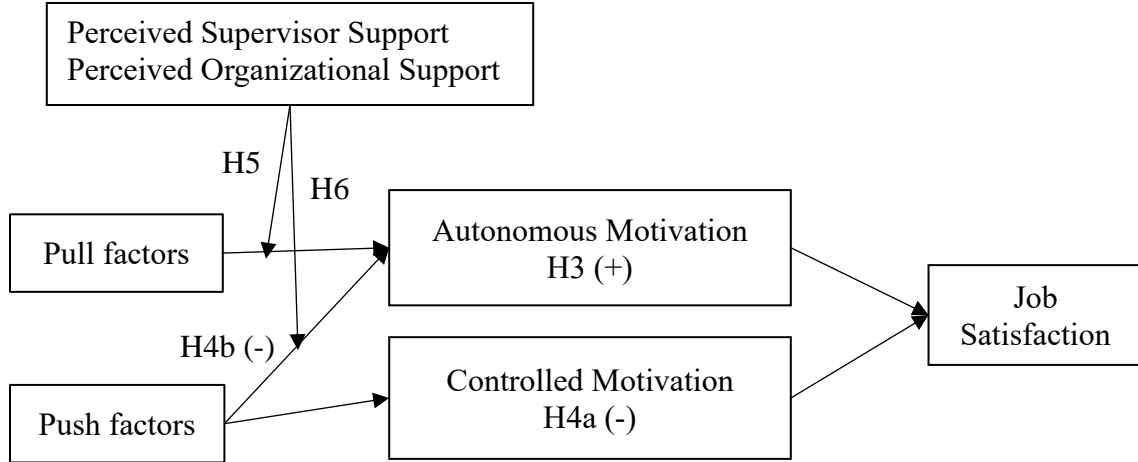
Figure 1: Composite model of contract worker motivation and outcomes

Table 1: Description of Variables Included in Model Analyses

Variable	Description
1. Gender	0 = Male, 1 = Female
2. Age	Continuous, in years
3. Race	0 = White, 1 = Non-White
4. University	0 = University 2, 1 = University 1
5. Education	0 = Terminal degree, 1 = Master's or Bachelor's degree
6. Experience	How many years have you been in your current adjunct instructor role? (Continuous, in years)
7. Multiple Institutions	Are you currently an adjunct instructor at more than one institution? (0 = one institutions, 1 = more than one institution),
8. Level of Instruction	(0 = no graduate courses, 1 = graduate courses)
9. Teaching Mode	What is the primary modality for delivering your current courses? (0 = in-person course components, 1 = fully online)
10. Primary Income	Is teaching your primary source of income? (0 = no, 1 = yes)
11. Pull factors	Five-item scale developed in this study. Measured on five-point Likert-type scale.
12. Push factors	Five-item scale developed in this study. Measured on five-point Likert-type scale.

(cont'd)

Variable	Description
13. Autonomous Motivation (AM)	Three items from the intrinsic motivation subscale of the Multidimensional Work Motivation Scale (MWMS; Gagné et al., 2015). Measured on seven-point Likert-type scale.
14. Controlled Motivation (CM)	Six items from the two extrinsic regulation subscales of the MWMS (Gagné et al., 2015). Measured on seven-point Likert-type scale.
15. Perceived Supervisor Support (PSS)	Eight-item Survey of Perceived Organizational Support (Rhoades & Eisenberger, 2002) targeting supervisor support. Measured on seven-point Likert-type scale.
16. Perceived Organizational Support (POS)	Eight-item Survey of Perceived Organizational Support (Rhoades & Eisenberger, 2002) targeting university support. Measured on seven-point Likert-type scale.
17. Job Satisfaction	Five-item shortened form of Brayfield-Rothe general job satisfaction scale (Brayfield & Rothe, 1951). Measured on seven-point Likert-type scale.

Table 2: Means, correlations and reliabilities of measurement variables

Variable	Mean	SD	1	2	3	4	5
1. Gender	0.37	0.48					
2. Age	54.00	13.15	-.20*				
3. Race	0.10	0.30	-.08	-.10			
4. University	0.70	0.46	-.36*	.34*	.16*		
5. Education	0.52	0.50	.00	-.11	-.04	-.22*	
6. Experience	10.84	8.33	-.07	.47*	.02	.29*	-.11
7. Multiple Institutions	1.81	0.90	.08	.38*	-.13	-.16*	.11
8. Level of Instruction	0.42	0.49	-.13*	.18*	.05*	.21*	-.28*
9. Teaching Mode	0.68	0.47	-.26*	.24*	.05	.74*	-.24*
10. Primary Income	0.32	0.47	.16*	-.14*	-.02	-.13*	.06
11. Pull factors	4.24	0.65	.08	.04	.12	.12	.00
12. Push factors	2.27	1.09	.06	-.29*	.11	-.10	-.01
13. AM	5.84	1.08	.02	.10	.09	-.08	.02
14. CM	3.14	1.31	.14*	-.23*	.08	-.03	-.08
15. PSS	5.05	1.41	-.01	.04	.06	-.16*	.17*
16. POS	4.27	1.50	-.04	.11	.09	.13*	.02
17. Job Satisfaction	5.93	1.04	-.01	.14*	.01	-.06	.04

(cont'd)

	6	7	8	9	10	11	12
7. University	.16*						
8. Level of Instruction	.19*	-.15*					
9. Teaching Modality	.23*	-.16*	.13				
10. Primary Income	-.06	.32*	-.16	-.10			
11. Pull factors	.04	.05	.02	.09	-.02	.65	
12. Push factors	-.14*	.12	-.14	-.07	.45*	.12	.82
13. AM	.05	.13	-.03	-.16*	.00	.48*	-.05
14. CM	-.06	-.05	-.03	.02	.20*	.08	.27*
15. PSS	-.09	.11	-.05	-.16*	-.02	.18*	-.08
16. POS	.02	.04	.07	.13*	-.06	.21*	-.17*
17. Job Satisfaction	.00	.09	.06	-.09	-.10	.22*	-.20*

(cont'd)

	13	14	15	16	17
13. AM	.90				
14. CM	.10	.85			
15. PSS	.34*	.03	.93		
16. POS	.29*	.05	.70*	.93	
17. Job Satisfaction	.47*	-.04	.36*	.33*	.85

Notes: Categorical variable definitions: Gender (0 = Male, 1 = Female), Race (0 = White, 1 = Non-White), University (0 = University 2, 1 = University 1), Education (0 = Terminal degree, 1 = Master's or Bachelor's degree), Multiple institutions (0 = one institutions, 1 =

more than one institution), Level of instruction (0 = no graduate courses, 1 = graduate courses), Teaching modality (0 = in-person course components, 1 = fully online), Primary income (0 = no, 1 = yes). AM = autonomous motivation, CM = controlled motivation, POS = perceived organizational support, PSS = perceived supervisor support. N = 241, * $p < .05$. Cronbach's alpha is reported along the diagonal in italics.

Table 3: Summary of CFA Model Analysis

Model (No. of Factors)	Factors	CFI	Δ CFI	RMSEA	RMSEA 90% CI	SRMR
1	One factor	.41		.15	[.15, .16]	.14
2	Positive scales (Pull factors, AM, POS, PSS and JS), Negative Scales (Push factors, CM)	.49	.08	.14	[.14, .15]	.13
3	Pull/Push factors, Mediators/Moderators (AM, CM, POS, PSS), JS	.53	.04	.14	[.13, .14]	.14
4	Pull/Push factors, Mediators (AM, CM), Moderators (POS, PSS), JS	.60	.07	.13	[.12, .13]	.14
5	Pull/Push factors, Mediators (AM, CM), POS, PSS, JS	.72	.12	.11	[.10, .11]	.13
6	Pull/Push factors, AM, CM, POS, PSS, JS	.80	.08	.09	[.09, .09]	.11
7	Pull factors, Push factors, AM, CM, POS, PSS, JS	.84	.04	.08	[.08, .08]	.08

Notes: AM = autonomous motivation, CM = controlled motivation, POS = perceived organizational support, PSS = perceived supervisor support, JS = job satisfaction. $N = 241$.

Table 4: Effects of Pull and Push Factors on Job Satisfaction

	b	SE	t	<i>p</i>
Predictors				
Pull factors	0.42	0.10	4.04	<.01
Push factors	-0.21	0.07	-2.99	<.01
Covariates				
Gender	-0.10	0.15	-0.67	.50
Age	0.01	0.01	1.11	.27
Race	0.11	0.22	0.50	.62
University	-0.23	0.23	-1.02	.31
Education	0.02	0.14	0.16	.88
Teaching experience	-0.01	0.01	-0.86	.39
Multiple Institutions	0.09	0.09	0.97	.33
Level of instruction	0.11	0.14	0.77	.44
Teaching mod	-0.14	0.21	-0.69	.49
Primary source of income	-0.05	0.17	-0.29	.77

Notes: Categorical variable definitions: Gender (0 = Male, 1 = Female), Race (0 = White, 1 = Non-White), University (0 = University 2, 1 = University 1), Education (0 = Terminal degree, 1 = Master's or Bachelor's degree), Multiple institutions (0 = one institutions, 1 = more than one institution), Level of instruction (0 = no graduate courses, 1 = graduate courses), Teaching mode (0 = in-person course components, 1 = fully online), Primary source of income (0 = no, 1 = yes). N = 241.

Table 5: Regression coefficients testing the moderated mediation of pull factor and job satisfaction scores through autonomous motivation

	Autonomous Motivation				Job Satisfaction			
	b	SE	t	<i>p</i>	b	SE	t	<i>p</i>
Predictors								
Pull factors	0.78	0.10	7.92	<.01	0.05	0.11	0.45	.65
Push factors	-0.10	0.07	-1.52	.13	-0.15	0.07	-2.35	.02
PSS	0.11	0.06	1.65	.10				
POS	0.07	0.06	1.22	.23				
Mediator								
Autonomous Motivation					0.42	0.07	6.49	<.01
Interactions								
Pull*PSS	-0.07	0.09	-0.72	.47				
Pull*POS	0.07	0.08	0.81	.42				
Covariates								
Gender	-0.16	0.13	-1.17	.24	-0.02	0.14	-0.17	.86
Age	0.01	0.01	0.93	.35	0.00	0.01	0.71	.48
Race	0.20	0.20	0.97	.33	-0.00	0.21	-0.01	.99
University	-0.11	0.21	-0.50	.62	-0.18	0.21	-0.84	.40
Education	-0.15	0.13	-1.16	.25	0.07	0.13	0.56	.57

(cont'd)

	Autonomous Motivation				Job Satisfaction			
	b	SE	t	<i>p</i>	b	SE	t	<i>p</i>
Experience	0.01	0.01	0.96	.34	-0.01	0.01	-1.16	.25
Multiple institutions	0.01	0.08	0.16	.88	0.07	0.08	0.87	.39
Level of instruction	-0.13	0.13	-1.00	.32	0.16	0.13	1.24	.21
Teaching mode	-0.50	0.19	-2.57	.01	0.08	0.19	0.39	.69
Primary source of income	0.11	0.15	0.70	.48	-0.10	0.15	-0.66	.51

Notes: Categorical variable definitions: Gender (0 = Male, 1 = Female), Race (0 = White, 1 = Non-White), University (0 = University 2, 1 = University 1), Education (0 = Terminal degree, 1 = Master's or Bachelor's degree), Multiple institutions (0 = one institutions, 1 = more than one institution), Level of instruction (0 = no graduate courses, 1 = graduate courses), Teaching mode (0 = in-person course components, 1 = fully online), Primary source of income (0 = no, 1 = yes). POS = Perceived organizational support, PSS = Perceived supervisor support. *N* = 241.

Table 6: Regression coefficients testing the mediation of push factor and job satisfaction scores through controlled motivation

	Controlled Motivation				Job Satisfaction			
	b	SE	t	<i>p</i>	b	SE	t	<i>p</i>
Predictors								
Pull factors	0.11	0.13	0.84	.40	0.41	0.10	4.00	<.01
Push factors	0.20	0.09	2.24	.03	-0.21	0.07	-3.02	<.01
Mediator								
Controlled Motivation					0.02	0.05	0.44	.66
Covariates								
Gender	0.28	0.18	1.50	.14	-0.10	0.15	-0.71	.48
Age	-0.02	0.01	-2.09	.04	0.01	0.01	1.16	.25
Race	0.15	0.28	0.54	.59	0.11	0.22	0.48	.63
University	-0.00	0.29	-0.01	.99	-0.23	0.23	-1.01	.31
Education	-0.19	0.17	-1.11	.27	0.03	0.14	0.19	.85
Experience	0.01	0.01	0.50	.62	-0.01	0.01	-0.88	.38
Multiple institutions	-0.04	0.12	-0.35	.72	0.09	0.09	0.98	.33
Level of instruction	0.05	0.18	0.28	.78	0.11	0.14	0.76	.45
Teaching mode	0.20	0.26	0.76	.45	-0.15	0.21	-0.71	.48
Primary source of income	0.32	0.21	1.54	.12	-0.06	0.17	-0.33	.74

Notes: Categorical variable definitions: Gender (0 = Male, 1 = Female), Race (0 = White, 1 = Non-White), University (0 = University 2, 1 = University 1), Education (0 = Terminal degree, 1 = Master's or Bachelor's degree), Multiple institutions (0 = one institutions, 1 = more than one institution), Level of instruction (0 = no graduate courses, 1 = graduate

courses), Teaching mode (0 = in-person course components, 1 = fully online), Primary source of income (0 = no, 1 = yes). $N = 241$.

Table 7: Regression coefficients testing the moderated mediation of push factor and job satisfaction scores through autonomous motivation

	Autonomous Motivation				Job Satisfaction			
	b	SE	t	<i>p</i>	b	SE	t	<i>p</i>
Predictors								
Pull factors	0.77	0.10	7.90	<.01	0.05	0.11	0.45	.65
Push factors	-0.09	0.07	-1.42	.16	-0.15	0.07	-2.35	.02
PSS	0.11	0.06	1.75	.08				
POS	0.07	0.06	1.15	.25				
Mediator								
Autonomous Motivation					0.42	0.07	6.49	<.01
Interactions								
Push*PSS	-0.03	0.05	-0.56	.57				
Push*POS	0.02	0.05	0.46	.65				
Covariates								
Gender	-0.15	0.13	-1.14	.26	-0.02	0.14	-0.17	.86
Age	0.01	0.01	0.90	.37	0.00	0.01	0.71	.48
Race	0.18	0.21	0.89	.38	-0.00	0.21	-0.01	.99
University	-0.08	0.21	-0.37	.71	0.18	0.21	-0.84	.40
Education	-0.17	0.13	-1.33	.18	0.07	0.13	0.56	.57

(cont'd)

	Autonomous Motivation				Job Satisfaction			
	b	SE	t	<i>p</i>	b	SE	t	<i>p</i>
Experience	0.01	0.01	0.92	.36	-0.01	0.01	-1.16	.25
Multiple institutions	0.02	0.09	0.22	.83	0.07	0.08	0.87	.39
Level of instruction	-0.14	0.13	-1.10	.27	0.16	0.13	1.24	.21
Teaching modality	-0.53	0.19	-2.74	<.01	0.08	0.19	0.39	.69
Primary source of income	0.11	0.15	0.74	.46	-0.10	0.15	-0.66	.51

Notes: Categorical variable definitions: Gender (0 = Male, 1 = Female), Race (0 = White, 1 = Non-White), University (0 = University 2, 1 = University 1), Education (0 = Terminal degree, 1 = Master's or Bachelor's degree), Multiple institutions (0 = one institutions, 1 = more than one institution), Level of instruction (0 = no graduate courses, 1 = graduate courses), Teaching modality (0 = in-person course components, 1 = fully online), Primary source of income (0 = no, 1 = yes). POS = Perceived organizational support, PSS = Perceived supervisor support. *N* = 241.

Table 8: Summary of Hypotheses Support

Hypothesis	Result
1. The higher presence of pull factors for choosing contracting work corresponds to higher levels of reported job satisfaction.	Supported
2. The higher presence of push factors for choosing contracting work corresponds to lower levels of reported job satisfaction.	Supported
3. The positive relationship between pull factors and job satisfaction is mediated by higher autonomous motivation.	Supported
4a. The negative relationship between push factors and job satisfaction is mediated by higher controlled motivation.	Not Supported
4b. The negative relationship between push factors and job satisfaction is mediated by lower autonomous motivation.	Not Supported
5. The positive relationship between pull factors and autonomous motivation will be stronger (weaker) when a) POS and b) PSS are high (low).	Not Supported
6. The negative relationship between push factors and autonomous motivation will be weaker (stronger) when a) POS and b) PSS is high (low).	Not Supported

APPENDIX 1: SURVEY INSTRUMENT

Round 1 Survey Items

1. Demographics

1. Personal/family data

1.1 What is your gender?

Male

Female

Non-binary/third gender

Prefer not to say

1.2 What is your age?

1.3 Are you Hispanic, Latino, or Spanish origin?

Yes

No

1.4 What is your race (you may choose more than one)?

White

Black or African American

American Indian or Alaska Native

Asian

Native Hawaiian or Other Pacific Islander

Other

2. Work Characteristics

2.1 What is the highest level of school you have completed or the highest degree you have received?

Bachelor's degree (For example: BA, AB, BS)

Master's degree (For example: MA, MS, MEng, MEd, MSW, MBA)

Professional School Degree (For example: MD, DDS, DVM, LLB, JD)

Doctorate degree (For example: PhD, EdD)

2.2. Do you have a currently active professional certification or a state or industry license relevant to the content you teach?

Yes

No

2.3 How many years of professional work experience do you have in the content areas that you teach?

2.4 How many years have you been in your current adjunct instructor role (enter 0 if this is your first semester)?

2.5 How many courses are you teaching this semester?

2.6 Throughout your teaching career, how many courses have you taught, on average, during an academic year?

2.7 How many years have you been involved with adjunct instructing?

2.8 Are you currently an adjunct instructor at more than one institution?

Yes

No

2.9 Do you currently have paid employment outside of your adjunct instructing role?

Full-time

Part-time

Not at all

2.10 Is teaching your primary source of income?

2.11 In which discipline do you primarily teach?

2.12 In which college(s) do you currently teach?

2.13 Do you teach undergraduate level courses?

Yes

No

2.14 Do you teach graduate level courses?

Yes

No

2.14 What is the primary modality for delivering your current courses?

In-person

Online

Hybrid online and in-person

2.15 Prior to 2020, did you deliver courses online?

Yes, fully online

Yes, both online and in-person

No, only in person

2.16 select the option that represents your level of agreement with that statement.

In my work as an adjunct instructor:

1. I am able to choose when to complete my work

2. I am able to choose where I complete my work

3. The university exerts administrative control (Reverse scored)

5-point response scale (1 = strongly disagree, 5 = strongly agree)

3. Pull and push factors

Rate how important each statement was when making the decision to become an adjunct instructor.

1-Not Important at all to 5-Very Important

Pull Factors

1. I was attracted to the flexible work schedule

2. I thought that I would get enjoyment from teaching

3. I thought it would fulfill my potential as a person

4. I thought I would enjoy the challenge of teaching.

5. I wanted to share my knowledge with others

Push Factors

1. I lacked other job opportunities.

2. The income was necessary

3. I saw it as a step towards full-time employment as instructor

4. It was the best work option available.

5. I was able to secure a full-time role as instructor

4. Contact information

To be contacted for the second and third surveys in this study, please enter a contact email below. The total time to complete subsequent surveys should be around five minutes total. To protect confidentiality of data, email addresses will be destroyed at the completion of the research study.

By completing all three survey rounds for this study, you will be entered in a random drawing for twenty \$25 gift cards.

Contact email address:

Confirm email address:

Round 2 Survey Items

2.1 Multidimensional Work Motivation Scale (MWMS) (Gagne, et al., 2015)

Stem: Below are a series of statements on why individuals put effort into their work. Please describe the extent to which each statement is true regarding why you put effort into your adjunct instructor work.

Scale: 1 = “not at all”, 2 = “very little”, 3 = “a little”, 4 = “moderately”, 5 = “strongly”, 6 = “very strongly”, 7= “completely”

Controlled motivation

Extrinsic regulation—social

Ext-Soc1: To get others’ approval (e.g., supervisor, colleagues, family, clients ...).

Ext-Soc2: Because others will respect me more (e.g., supervisor, colleagues, family, clients ...).

Ext-Soc3: To avoid being criticized by others (e.g., supervisor, colleagues, family, clients ...).

Extrinsic regulation—material

Ext-Mat1: Because others will reward me financially only if I put enough effort in my job (e.g., employer, supervisor ...).

Ext-Mat2: Because others offer me greater job security if I put enough effort in my job (e.g., employer, supervisor ...).

Ext-Mat3: Because I risk losing my job if I don’t put enough effort in it.

Autonomous Motivation

Intrinsic motivation

Intrin1: Because I have fun doing my job.

Intrin2: Because what I do in my work is exciting.

Intrin3: Because the work I do is interesting.

2.2 Perceived Supervisor and Organizational Support` (Rhoades & Eisenberger, 2002)

For each of the following statements about your **university**, indicate the extent to which you agree or disagree.

Change “university” to “supervisor/department chair” for PSS

1. My organization cares about my opinions.
2. My organization really cares about my well-being.
3. My organization strongly considers my goals and values.
4. Help is available from my organization when I have a problem.
5. My organization would forgive an honest mistake on my part.
6. If given the opportunity, my organization would take advantage of me. (R)
7. My organization shows very little concern for me. (R)
8. My organization is willing to help me, if I need a special favor.

7-point response scale (1 = strongly disagree, 7 = strongly agree);

Round 3 Survey Items

3.1 Job Satisfaction (Brayfield-Rothe 1951; Judge, et al., 1988)

For each of the following statements, indicate the extent to which you agree or disagree based on how you feel about your current work as an adjunct instructor.

1. I feel fairly well satisfied with my present job
2. Most days I am enthusiastic about my work
3. Each day of work seems like it will never end (R)
4. I find real enjoyment in my work
5. I consider my job rather unpleasant (R)

7-point response scale (1 = strongly disagree, 7 = strongly agree)

APPENDIX 2: PULL AND PUSH FACTOR PILOT STUDY—STAGE 1

Study Description

The purpose of this brief survey is to identify and categorize the reason why an individual would choose to accept a role as an adjunct instructor.

In this study, I seek to explain the relationship between the rationale why workers choose to be independent contractors (pull and push factors) and their resultant job satisfaction. Pull factors represent intrinsic needs that yield positive benefits, drawing workers into voluntarily accepting contracting roles. Push factors arise because of external or immediate needs placed upon workers that cause them to accept less preferred contracting roles. While pull and push factors have been shown to influence job satisfaction, less about why. I am using self-determination theory to suggest that job satisfaction is mediated by the contractor's level of autonomous and controlled motivation and that autonomous motivation is moderated by the level of perceived supervisor and organizational support.

1. Below is a list of statements based upon literature that are potential **pull** factors of why adjunct instructors would **voluntarily** select an adjunct role. Review the list of potential pull factors and suggest additional reasons why adjunct instructors may be pulled into their role. Please be as comprehensive as possible.

1. Self-satisfaction
2. Sharing my knowledge with others
3. Enjoys the challenge
4. The joy of teaching
5. Can control workload
6. Autonomy
7. Flexible work schedule
8. Mission of the school
9. Being current in my professional career
10. Interactions with students
11. Professional Networking
12. Exploring a new career
13. Serving society

Below is a list of statements based upon literature that are potential **push** factors of why adjunct instructors would **involuntarily** select an adjunct role. Review the list of potential pull factors and suggest additional reasons why adjunct instructors may be pushed into their role. Please be as comprehensive as possible.

1. Additional income
2. Recognition from being instructor
3. Professional networking
4. Emulate respected teacher
5. Emulate a mentor

6. Step towards full-time teaching
7. Appreciation from students
8. Gain respect of others
9. Exploring a new career
10. Advancement opportunities
11. Need employment

APPENDIX 3: PULL AND PUSH FACTOR PILOT STUDY—STAGE 2

Please read the instructions very carefully. The questions are unique to survey measurement development and require detailed attention.

Research projects in the management field often use survey items to measure work concepts, such as work motivation, job satisfaction, and employee stress. When writing survey items, management researchers must take great care to ensure that the items do a good job of measuring the concepts of interest (e.g., that an item intended to measure work motivation really seems to capture that concept well). The goal of this study is to assess survey items used in the management literature.

Your job in this survey is to assess the degree to which each item listed matches the statement provided.

On the next few pages, you will see a bolded statement, followed by several survey items. For each item, you will rate the degree to which it matches the bolded statement. The items will repeat themselves on three consecutive pages, but the bolded statements will change. Again, simply rate the degree to which each item matches the bolded statement on that page.

Not all of the items will match the bolded statement. Therefore, please pay close attention to each individual question as you decide whether it matches the bolded statement. Before beginning the survey, below is an example to help guide your understanding of the survey.

The survey asks you to judge how well a survey item matches particular statements, which will be presented to you in bold. You will make that judgment using this response scale:

1	2	3	4	5	6	7
Item does a	Item does a	Item does a	Item does a	Item does a	Item does a	Item does a
EXTREMELY BAD	VERY BAD	SOMEWHAT BAD	an ADEQUATE	SOMEWHAT GOOD	VERY GOOD	EXTREMELY GOOD
job of measuring the bolded concept above	job of measuring the bolded concept above	job of measuring the bolded concept above	job of measuring the bolded concept above	job of measuring the bolded concept above	job of measuring the bolded concept above	job of measuring the bolded concept above

For example, let's say the statement is: **Work Motivation: The effort expended in relation to work.**

Since this statement refers to effort, an item that does a good job matching this statement might be, "I work hard in my job," because it speaks to a certain effort level at work. An item that also does a good job matching this statement might be, "I often feel lazy at the office," because it also speaks to a certain effort level at work. In contrast, an item that

does a bad job matching this statement might be, “I work in a city,” because it has very little to do with the effort level at work. Please note that some of the items on the survey will focus on high levels of a given concept (like the “I work hard” item), whereas others will focus on low levels of a given concept (like the “I often feel lazy” item). Both can capture the concept of expending effort equally well.

LET’S PRACTICE!

Using the example above, please rate the following three items on how well each does matching our concept, **Work Motivation: The effort expended in relation to work.**

I work hard in my job

I work in a basement

I lack energy when working

1. Please rate the following items on how well each does matching our concept, **Pull Factors: Reasons of why an individual is personally drawn to accept an adjunct instructor role.**

2. Please rate the following items on how well each does matching our concept, **Push Factors: Reasons why an individual may feel compelled to accept an adjunct instructor role.**

List of rationale:

1. Self-satisfaction
2. Fulfillment of your full potential as a person.
3. Sharing my knowledge with others
4. Develop new skills
5. Helping others realize their potential.
6. Enjoys the challenge
7. A desire to teach.
8. General love of academia
9. Can control workload
10. Autonomy
11. Flexible work schedule
12. Mission of the university
13. Values of the university
14. Graduate of the university
15. Loyalty to hiring university
16. Being current in my professional career
17. Ability to create a portfolio of complementary work roles
18. Break up the monotony of a regular job.
19. Interactions with students
20. Appreciation from students
21. Exploring a new career
22. Serving society
23. Giving back

24. Additional income
25. Recognition of being an instructor
26. Gain respect of others
27. Enhanced professional profile
28. Professional networking
29. Emulate respected teacher
30. Emulate a mentor
31. A step towards full-time teaching
32. Advancement opportunities
33. Need employment