EMPLOYED YOUTH: AN EXPLORATION OF THE RELATIONSHIP BETWEEN JOB QUALITY AND COUNTERPRODUCTIVITY

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ABSTRACT

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The relatively weak understanding of youth employment is underscored by the dearth of research investigating the quality of their work (Stone & Mortimer, 1998). Young employees in low-quality jobs are purported to engage in low-level counterproductivity (e.g., theft, production deviance, withdrawal), which has been causally linked to low job satisfaction and frustration. The present study focused on these premises, measuring job quality from two perspectives – self reports and O*Net job descriptions. Findings provided some support for the mediating role of affective reactions in the relationship between self reported job quality and CWBs. Specifically, results indicated that qualitative work intensity may play an important role in developing job related affect, which can influence engagement in counterproductivity. This highlights the importance of job quality and affect in the workplace.

This dissertation is dedicated to my husband Matthew.

The success of this work belongs to him as much as to anyone else.

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CHAPTER I: INTRODUCTION

Youth around the world are working at high rates, yet there is little agreement as to whether this experience is positive or negative. One principal argument is that today's employed youth exhibit lower levels of diligence and honesty than those of past generations, and that this discrepancy is causally related to counterproductive behaviors at work (Hollinger & Clark, 1983). Estimates of the prevalence of theft and nontheft deviance in young workers are surprisingly high, at 41% and 45%, respectively (Ruggiero, Greenberger, & Steinberg, 1982). For some youth-dominated industries (e.g., food service; Hollinger, Slora, & Terris, 1992), estimates are even higher. This brings to the forefront the age-old "bad apples" versus "bad barrels" (Trevino & Youngblood, 1990) argument as to whether the person or the situation is responsible for counterproductivity in this demographic. Surely, young employees are not "bad apples in bad barrels" – or are they?

From the perspective of the organization, resolution of this dilemma may depend on the quality of the jobs available to their young employees (Hollinger & Clark, 1983). Despite the fact that today's young workforce represents the most highly educated and trained generation to enter the workforce (Department of Economic and Social Affairs, 2004), the employment options available to them are usually of low quality. Industries that typically employ young workers typically offer low-paying, low-status job opportunities. In fact, the majority of employed youth works part time and may tolerate jobs that adults would not find tolerable (Greenberger & Steinberg, 1986). This, coupled with the fact that the jobs available for young workers are rarely connected to their school studies or career goals (Stone & Mortimer, 1998; Stone, Stern, Hopkins, & McMillian, 1991), is likely to result in negative affective reactions (Spector & Fox, 2005), which in turn may influence counterproductive behaviors.

More problematic is the fact that low-intensity counterproductive work behaviors may often go undetected, costing the organization unknown financial profits. Although organizations may target observable counterproductivity, limited consideration is given to the precipitating factors of both overt and covert counterproductive behaviors, particularly in a young sample. Existing research indicates that employee counterproductivity is highest in settings that consist primarily of young, inexperienced workers, so comprehension of the mechanisms surrounding this phenomenon is paramount (Hollinger, Slora, & Terris, 1992).

Quality of work has been suggested as a primary factor in determining whether outcomes from employment experiences are positive or negative (Barling, Rogers & Kelloway, 1995; Loughlin & Barling, 1998; Mortimer, Harley & Staff, 2002). Causes of affective reactions and behaviors may be fundamentally different for a young population, because their tenure in the workforce is far less than that of adults. Thus, it is important to consider *why* some individuals develop negative affective reactions from early work experiences and why some do not develop these affective reactions.

For the most part, research on young workers has focused on clinical (e.g., Weisner, Windle, & Freeman, 2005) or academic outcomes (e.g., Markel & Frone, 1998), using samples of high school adolescents (e.g., Frone, 1998; Greenberger & Steinberg, 1986). The stressor-emotion model (Spector & Fox, 2005) offers a partial explanation for this occurrence by linking stressful environmental conditions of work to negative affective reactions and counterproductive behaviors. Because most Americans begin working for pay while in high school, a time when young workers are developing their career-related values and preferences (Mortimer & Johnson, 1999), it is particularly important to examine factors that contribute to counterproductivity so that it does not become a pervasive behavioral pattern.

Little, if any, research has focused on working college students, a population comprised of over one-third of Americans 18-24 years old (Chao, Uhalde, & Fiala, 2001). This group is often over-qualified for jobs that are dominated by high school students, but they may not be privy to the types of jobs available to adult workers. This makes them highly likely to experience the frustration and job dissatisfaction from low quality work, which may manifest in counterproductive work behaviors.

THE PRESENT STUDY

The primary goal of the proposed study was to examine counterproductivity in young workers. The relationship between job satisfaction and frustration as antecedents of counterproductive behavior has been established (e.g., Boling & Heatherly, 2001, Hollinger & Clark, 1982a, Spector & Fox, 2005), yet the role of job quality has received little empirical scrutiny with a young population. In the present study, lack of job quality was explored, to determine its effect on affective reactions and counterproductivity. This premise was loosely rooted on Spector and Fox's (2005) stressor-emotion model, which posits that affective reactions mediate the relationship between job stressors and counterproductivity. Specifically, this study focused on employed college students to explore how job satisfaction and frustration mediate the relationship between job quality [or lack thereof] and counterproductive work behaviors. Employment quality was operationalized through seven dimensions: autonomy, learning and mastery, occupational advancement, identity clarification, social connectedness, adult mentoring, and work intensity. These dimensions were measured through self reports from the job incumbents, as well as through coding of non self report data from the Occupational Information Network (O*Net). In order to ensure results were not due to extraneous circumstances, individual differences in conscientiousness and emotional stability were assessed. Likewise, surveillance was measured to control for the work environment. Results may prove useful in identifying factors that influence formation of attitudes and manifestation of counterproductive behaviors in the workplace.

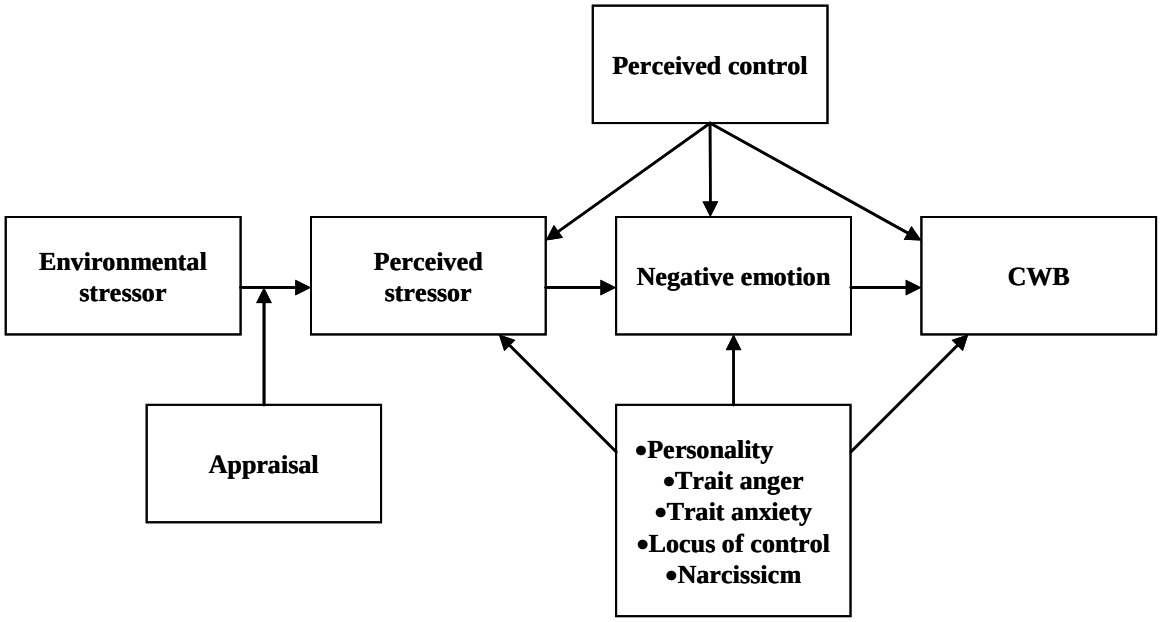
The secondary goal of this study was to extend findings from previous qualitative studies of teenage workers to develop a more consistent conceptualization of and measurement tool for the concept of work quality. Most studies of work quality have used models developed for

adults, but indicators of work quality that are most salient for adults may differ from those of young workers; thus, the components of work quality that were used in this study were generated from a large-scale study of employed youth (see Greenberger & Steinberg, 1986). Thus, constructs may be more relevant to a young population of employees. A brief introduction to the stressor-emotion model and general youth employment literature precedes a discussion of each component of the proposed model. Job quality is addressed first, followed by affective reactions, counterproductive work behaviors, and control variables.

Stressor-Emotion Model

The framework for the present study was an extension of the stressor-emotion model (see Figure 1; Spector & Fox, 2005). This model incorporates perceptions of job-related conditions as stressors, which lead to affective reactions. These affective reactions mediate the relationship between the environmental stress-inducing stimulus, and the level of engagement in counterproductive work behaviors (Scherer, 1994). This model is rooted in the frustration-aggression hypothesis of Dollard, Doob, Miller, Mowrer and Sears (1939), who proposed that frustration, in the form of goal interference, will lead to some form of aggression. The closer one is to his or her goal, the more frustration that will result from lack of goal attainment.

Figure 1. Stressor-Emotion Model of Counterproductive Work Behavior[i]



Fox and Spector's stressor-emotion model extends Dollard and colleagues' framework to include a broader range of negative emotions and extends the notion of goal frustration to include a wider range of stressors beyond goal interference. Antecedents have been conceptualized in many ways, from organizational constraints (Fox & Spector, 1999) to injustice (Folger & Baron, 1996) to stressful job conditions (Spector & Fox, 2005). In addition, personality characteristics have been included in the model as factors that may influence perceptions of job quality (e.g., personality, trait anxiety) and the tendency to respond more negatively (e.g., trait anger; locus of control) (Fox & Spector, 1999; Spector & Fox, 2005).

Fox and Spector's (2005) model broadens Dollard and colleagues' aggression concept to include less intense forms of aggressive response patterns (e.g., low-intensity counterproductivity). In short, the stressor-emotion model, in combination with the frustration-

[i] From Spector & Fox (2005, p. 158)

aggression hypothesis, is analogous to the general stressor-strain model, which has dominated occupational stress literature for the past decade (e.g., Spector, Fox, Penney, Bruursema, Goh & Kessler, 2005; Spector & Jex, 1998). Stressors represent work-related characteristics that can elicit stress, and strain represents the negative response to this stress (Hurrell, Nelson & Simmons, 1998); these are causally related in the stressor-strain model.

Few studies have been conducted on these variables using a sample of working college students. Those that have examined organizational outcomes typically focus on school as the organization, using grades, attendance and homework as organizational indicators (Barling, Rogers, & Kelloway, 1995). This study extended beyond the framework of the stressor-emotion hypothesis to test the mediating effects of frustration and job satisfaction on the relationship between job quality and counterproductive work behaviors. Thus, the focus was on the employing organization, rather than on an academic setting.

To quantify job quality, each quality dimension was indexed by self-report data, as well as non self-report data from the Occupational Information Network (O*Net) coded by two independent raters. This bolstered results by providing two different sources of job quality ratings. Because jobs typically held by this sample are limited in the level of responsibility granted by their occupations, locus of control and narcissism were not included in this model. Similarly, due to the low intensity counterproductive outcomes included in this study, trait anger was not included. Conscientiousness, emotional stability and surveillance were included as control variables.

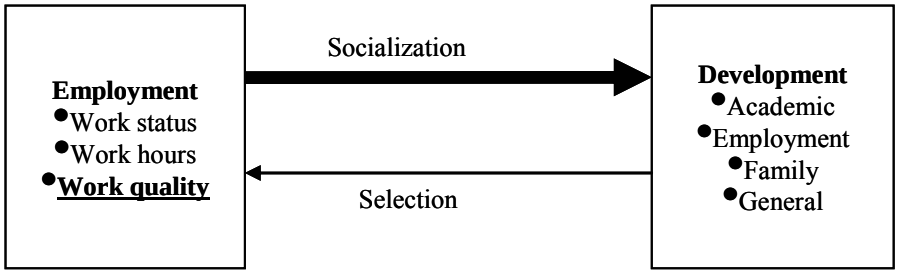
Overview of Young Workers

For decades, researchers and policy makers have debated the costs and benefits associated with young workers. Historically, arguments for youth employment centered on

Preparation for the future (Coleman, 1972), while arguments against youth employment focused on work interfering with adolescent development and schoolwork (Bachman, 1983; Greenberger & Steinberg, 1986). Research on youth employment has given limited attention to work quality and work-related outcomes, focusing instead on employment status and family, school and social outcomes (Stone & Mortimer, 1998). Because family, school and social outcomes are tied to the workplace, this setting cannot be overlooked in studies of youth employment (Mortimer & Shanahan, 1994; Steinberg & Cauffman, 1995). With the exception of work quantity (e.g., hours), little research has focused on content of youth jobs.

Frone (1999) summarized prior research on adolescent employment through a model incorporating employment predictors and developmental outcomes that are reciprocally linked by socialization and selection (see Figure 2). Employment is characterized by work status, work hours and work quality. The latter refers to the psychosocial aspects of the job, and current youth research has only recently begun to focus on this "black box" (Mortimer & Finch, 1996). Developmental outcomes are categorized as academic, employment, family and general. The bulk of previous research has focused on academic (e.g., GPA) and employment (e.g., ability to get a job in the future) outcomes. The most common way to link antecedents and outcomes is through the socialization hypothesis, which suggests causal relationships between these groups (Frone, 1999; Greenberger & Steinberg, 1986). The selection hypothesis suggests that youth pick their jobs due to their preexisting characteristics (Bachman & Schulenberg, 1993; Barton, 1989; Frone, 1999). These hypotheses are not competing, per se, but they are indicative of the need for further research on youth employment that focuses on the larger scope of youth work – the organization. The present study will merge these perspectives by examining work quality and job-related outcomes. Each was described in the subsequent sections.

Figure 2. Previous Research on Youth Employment[i]



Before discussion of pertinent areas of research, it is important to define what is meant by the term 'youth'. As Loughlin and Lang (2005) point out, although young workers are grouped together (e.g., "Generation Next") the term 'youth' does not refer to a homogeneous group. Typically, youth are defined as individuals between 15 and 24 years of age; this group is further divided into two categories, ages 15-19 and 20-24, to reflect the qualitative difference between high school and post-high school employees (Loughlin & Barling, 2001). Since the 1970's, researchers have examined employment on the former group, which primarily consist of teenagers enrolled full-time in school. Interestingly, little research has focused on the latter group, those who may or may not be college attendees. This is qualitatively interesting, because this group is closer in age to the samples used for adult employment studies. Most will not enter the full-time employment realm until well into their 20's (Kerckhoff, 2002; Tannock, 2002).

Stable jobs that pay well are available primarily for "knowledge workers", a group that has achieved higher levels of education and training prior to workforce entrance (Tannock, 2002). College students are a unique sample because they are pursuing higher education, presumably to attain this status as "knowledge workers". Current surveys of young Americans report that approximately 60% of youth will obtain some form of college education (Kerckhoff, 2002). Due to this "educational arms race" (Livingstone, 1999), jobs available for young workers with less education have become scarce (Loughlin & Barling, 1999). Intuitively, one might

suspect that the jobs students select while in college are highly reflective of career goals, yet this is not always the case. Often, working college students must find part-time jobs that are flexible enough to accommodate school schedules (Tannock, 2002). In addition, college students may be in a transition phase in which they may be increasingly more financially responsible for their livelihood. While high school students typically work at or around minimum wage (Greenberger & Steinberg, 1986), college students who are supporting themselves may seek jobs in which they can achieve more financial security, so that they can pay for tuition, rent and books (Tannock, 2002).

For adult employees "future-oriented" benefits such as promotion and pay increases, as well as other fringe benefits, are important considerations in a job; for college students, these benefits may not be offered or may not be valued due to the temporary nature of their jobs (Greenberger & Steinberg, 1986; Loughlin & Barling, 1999). Furthermore, younger workers are less likely to recognize and object to bad working conditions; because work is temporary, they may simply change to another job if dissatisfied with their current jobs (Department of Economic and Social Affairs, 2004). Together, these challenges represent the "paradox of college student employment", in which college students may be employed in the same types of jobs that they are attending college to escape (Tannock, 2002). This creates a major problem for organizations that typically employ young workers, in that they are faced with retention and training issues due to high turnover rates, or undetected counterproductivity.

Introduction to Counterproductive Work Behaviors

Counterproductive work behaviors (CWBs) are volitional behaviors that are contrary to the organization's legitimate interests (Sackett & DeVore, 2001; Spector & Fox, 2005). These are also referred to by the following names in other disciplines: antisocial behaviors (Hogan &

Hogan, 1989), deviant behaviors (Robinson & Bennett, 1995), maladaptive behaviors (Perlow & Latham, 1993) or anti-role behaviors (McLean Parks & Kidder, 1994), and organizational misbehaviors (Vardi & Weitz, 2001). CWBs are often a response to job stressors or other job factors induced by negative emotions, such as frustration and job dissatisfaction (Hollinger & Clark, 1983; Rosse & Saturay, 2004; Spector, 1978; Spector & Fox, 2005). Behaviors range in intensity from relatively low-level day-to-day activities (e.g., excessive breaks) to high-level behaviors for which formal laws exist (e.g., embezzlement) (Collins & Griffin, 1998).

Employee counterproductivity is not a unidimensional construct, and the severity of counterproductive behaviors varies considerably (Hollinger, Slora, & Terris, 1992; Robinson & Greenberg, 1998; Spector et al, 2005). Generally, CWBs have been categorized into two groups, depending on the target: people or organizations (Robinson & Bennett, 1995). Although some ambiguity exists among the targets of the actions, most can be categorized as one or the other (Spector & Fox, 2005). To the extent that these CWBs interfere with an employee's ability to complete job tasks, either intentionally or unintentionally, they may result in negative consequences for organizational performance and climate (Fox & Spector, 1999). Due to the target sample's age and relative inexperience in the workforce, this study focused on low-intensity CWBs directed toward the organization.

Age and work experience have been significantly and negatively related to categories of CWBs (Gruys & Sackett, 2003; Hollinger & Clark, 1983), and engagement in such behaviors increases the likelihood of subsequent behaviors (Gruys & Sackett, 2003). The type of CWB in which an employee engages is likely dependent on his or her level in the organization (Murphy, 1993). Younger employees are more likely to be employed in lower level occupations, which makes it less likely that they would have the opportunity to engage in high-intensity CWBs (e.g.,

stock manipulation, large-scale embezzlement) (Murphy, 1993). Ruggiero and colleagues (1982) found that 60% of first-time workers had committed at least one counterproductive act while at work. This statistic may be conservative, as estimates for some domains (e.g., fast food industry) suggest that over 80% of employees admit engaging in some form of CWB (Hollinger, Slora & Terris, 1992). The prevalence of CWBs in young workers is particularly alarming, because deviant behavior may change form and evolve with time (Robinson & Greenberg, 1998). Furthermore, CWBs have been linked to intent to quit (Hollinger & Clark, 1982a), which suggests that further understanding of factors related to CWBs may help address the high turnover for sectors that employ large numbers of young workers.

Perceptions of the work environment, job satisfaction and frustration have each been linked to CWBs (for a summary see Kidwell & Martin, 2004). Spector (1997) highlighted the fact that it is the perception of situational variables (e.g., job quality) that can result in counterproductivity; subsequent studies (e.g., (Fox & Spector, 1999) suggest that this may be through affective reactions, examples of which are dissatisfaction or frustration. For the former, relationships are largest and most significant for CWBs targeted at the organization rather than other persons (Chen & Spector, 1992; Duffy, Ganster & Shaw, 1998; Fox & Spector, 1999; Goh, Bruursema, Fox, & Spector, 2003; Kelloway, Loughlin, Barling & Nault, 2002). Furthermore, both job satisfaction (Hollinger & Clark, 1982a) and frustration (e.g., Spector, 1978; Spector & Fox, 2005) have been linked to counterproductive behaviors for many years. Such negative affective reactions to the job (e.g., dissatisfaction) may result in higher occurrences of minor offenses (e.g., low intensity CWBs), as opposed to severe offenses (e.g., violence) (Bolin & Heatherly, 2001). This is highly likely for young workers, in light of their relatively short tenure in the workforce and limited scope of authority.

Overall, CWBs cost organizations over $200 billion annually and have been attributed to 30% of all business failures (Murphy, 1993). Due to the sectors in which most young workers are employed (e.g., retail, food service), the prevalence of CWBs is worthy of investigation. In one of the few studies of deviance in young workers, Ruggiero and colleagues (1982) found the following counterproductive acts occurred "several times" or "often" in a sample of young workers: calling in sick when not sick (32.2%), giving away goods/service for nothing or for less than market price (29.9%), and taking things from the employer or from coworkers (18.3%). These researchers note that these results did not take into account opportunity to engage in counterproductive behaviors (e.g., norms) or deterrents to CWBs (e.g., surveillance systems), so these estimates may be conservative. To clarify, an individual who works outside the retail sector may not have a chance to "purposely shortchange a customer".

Whether this is a function of the jobs themselves or the individuals holding the jobs remains to be shown. Of the antecedents for CWBs, poor environmental conditions, negative social environment and opportunity for theft emerged as consistent precipitating factors. This supports the notion that quality of the work domain relates to counterproductive work behaviors. In accordance with Duffy, O'Leary-Kelly, and Ganster's (2003) suggestion to recognize differences among forms of CWBs, three categories of low-intensity behaviors was incorporated into this study as outcomes: withdrawal, production deviance and theft.

Withdrawal Behaviors

Like adult workers, employed youth may engage in many forms of deviant acts at work (Ruggiero, Greenberger & Steinberg, 1982). Unlike adult workers, the positions that young workers occupy may limit their CWBs to relatively low-intensity behaviors, such as withdrawal. Hulin (1991) defined CWBs as a group of behaviors enacted by employees in order to avoid or

withdraw from the dissatisfying work situation. Withdrawal can range from quitting one's job to taking longer breaks than authorized (Spector et al, 2005). One study of supermarket employees found that 29% of employees had abused sick days and another 20% had come to work "hung over" (London House & Food Marketing Institute, 1995). Clearly, this can affect the organization's bottom line through reduced efficiency and productivity.

Withdrawal behaviors are important to consider in relation to employed college students, because low-intensity CWBs may be one of the few methods young workers have to react to suboptimal working conditions. The fact that young workers change jobs frequently (Kerckhoff, 2002), sometimes in response to dissatisfaction with their current jobs, supports the notion that job withdrawal may be quite problematic for organizations that employ this population of workers (Department of Economic and Social Affairs, 2004). Hanisch and Hulin (1991) found that quality of work had direct causal links to withdrawal behaviors; job importance, satisfaction with coworkers and satisfaction with work have been shown to have significant structural paths to job withdrawal. Moreover, studies have linked absenteeism to job dissatisfaction with job content (Hackett & Guion, 1985; Scott & Taylor, 1985).

The relationship between affective responses to the job and withdrawal may be explained by the quality of the jobs available to young workers. A highly routinized, non-autonomous work environment that has little opportunity for involvement may result in alienated workers (Kanungo & Mendonca, 2002). Such a situation is likely to constantly frustrate the young worker's need for autonomy and control, thus resulting in a feeling of powerlessness (Kanungo, 1982) and low organizational commitment (Dessler, 1999). Counterproductivity may be a way to relieve feelings of powerlessness (Klein, Leong, & Silva, 1996; Rentsch & Steel, 1998; Sprouse, 1992). In fact, frustration has been associated with extreme withdrawal

behaviors, such as intent to quit (Spector, 1997b) and turnover (O'Connor, Peters, Pooyan, Weekley, Frank, & Erenkrantz, 1984). Hulin (1991) suggested that withdrawal may be a way of adapting to unfavorable job attitudes.

Production Deviance

Although employees are physically present at work, they may not be contributing to organizational or job-related goals (e.g., surfing the internet, sloppy work). The term production deviance characterizes these phenomena as "willful restriction of production or performance that is normally required by the job" (Murphy, 1993, p. 15). This captures a motivational component that may result from low work quality and has been linked to job satisfaction (Hollinger & Clark, 1982b, 1983). These behaviors are typically motivated by the desire to avoid work tasks, while maintaining membership in the organization, and they are more common in low-paying, low-status occupations (Hollinger & Clark, 1983).

Production deviance is particularly salient for college students, who may need financial support for school and living expenses but are not necessarily invested in their respective jobs. Research has demonstrated that younger employees report significantly higher levels of production deviance (Hollinger & Clark, 1983). This may be because young workers in low-quality jobs have been shown to exhibit less motivation to do good work, when compared to their counterparts in high quality jobs (Stern, et al., 1990). Results from previous studies of adults show that the decision to engage in production deviance is partly based on perceptions of job importance, job satisfaction, and attitudes toward jobs (Hanisch & Hulin, 1990).

Recently, the notion that employees withhold effort in organizations has received increasing empirical scrutiny (e.g., Kidwell & Bennett, 1993; Kidwell & Robie, 2003). Although the concept of production deviance is not new, termed social loafing, shirking, and job neglect in

other literatures, the application of it to individuals embedded in organizations is gaining momentum. Each of these components of production deviance is important to consider when examining withholding effort. These three phenomena are related, though not interchangeable constructs that characterize the production deviance dimension (Kidwell & Robie, 2003).

Social loafing refers to individuals in groups lowering their efforts toward a group task (Karau & Williams, 1993), when compared to their individual performance on the same task. This may or may not be perceived by others (Mulvey & Klein, 1998), but it has been associated with several factors that pertain to the jobs typically held by young workers. Shirking is the individual-level counterpart to social loafing, occurring when employees fail to give their full efforts to job tasks (Albanese & Van Fleet, 1985) because they believe that they can create more "leisure time" without negative consequences (Bennett & Naumann, 2005). Although some theorists have suggested that highly autonomous jobs may permit shirking behaviors (e.g., Allen & Greenberg, 1980), most agree that such withdrawal behaviors are more likely indicative of the desire for more job autonomy (Analoui & Kakabadse, 1992). Judge and Chandler (1996) suggest that reduction of effort may occur when employees' interests do not match those of the organization. Job neglect is a particular type of shirking behavior that refers to individual withdrawal from job duties (Leck & Saunders, 1992) in favor of a focus on nonwork interests (Bennett & Naumann, 2005). This can manifest through passively allowing work conditions to decline through reduced effort or interest (Leck & Saunders, 1992). Job neglect is negatively related to job satisfaction, and may be an alternative to quitting (Kidwell & Bennett, 2001). Specifically, those who feel that it may be too costly to voice their dissatisfaction with job qualities may engage in job neglect behaviors. This easily translates to the young workforce, who

often endures less than optimal working conditions in order to accommodate their school schedules.

Theft

Employee theft is defined as "any unauthorized appropriation of company property by employees either for one's own use or for sale to another. It includes but is not limited to, the removal of products, supplies, materials, funds, data, information, or intellectual property" (Greenberg, 1995, p. 154). Theft is a "combination of attitude and act", yet organizations appear most concerned with elimination of the act, rather than changing the subsequent attitude (Vardi & Weitz, 2004, p. 98). The sectors in which young workers are employed (e.g., retail, food service) are those that traditionally report problems with employee theft (Ruggiero, Greenberger & Steinberg, 1982). For instance, estimates of employee theft in such industries range from 41% (9 month tenure; Ruggiero & Greenberger, 1982) to 60% (within the last 6 months; Hollinger, Slora, & Terris, 1992). Moreover, one survey of hourly workers in the restaurant industry reported that 21% of respondents observed coworkers stealing cash and did not report the incident (Berta, 2003). A recent study of the retail sector in the United States has found that the ratio of employees caught stealing is 1 in 22.5 (Towler, 2001). In their notable book on employee theft, Hollinger and Clark (1983) found a correlation of -.26 between age and theft in the retail sector alone. These authors posit that this may be due to many factors, such as development, lower commitment, or lower risk level due to the part-time nature of the employment. Nonetheless, theft by young employees is a pervasive problem for organizations.

Theft can range in severity, from stealing expensive items to smaller unauthorized acts, such as consuming food or beverages (Vardi & Weitz, 2004). Young workers who engage in counterproductive behaviors may not "specialize" in one particular type of behavior. Ruggiero,

Greenberger & Steinberg (1982) found that half of the young workers who had previously engaged in theft more than once had also committed two different counterproductive acts; an additional 25% had engaged in three or more different counterproductive acts. This may be due to the fact that younger workers have a different view of the organization than older employees (Murphy, 1993). Research on young workers has centered on demographic factors and attitudes toward working in general (Ruggiero, Greenberger, & Steinberg, 1982).

Many studies of employee theft have focused on predicting who is likely to steal, using integrity tests as predictive instruments (for a review, see Sackett, Burris, & Callahan, 1989), yet the sectors in which many students are employed may be far less selective, due to the high turnover rates. Demographic theories of theft stem from the notion that the likelihood of theft is linked to age, lack of experience, and marginal (e.g., part-time) employment (Hollinger, Slora, & Terris, 1992; Murphy, 1993). Among the antecedents that have received empirical support for theft are: norms for deviant behavior (Greenberg, 1998), "theft proneness" (Ash, 1991), justice (Greenberg & Scott, 1996), and unethical leadership (Wolfe, 1988). In addition, job dissatisfaction has been noted as one of the most important, yet least understood antecedent of employee theft (Merriam, 1974; Murphy, 1993).

Introduction to Affective Reactions

Examination of affective experiences is paramount when studying organizational counterproductivity (Brief & Weiss, 2002). Occupational stress is typically linked to unpleasant affective states resulting from interpretation of the work environment (Hart & Cooper, 2003; Kyriacau & Sutcliffe, 1978). The stressor-emotion model (Spector, 2005) proposes that stressful working conditions can lead to negative affective reactions to one's job. In turn, these reactions can affect the propensity to engage in counterproductive work behaviors. Job satisfaction has

been characterized as an affective reaction to one's job (Brief & Weiss, 2002; Locke, 1976), and frustration has been described as a negative emotional reaction to a blocked goal (Dollard, Doob, Miller, Mowrer & Sears, 1939). Furthermore, both of these constructs have been linked to counterproductive work behaviors (e.g., Fox & Spector, 1999; Hollinger & Clark, 1982, 1983; Hollinger, Slora, & Terris, 1992). Job satisfaction and frustration were explored as mediators in the relationship between job quality and counterproductive work behaviors.

Job Satisfaction

The most widely studied organizational construct is job satisfaction (Spector, 1997a), yet this has been largely ignored in the youth employment literature. This omission may be attributed to the lack of clarity regarding youth employment, in general. In other words, *what factors facilitate job satisfaction in young workers, and what are the consequences of low satisfaction?* Studies of adult populations suggest that age may be related to job satisfaction in either a linear (e.g., Brush, Moch, & Pooyan, 1987) or curvilinear (Zeitz, 1990) fashion. Theoretically, in either conception, young workers should fall at the lowest satisfaction range.

Although studies have shown that satisfaction with the work itself (e.g., job quality) predicts performance, absenteeism and turnover (for a review see Johns, 2003), it is less clear as to how these factors influence young workers. Both objective and subjective measures of work characteristics have been linked to job satisfaction (e.g., Glick, Jenkins, & Gupta, 1986) in adult samples, yet neither form has been applied to a youth sample. It is intuitively appealing to posit that higher work quality should lead to higher levels of job satisfaction for young adults. Studies using adult participants have found that "high quality" variables, such as autonomy, are linked to higher work motivation and performance, as well as job satisfaction and mental health; moreover, job satisfaction has been associated with decreased turnover (Wall, Corbett, Martin,

Clegg, & Jackson, 1990; Wall & Clegg, 1981). In addition, mentoring has been associated with higher levels of job satisfaction and career commitment (Fagenson, 1989). These results suggest that investigation of job satisfaction in a younger population may be worthwhile in order to best assist young workers in occupational decisions and optimal career advancement.

Because job satisfaction is linked to constructs that impact organizational retention, such as commitment, intentions to search, and turnover (Tett & Meyer, 1993), comprehending young workers' job satisfaction may greatly assist organizations who typically employ this demographic (e.g., retail, food service). Large scale studies show that young workers are less likely to recognize and object to bad working conditions, due to their inexperience in the workforce. When they do recognize poor working conditions and experience dissatisfaction, they may be more likely to change jobs, contributing to high turnover rates in youth dominated work sectors (Department of Economic and Social Affairs, 2004; Kerckhoff, 2002). Studies of adult workers show that dissatisfaction with one's job can lead to higher likelihood of engaging in counterproductive behaviors such as quitting, disengaging or retaliation (Rosse & Saturday, 2004). An investigation of job-related factors that result in low job satisfaction has not been conducted extensively in a college population. In conjunction with previous findings, it follows that the propensity to engage in counterproductive work behaviors may be linked to job satisfaction.

Hypothesis 1: Job satisfaction will be negatively related to counterproductive work behaviors.

Frustration

Frustration is typically defined as the blockage or interference with attainment or maintenance of a desired goal (e.g., Ortony, Clore, & Collins, 1988; Ortony & Turner, 1990;

Roseman, 1984; Spector, 1997b). Such a goal can be long- or short-term; however, the key component is that the individual must perceive goal interference in order to experience the negative emotional state of frustration. For example, frustration may result from behaviors that interfere with the employee's ability to accomplish his or her work tasks (Peters & O'Connor, 1980). Such perceived frustration is not only related to job dissatisfaction, but also to turnover (Spector, 1978) and CWBs (Storms & Spector, 1987). This highlights the importance of measuring perceptions and individual differences in relation to the experience (or lack thereof) of frustration.

To clarify, the closer one is to his or her goal, the more frustration experienced if this goal is blocked (Dollard, et al., 1939). Whether the goal is accomplishing job tasks, working in an enjoyable atmosphere, or learning from the job remains to be determined in a sample of employed youth. However, a poor work environment, lack of job-related information, and help from others are stressful factors that may elicit frustration in working adults (Peters & O'Connor, 1980). Spector (1978) posited that perceived frustration at work is linked to the following behaviors: search for alternative methods of goal attainment, aggression targeted at the organization and withdrawal from the situation.

Characteristics that result in frustration are called *frustrators,* and job stressors can fall under this rubric (Keenan & Newton, 1984; Spector, 1997b). For instance, autonomy and job satisfaction have been negatively associated with frustration, while organizational constraints and intent to quit have been positively associated with this construct (Spector, 1997b). The number of frustrating stimuli that are experienced within a particular time frame affects the severity of the reactions to such events. Thus, employees who regularly experience frustrators may be more likely to engage in counterproductivity. Organizational frustration has been linked

CWBs, particularly when the cause of the frustration is seen as unwarranted or unfair (Folger & Cropanzano, 1998).

Together, these findings apply directly to young employees work experiences. A college population fits well into this framework, because students are progressing toward their career-related goals. Presuming this group of workers is employed in low-quality jobs, they may become frustrated with the lack of opportunities to transfer the knowledge, skills and abilities that they are currently attaining in college to their jobs. In other words, their goal of utilizing the valuable skills they are learning in college may be blocked by the low quality of their current jobs, thus eliciting some level of frustration. Consideration of these factors may help define conditions that precipitate negative organizational outcomes for those industries that traditionally employ young workers. Following previous research findings, it was expected that like job satisfaction, frustration would lead to counterproductivity.

Hypothesis 2: Frustration will be positively related to counterproductive work behaviors.

Introduction to Work Quality

"The quality of young people's jobs is necessarily tied to the quality of jobs available in society as a whole", yet considering education, work experience and acquisition of job-related skills are inversely related to age, "young workers tend to hold a disproportionate number of society's least attractive jobs" (Loughlin & Barling, 1999, p. 17). The National Institute for Occupational Safety and Health (NIOSH) lists young workers as a priority research area on the National Occupational Research Agenda (NORA), yet the area of work quality has been given little empirical scrutiny for this demographic (Greenberger, Steinberg & Ruggiero, 1982). Greenberger and Steinberg (1986) posit that the quality of adolescents' working experiences can have a multitude of effects. These experiences may strengthen their link to the adult workforce

by providing strong examples and role models, teach very little about work at all, and/or foster negative attitudes such as cynicism toward work in general that cloud the youth's view of future employment. Researchers have not come to a consensus about what causes differences among these outcomes, such that early work experiences can motivate youth.

Although previous research on the youth workforce has indicated that *quality* of employment is paramount, little detail is understood about the quality of youth work (Loughlin & Lang, 2005; Stone & Mortimer, 1998). In addition, the definition of work quality is inconsistent from study to study, so comparisons among studies are tentative at best. A multitude of models of job quality exist, primarily for adult populations, but few have been tested in more than a single study. Models of adult work are intuitively appealing for application to young workers; however, it is important to note that what constitutes a high-quality job for an adult employee (e.g., benefits) may not be the same as that for a young employee (Mortimer & Finch, 1996). Stone and Mortimer (1998) suggest that jobs of higher quality utilize the youth's skills, provide opportunities for learning and interaction with people. High quality employment may also reduce the negative effects of youth work (Barling & Kelloway, 1999). For instance, low quality jobs, in combination with long working hours have been linked to negative outcomes (Barling, Rogers & Kelloway, 1995).

Youth work is multidimensional, and two conceptual frameworks are important to note in studying the quality of youth employment. The first was established by researchers from the National Institute for Occupational Safety and Health (Sauter, Murphy & Hurrell, 1990) and has been applied extensively to adults. This model outlines six dimensions of work quality likely to influence worker health: work content, interpersonal relationships, role stressors, work scheduling, autonomy and career security. Due to the transitory nature of youth employment,

some of these factors (e.g., career security) may not be applicable to this age group (Loughlin & Barling, 1999). Further, this model has received limited support for young workers (Greenberger & Steinberg, 1986). The second framework, created for use with young workers, overlaps greatly with the NIOSH model. Originally, Greenberger, Steinberg and Ruggiero (1982) proposed three dimensions for assessing quality of youth work: opportunities for learning or skill use, social interaction, and exercising initiative or autonomy. These three dimensions were later expanded to encompass six complementary, interrelated factors: autonomy, social connectedness, learning and mastery, occupational development, identity clarification, and adult mentoring (Greenberger & Steinberg, 1986). For purposes of the proposed study, the focus will center on constructs from the latter model.

Work-related stressors have been directly and indirectly linked to CWBs through gradual intensification of negative emotions (for a review see Giacalone & Greenberg, 1997). This coincides with overarching premise of the stressor-emotion model, and each job quality dimension was operationalized as an antecedent to affective reactions, and in turn to CWBs. A review of each quality dimension follows.

Autonomy

Autonomy refers to the level of discretion jobholders are allowed to exercise on the job (Parker & Wall, 1998). Central to this concept is the capacity to be self-governing and exist independently (Greenberger & Steinberg, 1986), a skill that college students may be developing as they enter and proceed through college. Job design theorists (e.g., Hackman & Oldham, 1980) and youth employment researchers (e.g., Greenberger & Steinberg, 1986) advocate that jobs should promote growth in autonomy, but the degree of autonomy must coincide with the capabilities of the employee. Loughlin and Lang (2005) support the notion that autonomy is

particularly important for employed youth and is significantly associated with students' motivation to do good work (Stern, Stone, Hopkins & McMillian, 1990). Increased autonomy has also been shown to influence interns' attitudes toward their internship experiences, such that they gain more from experiences with more autonomy (Brooks, Cornelius, Greenfield, & Joseph, 1995). The three interrelated dimensions of autonomy, freedom in work scheduling, decision-making, and work methods (Wall, Jackson, & Mullarkey, 1995), may prove useful in studying working college students.

Examination of autonomy in youth workers has been referenced by several researchers (e.g., Loughlin & Barling, 1999) as an area ripe for future research; however, the benefits of increased autonomy may be limited by the types of jobs that young workers typically hold. These jobs are frequently characterized by low autonomy (Garson, 1985) and may be difficult to change. Many youth are employed in the fast-food industry, a sector which is known for high regulation and routinization of job functions (Leidner, 1993; Reiter, 1991). The type of work typically done by teenagers is frequently described as "monotonous" and "isolating", due to the jobs open to this age group (Garson, 1988; Loughlin & Barling, 1998). Jobs available to youth typically provide less in terms of independence than adult jobs (Lewis, Stone, Shipley, & Madzar, 1998), which creates a paradox: *how do young workers gain autonomy in non-autonomous jobs* (Barling & Kelloway, 1999).

If young workers are to benefit from job-related independence, it is imperative that they are given the opportunity to gain and exercise this autonomy in their respective work settings. Moreover, theorists suggest that enrichment of employees' jobs through heightened autonomy may prove useful in combating CWBs such as theft (e.g., Giacalone & Greenberg, 1997). Given the level of education and autonomy characteristic of college students, jobs with low autonomy

have the potential to elicit negative affective reactions. For instance, overall autonomy has been linked to job satisfaction in a college student population (.43; Morgeson & Humphrey, 2003). Since counterproductive behaviors may be a vehicle through which to exert autonomy in a non-autonomous situation (Klein, Leong, & Silva, 1996; Rentsch & Steel, 1998; Sprouse, 1992), clarification of how college students can achieve more autonomous jobs is warranted to determine ways to combat this problem. Examining the influence of autonomy on affective reactions and CWBs may help elucidate this issue.

Social Connectedness

Youth employment is considered one of the four socializing forces that children encounter in their lifetime, following family, school and development of peer relationships (Greenberger & Steinberg, 1986). The experiences that foster autonomy are similar to those that promote social connectedness (Greenberger & Steinberg, 1986). Paid work is central to the process of social integration (Department of Economic & Social Affairs, 2004), and it is much to the young worker's advantage to be connected to others in the workplace, for purposes of mutual aid and information exchange (Granovetter, 1974; Lin, Ensel & Vaughn, 1981). Some researchers have gone so far as to suggest that these connections may compensate for the negative effects of a stressful workplace (Thoits, 1995).

Sauter and colleagues (1990) suggest that interpersonal relationships at work are a primary determinant of perceived work quality. Interpersonal relationships may serve as a means of social support and growth; this has been linked to job satisfaction in a sample of young workers (Morgeson & Humphrey, 2003). Poor work relationships have been linked to job dissatisfaction and negative mental health outcomes, such as depression (Karasek, Schwartz, & Theorell, 1982). The developmental literature suggests that young workers are able to see their

progression to adulthood as they take on responsibilities, by knowing that others depend on them for the smooth functioning of a collective unit (Shanahan, Mortimer & Kruger, 2002). Establishment of relationships with others is crucial for this development. Not surprisingly, contact with people has been linked to working students' motivation to do good work (Stern, et al., 1990). In fact, positive work experiences have been linked to closer relationships with coworkers (Mortimer & Shanahan, 1991).

The workplace may not be a place where young workers experience close relationships, because the types of jobs they occupy often require them to work in isolation, under time pressures or at non-standard times (Greenberger & Steinberg, 1986; Greenberger, Steinberg, Vaux, & McAuliffe, 1980). Isolation, coupled with mundane jobs, may give employees an opportunity to engage in unnoticed counterproductive behaviors (e.g., sharing their 'employee discount' with friends). For instance, Klein and colleagues (1996) suggested that counterproductivity may be the result of employees attempting to make their jobs more interesting.

Not all jobs available to young employees place them in isolation. When working with others, young workers are more likely to work alongside employees their own age than with adults (Greenberger & Steinberg, 1986). In point of fact, 60% of American teenagers' jobs are in the retail and service sectors (Steinberg, et al., 1993), where they are primarily socialized in the workplace by their peers (Greenberger & Steinberg, 1986). This finding stands in stark contrast to past generations, in which the majority of youth jobs (e.g., skilled trades, factory work, and farm-work) had clear adult counterparts (Greenberger & Steinberg, 1986). While working with others may be seen as a positive experience, it may also provide justification for counterproductive behaviors (e.g., "everyone is doing it") by creating a common value system

that views such behaviors as within acceptable limits (Sackett & DeVore, 2002). In order to comprehend how young employees are affected by social relationships at work, investigation of social connectedness is warranted. It is plausible that determining the role that social connectedness plays in influencing job related affect may help reduce organizational counterproductivity.

Learning and Mastery

One of the purported advantages of youth employment is the learning and mastery of useful skills and information (Csikszentmihalyi & Schneider, 2000; Greenberger & Steinberg, 1986). For working college students, challenging skills (e.g., problem solving) have been positively linked to job satisfaction, whereas task simplicity has been negatively related to this construct (Morgeson & Humphrey, 2003). Workers who are highly invested in the job are more likely to say that they sought their jobs because they wanted to learn new skills (Greenberger & Steinberg, 1986). This has immense motivational implications; young workers may become more engaged in and thus less frustrated by their work when they are gaining meaning from it (Campion & McClelland, 1993). In one large-scale longitudinal study, Mortimer and colleagues found that teenagers who perceived that the skills provided by their jobs would be helpful in future endeavors exhibited psychological benefits, such as higher self-esteem and less depressive affect (Mortimer, Finch, Shanahan & Ryu, 1992). Young employees in the same study experienced lower self-esteem and well-being when they perceived little benefit from skills required by their jobs.

The benefits of learning and mastering new skills is most marked when the new skills can be applied in the future (Loughlin & Lang; Mortimer, et al, 1991). Young workers may gain seemingly mundane skills, such as time management, interpersonal relations, and cooperation,

which can assist them in other domains (Greenberger & Steinberg, 1986; Mortimer & Finch, 1996). These skills are vital in integrating young workers into the adult workforce. Youth benefit most when skills learned on the job benefit them at school and visa versa; skills that are easily transferred between school and work can help students in both settings (Mortimer, 2003).

Unfortunately, this is rarely the case. For example, studies show that the average adolescent food service worker only spends about one minute of every hour on the job using school-taught skills (Greenberger & Steinberg, 1986). Survey results show that four out of five employees in this industry report involvement in some form of counterproductive behavior against the organization (Hollinger, Slora, & Terris, 1992). Considering the fact that this industry is largely comprised of young, inexperienced part-time employees, it is plausible to link the lack of opportunity for learning and mastery to counterproductivity in this sample. Lack of opportunities for work-related learning and mastery may lead to qualitatively uninteresting jobs, as well as cynicism toward work (Stern, et al., 1990). While interesting jobs have an intuitive appeal, they also have important organizational implications. Therefore, it may be prudent for organizations to consider the qualitative benefits that youth are receiving from their jobs in order to impact organizational productivity.

Occupational Development

The extent to which employees perceive value or strain in their early working endeavors may strongly influence the development of their work-related competency and attitudes toward work in general (Mortimer, 2003). It is this initial exposure to the occupational world that prompts young workers to begin considering future job-related goals, values, and preferences (Mortimer & Johnson, 1999). Acquisition of information and experience related to personal interests and ability levels is vital, so that young workers can make an educated decision

regarding their occupational future (Greenberger & Steinberg, 1986). The process of investigating future career options has been termed vocational exploratory behavior; this can be mental or physical, conscious or unconscious, direct or indirect (Jordaan, 1963). Ideally, these experiences are positive, but even bad work experiences are important. "Negative learning" serves to help young workers learn what they do not want or cannot do well in a future job situation (Mortimer, 2003).

Quality of work is directly linked to the career development of students (Brooks, et al., 1995). Whether positive or negative, the information young workers extract from their jobs influences their future job attitudes and preferences (Mortimer & Finch, 1996). Theoretically, jobs should advance youngsters' occupational development, yet the labor market is such that there is a "structural mismatch" between individuals' prior training and labor market opportunities (Greenberger & Steinberg, 1986). Part of this is due to the rapid changes in the labor market, a process that "no longer permits individuals to anticipate with certainty an opening two or more years in the future" (Greenberger & Steinberg, 1986, p. 57). Thus, the view that jobs prepare individuals for future employment may not be as accurate as it was around the turn of the century. In fact, adolescent employment has become discontinuous, such that young workers often are employed in sectors that they do not pursue in the future (Greenberger & Steinberg, 1986). For many young workers, jobs are essentially a temporary means to earn money.

Some nations (e.g., Germany) offer strong vocational education programs that are closely linked to secondary education programs; such programs combine education with apprenticeships to provide youth with specific skills for future employment in a particular field (Witte & Kalleberg, 1994). College education can be viewed as a means to provide skills to young

workers, through internships and employment, yet the extent to which college students are able to extend skills from the classroom to the job is unclear. Although the majority of high school students work at some point, the number of those who have jobs that are specifically tied to school curricula is quite low (Greenberger & Steinberg, 1986; Stern, Finkelstein, Stone, Latting, & Dornsife, 1995). Students' motivation to work is linked to the provision of job-related information through school, the opportunity to use this information, and reinforcement of these efforts on the job through school (Stern, et al., 1990). Lack thereof could generate negative affective reactions. This relates to attainment of learning and mastery, and it is likely to affect young workers in a similar manner.

Identity Clarification

Identity clarification allows the young worker to establish his or her place in the world, which in turn, facilitates participation in the types of work and social relations valued by society (Greenberger & Steinberg, 1986). Barling (1990) compared the process by which early workplace experiences influence work-related attitudes, values and behaviors, to the formation of personalities by early childhood experiences. Young adulthood is an "exploratory stage" in which vocational preferences are generated and solidified, and occupational choices are made that influence one's self-concept (Super, 1990). Youth is a period of growth to adulthood, where identity formation is critical. For most employed youth, jobs are not only a source of income, but also a source of self-respect and value formation (Department of Economic & Social Affairs, 2004). This may be especially salient during the college years, because a primary purpose of collegiate education is to provide the foundation for a promising career.

As young workers develop their sense of workplace identity through work experiences, they become better able to differentiate between jobs that they like and jobs that they dislike.

This helps direct young employees toward certain fields and away from others. Most youth seek jobs that are interesting and give them a sense of accomplishment (Bibby, 2001); when job tasks are completed successfully, they likely experience "performance accomplishment" (Bandura, 1977; 1986). This occurs as they receive a sense of competence attributed to the work environment (Mortimer, 2003), and it is likely that this results in positive affective reactions. It is important to note that the magnitude of such accomplishments may be different in accordance with the individual's interpretation of the workplace; thus the process of identity formation may be different for each individual. For instance, some individuals may perceive a highly autonomous job as a positive challenge, while another may see it as an overwhelmingly stressful experience (Mortimer, 2003). This may also be a function of the learning and development process.

Although critics of youth work warn that working may result in young workers taking on adult responsibilities without adequately developed coping skills, jobs may provide a way for youth to experiment with various roles. Since young workers may not be fully developed in terms of attitudes, beliefs, and skills, they can benefit greatly from integration of experience to assist in this identity clarification (Greenberger & Steinberg, 1986). Internships and other forms of work experience that are linked to education may foster higher crystallization of self-concept in work and school domains (Brooks, et al., 1995; Jordaan, 1963). College students, as compared to high school students, may be in a better position to develop a stronger work identity. Opportunities like internships can let the young worker attempt job functions that are related to his desired occupational field, thus assisting him in further developing his occupational identity. When young workers are given passive roles, in which they are not allowed to make decisions, they may not develop the sense of competence needed for identity clarification (Call, 1996). The

more the internship resembles the actual job (e.g., in terms of autonomy), the better informed the employee was in setting future career goals. Jobs that allow identity clarification to occur may be more likely to foster more sound career-related decisions. Thus, if young employees are able to clarify their work-related identities, they may be less likely to experience negative affective reactions to the job. This may decrease their engagement in CWBs.

Adult Mentoring

One of the strongest arguments for youth employment stems from the notion that jobs will bring young workers into contact with adults who can "foster meaningful intergenerational relationships" (Greenberger & Steinberg, 1986, p. 52). This mentoring process is defined as an interpersonal relationship between an experienced employee (mentor) and a less experienced, junior, individual (protégé) in which the mentor provides guidance to the protégé (Kram, 1985). The mentor may provide one of two types of support: career-related support or psychosocial support. The former refers to career development and the latter refers to social bonds between the mentor and protégé. Although mentorships can be formal or informal, protégés involved in informal mentorships may benefit more than those in formal or nonmentored relationships (Chao, Walz, & Gardner, 1992). Likewise, individuals in informal mentorships have been shown to receive more psychosocial and career-related functions than those in formal mentorships. This may be due to the fact that informal relationships were more frequently based on similarities in interests, goals or personalities. Since the amount of vocational, rather than personal mentoring, during the initial months on the job is associated with greater career success in the same organization, it is important to investigate this form of mentoring (Orpen, 1995).

While some argue that the jobs available to young workers "pigeon hole" them into positions in which they are surrounded by only their peers (e.g., Greenberger & Steinberg, 1986),

others suggest that young workers have frequent contact with adult coworkers (e.g., Mortimer & Finch, 1996). Proponents of the former perspective suggest that young workers may be pushed into a "pseudo maturity" through their association with older individuals. On the contrary, advocates of the latter perspective suggest that working with adults has many positive consequences, such as promoting a sense of contribution, maturity, and social equality, through clarification of work values and future job preferences (Mortimer & Finch, 1996). Mentoring has a positive correlation with career commitment, and a negative relationship with various counterproductive behaviors (Applebaum, Ritchie & Shapiro, 1994). This pattern is dependent on the type of job, the type of adults in positions of authority, and the individual worker. Hollinger (1986) suggested that the more attached an employee is to a non-deviant counterpart in the organization, the less likely the employee is to engage in counterproductive behaviors. Ideally, mentors who provide positive models of work behavior may help young workers develop adaptive work-related functioning.

Negative experiences with adults in the workplace may separate members of these groups, such that younger workers are segregated into a separate cohort; some argue that this is the plight of the teenage worker (Greenberger & Steinberg, 1986). Conflict with a mentor could be detrimental to a young worker who is still developing attitudes toward work. Frone (2000) found support for this with a study of interpersonal conflict, finding conflict with one's supervisor was negatively related to job satisfaction and positively related to intentions to quit. This suggests that when adults do not provide positive mentoring relationships for young employees, negative job-related consequences may result.

Work Intensity

Work intensity is widely used as a way to estimate the effects of work on aspects of the youth's education and mental health (e.g., Greenberger & Steinberg, 1986; Mortimer et al, 1992). Researchers (e.g., Mortimer, Finch, Ryu, Shanahan, & Call, 1996; Steinberg & Dornbusch, 1991) typically define work intensity as hours of work per week, with 20 hours serving as the point at which employment contributes to negative outcomes, such as interference with schoolwork and personal functioning (Bachman & Schulenberg, 1993; Steinberg, Fegley, & Dornbusch, 1993). Work intensity has been associated with lower grade point averages and time spent on homework, as well as increased school absenteeism and delinquent behavior (D'Amico, 1984; Lillydahl, 1990; Steinberg & Dornbusch, 1991). Interestingly, research on work intensity has been limited to the economic, developmental and clinical fields. Empirical examination of work intensity from an occupational perspective is sparse.

Work hours are important to consider in the study of youth employment, but focusing only on *quantitative* work intensity neglects effects associated with the *qualitative* intensity of work. To clarify, qualitative work intensity takes into account the difficulty of work and the effort required to accomplish job tasks, whereas quantitative work intensity only measures time spent at work. Due to the frequent movement of young workers in and out of the labor force, reliance on hours of work may not accurately capture their investment in work (Mortimer, 2003). This supports the premise that the jobs occupied by youth are not the types of jobs that they will have as adults (Loughlin & Barling, 1999). While this point is arguable (e.g., Krahn, 1991), it is important to note that hours of work are affected by many factors. Quantitative work intensity does not take into account the physical and mental efforts (or lack thereof) put forth by employees. Some employees may work few hours, but these hours may be physically or mentally

intense, while other employees may work long hours on a job that requires little effort. Thus, taking *qualitative* work intensity into account along with work hours may elucidate this area of research. For purposes of the present study, both qualitative and quantitative work intensity are measured.

The present study rests on the assumption that lack of job quality may create a suboptimal working environment. Together, the aforementioned findings suggest that perceptions of job quality are related to CWBs against the organization. Further, evidence suggests that affective reactions (job satisfaction, frustration) may be the mechanism through which job quality elicits various forms of CWBs. To clarify, the effects of work quality on CWBs may be stronger with the inclusion of job satisfaction and frustration. Thus, it was reasonable to extend these findings to a sample of employed college students, as follows:

Hypothesis 3a: The relationship between self reported work quality and CWBs will be partially mediated by job satisfaction. Low work quality will lead to low job satisfaction, which will lead to CWBs.

Hypothesis 3b: The relationship between self reported work quality and CWBs will be partially mediated by frustration. Low work quality will lead to high frustration, which will lead to CWBs.

Sole reliance on self reports of stressors have been both supported (e.g., Perrewe & Zellars, 1999) and criticized (Schaubroeck, 1999) by stress researchers. Theorists typically advocate use of non self report measures in conjunction with self report measures to gain a better perspective of the issue of focus (e.g., Schaubroeck, 1999). This is particularly salient for young workers, because little research exists in this area. Thus, to be conservative each of the aforementioned hypotheses should be explored using both self-report data and non self-report

sources of job related information. For purposes of the present study, the Occupational Information Network (O*Net) was used to provide a more objective assessment of job quality. This procedure has been used in other studies to gain non self report job information (e.g., Liu, Spector & Jex, 2005). Although slight differences in relationships among job quality dimensions and outcomes are expected due to the lack of personal information available on O*Net, it is expected that the magnitude of relationships should reflect similar underlying constructs.

Control variables

Counterproductive work behaviors have been conceptualized as behavioral reactions to affective responses, and these may be particularly susceptible to dispositional influences (Bennett & Robinson, 2003; Duffy, O'Leary-Kelly, & Ganster, 2003; Robinson & Greenberg, 1998). Two such variables, conscientiousness and emotional stability, were controlled in this study. These personality dimensions have been shown to consistently predict job performance (e.g., Barrick & Mount, 1991; Judge & Illies, 2002), as well as outcomes beyond the typical performance criterion, such as CWBs and withdrawal (e.g., Barrick & Mount, 1996; DeMatteo, White, Teplitzky, & Sachs, 1991). Furthermore, these two constructs have been linked to work-related attitudes in several studies (e.g., Judge, Heller & Mount, 2002). In addition to individual differences, the opportunity to engage in counterproductive behaviors is important to address; thus, surveillance was included as another control variable. Each of these components was taken into account in this study.

Conscientiousness

Conscientiousness is a dispositional characteristic that describes an individual who is dutiful, dedicated, and thorough (Costa & McCrae, 1989). Conscientiousness employees are "achievement oriented, hard working, dependable, persistent, responsible, organized, careful and

reliable" (Barrick & Mount, 2000, p. 16). This personality domain has been heralded as an essential motivational trait variable (Schmidt & Hunter, 1992), and it has been linked to CWBs against the organization (Lee, Ashton, & Shin, 2005). Conscientious individuals are less likely to engage in counterproductive behaviors because they tend to abide by the rules (Barrick & Mount, 2000). Conscientious employees tend to engage in extra role helping activities, spend more time on-task, and pay attention to detail (Ones & Viswesvaran, 1996). Meta analytic results show that conscientiousness may predict counterproductive work behaviors (Salgado, 2002; Sackett & DeVore, 2001) as well as job satisfaction (Judge, Heller & Mount, 2002). Conscientiousness has been consistently linked to good job performance (for a review see Barrick & Mount, 2000), as well as motivation to learn (Colquitt, LePine & Noe, 2000). It is positively associated with the time and amount of effort exerted on a task, as well as quality of work output (Mount & Barrick, 1995).

Emotional Stability

Emotional stability, commonly labeled by its negative pole of neuroticism, refers to the tendency to exhibit emotional adjustment. Individuals high in emotional stability are typically "steady, calm and predictable" (Barrick & Mount, 2000, p. 21). All things being equal, employees who are high on this personality dimension perform well on the job (Barrick & Mount, 2000). High emotional stability is correlated with performance in jobs that require frequent interpersonal interaction or teamwork (Mount, Barrick, & Stewart, 1998), characteristics of jobs in which young workers may be employed. Barrick and Mount (2000) explain this as a heightened motivation due to greater confidence and control at work, coupled with a more positive outlook on life. Emotional stability has been negatively associated with CWBs in several empirical studies (e.g., Hough, Eaton, Dunnette, Kamp, & McCloy, 1990).

Surveillance

Theorists suggest that the degree of supervision, visibility of job performance, and work roles are important factors in preventing CWBs (Sonnenstuhl & Trice, 1991; Tittle & Logan, 1973). Surveillance can be used to address causes of CWBs, as well as trends and norms for such activity (Mack, Shannon, Quick & Quick, 1998). Not only do interpersonal interactions among coworkers and supervisors provide "maintenance" for CWBs, but it also allows for informal monitoring of employee behaviors (Collins & Griffin, 1998). Hollinger and Clark (1983) found relationships between perceptions of "getting caught" and engagement in theft from -.24 to -.29. Four studies of supermarket employees (London House & Food Marketing Institute, 1991, 1992, 1993, 1995) corroborated these findings, with similar associations (from -.22 to -.32). It is important to note that employees may view monitoring systems as a message from the organization that they are not trusted (e.g., Giacalone & Greenberg, 1978; Greenberg & Barling, 1996) or they may seek to find ways to "beat the system". This may be particularly apparent if sanctions for CWBs are not consistently punished (Giacalone & Greenberg, 1978). Thus, while surveillance systems have the potential to deter engagement in CWBs, it may also spawn resentment from employees. This may influence their reports of job quality on some level.

Summary

The relatively weak understanding of youth employment, particularly in reference to college students, is underscored by the dearth of research investigating the quality of their work (Stone & Mortimer, 1998). In recent years, numerous researchers have called for an expansion of research investigating the quality of youth employment; yet surprisingly few studies have heeded this suggestion in relation to job outcomes. The current study focused on job quality as an antecedent to affective reactions, which have been linked to counterproductive work behaviors

(e.g., Spector & Fox, 2005; Figure 3). Job quality was indexed by both self reports and non self reports (e.g., Liu, Spector, & Jex, 2005). Due to the demographic focus of this study, the CWBs included in the model were those of low intensity. Specifically, job satisfaction and frustration were explored as mediators of the relationship between work quality and counterproductive work behaviors (withdrawal, production deviance, and theft) in a sample of employed college students. Because employment is not a homogenous experience (Barling & Kelloway, 1999), individual differences of conscientiousness and emotional stability, as well as surveillance, were also taken into account.

Figure 3. Mediation model.

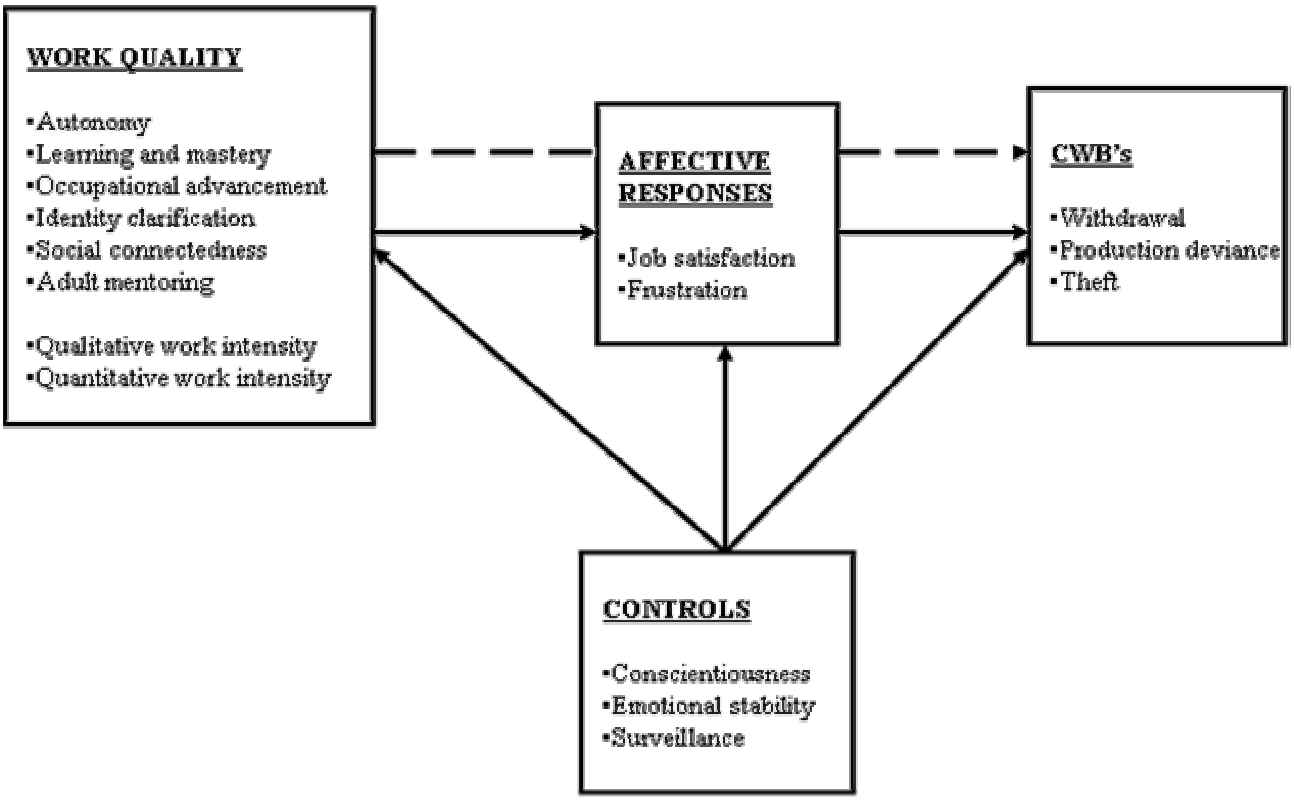


Figure 3. Overall model tested in the present study. Note that the dotted line from job quality to affective response to CWBs reflects an indirect relationship [mediation]. Solid lines reflect direct relationships.

CHAPTER II: METHOD

Participants

Data were collected from 342 working college students. This was a conservative extension beyond power analysis recommendations, which suggested that 287 participants were needed for a power of .80 (for detection of a small effect size; $\alpha = .05$) (Erdfelder, Faul, & Buchner, 1996). Because Mortimer & Finch (1996) found virtually no differences between students who work and those who do not work, using wide range of outcomes, participants in this study were limited to those who were *currently* working. Work may be an ambiguous term for some potential participants, so criteria for inclusion was as follows (Mortimer, 2003): participants must work at least once weekly outside the home for monetary payment. In addition, the age of participants was restricted to the 18-25 range. Participants were recruited from Psychology courses, and they received 1 hour of research credit in exchange for their time.

Participants were predominantly female (75.4%), with most participants in either their first (49.2%) or second (28.7%) year in college. The mean age of participants was 19.27 (*SD* = 1.27) years (Table 1). On average, participants had been working at their current job for 1.47 years (*SD* = 1.49) and had 3.98 years (*SD* = 2.11) of total working experience. The average work week was 18.30 hours (*SD* = 8.86), with shifts lasting on average 5.67 hours (*SD* = 3.68). Most participants worked in the food service (24.7%), customer service (25.1%), or retail sectors (14.2%), and the reason that most participants worked was to earn money for leisure activities (25.2%) or to pay for their educational expenses (33.3%). Much variation existed among time frames for working, with most participants (29%) working irregular schedules ("other") or during the morning (19%).

Table 1. Descriptive statistics.

	N	*Minimum*	*Maximum*	*Mean*	*SD*
Age	320	18	25	19.27	1.27
Job tenure	313	.00	10	1.47	1.49
Work tenure	312	.08	18	3.98	2.11
Shift length	307	1	25	5.67	3.67
Autonomy [a]	311	9	45	29.56	7.94
Social connectedness [a]	309	19	45	33.95	5.38
Learning/mastery [a]	292	7	33	20.24	4.83
Occupational development [a]	309	9	30	23.22	4.89
Identity clarification [a]	319	4	20	12.83	3.66
Mentoring [a]	307	25	80	57.34	10.18
Quantitative work intensity [a]	293	2	47	18.30	8.86
Qualitative work intensity [a]	316	9	25	19.72	3.47
Autonomy [b]	305	1	5	2.91	.95
Social connectedness [b]	305	1	5	3.70	.88
Learning/mastery [b]	305	1	5	2.79	.71
Occupational development [b]	305	1	5	2.60	.94
Identity clarification [b]	305	1	5	2.57	.92
Mentoring [b]	305	1	5	2.33	.66
Work intensity [b]	305	1	5	3.33	.73
Satisfaction	313	0	24	18.82	5.83
Frustration	317	3	15	8.09	2.60
Emotional stability	309	11	45	29.47	6.90
Conscientiousness	304	23	46	37.54	4.74
Surveillance	319	4	20	10.99	3.52
Theft	320	4	8	4.32	.70
Production deviance	320	3	8	3.58	.99
Withdrawal	318	4	15	5.88	1.88

[a]Self report
[b]Non self report

Due to the high percentage of female participants, descriptive information was examined for males and females separately. Differences between males and females were generally small and not statistically significant; however, gender differences were significant for four variables. Females reported significantly higher levels of identity clarification, t (307) = -2.09, $p < .05$ and mentoring, t (317) = -2.37, $p < .05$. Differences due to gender were also found for the personality dimensions. Males reported significantly higher levels of emotional stability t (307) = 3.83, $p < .001$, whereas females reported significantly higher levels of conscientiousness t (302) = -3.33, $p < .001$.

Measures

An online questionnaire consisting of three sections was employed for data collection (see Appendix A). Participants were instructed to complete the questionnaire *in reference to their current job.* In the event that a participant was employed at two different jobs, he or she was instructed to complete the questionnaire in reference to one of the jobs only. The first section consisted of a page devoted to demographic information and work history. The second section addressed job quality. The final section targeted job outcomes. A single open-ended question was added at the end of the survey, in case participants wanted to share any additional information for clarification purposes. This information was not included in analyses, because it was rather limited in scope; typical responses were “nothing else” or “I like my job”. Each section is described below.

Demographics

The first part of the questionnaire was used to assess various demographic variables associated with the respondents, their jobs, and their reasons for working. The first section

measured demographic variables (e.g., education level, age, occupation). Participants responded to items describing their job type, tenure (altogether and current job), and time devoted to work.

As with the Youth Development Study (e.g., Mortimer et al., 1992), participants entered their job titles and the sector in which they are employed. Participants received instructions on how to find their O*Net SOC code online. Instructions were pilot tested on a sample of 20 students to determine their clarity prior to implementation online (reference link http://www.onetcodeconnector.org/). The purpose of participants looking up their own SOC code was such that they could decide which code was most relevant to their particular occupation. This allowed any ambiguity in the job title (e.g., manager) to be clarified by the employee him or herself, by examining job tasks, duties and functions. Participants also listed their job titles and brief descriptions of their respective jobs. Reasons for employment were measured using the qualitative dimensions generated by Greenberger and Steinberg (1986). Lastly, respondents indicated when they worked (e.g., on the weekends) (Loughlin & Barling, 2001).

Job Quality

Job quality was assessed using both self-reports and non self-reports. The former was captured by participant responses to the questionnaire, while the latter was assessed by coding the job descriptions provided by the participants' respective job titles. For self reports, each participant used the internet to look up the 8-digit Standard Occupational Classification System (SOC) code that best described his or her current job in the O*Net database (e.g., waiter/waitress SOC code is 35-3031.00). Participants were asked to look up their own codes, in order to ensure that job duties were reflective of their respective jobs.

Two independent coders rated job quality using O*Net descriptions provided by participants. The purpose of this was to examine the jobs without the subjective bias inherent in

use of self-report descriptions of job quality (e.g., Spector & Jex, 1991). O*Net is a comprehensive database of worker and job characteristics (http://www.onetcenter.org/faqDatabase.html#q2) that provides information about knowledge, skills, and abilities (KSAs), as well as interests, general work activities (GWAs) and work context. Because the job quality dimensions measured in this study did not directly correspond with those listed on O*Net (e.g., work context, work needs), each coder was provided with a protocol template that defined the dimensions that represent job quality in the current study (e.g., social connectedness, learning and mastery). Prior to coding, coders were given a rubric of information regarding each category. In addition, the researcher met with coders to conduct frame of reference training; coders conducted three coding trials at the end of training to ensure that equivalent frame of reference was achieved. Coders looked up the SOC code provided by the participants. Each coder examined the entire job description "details report". This report provides a summary of the following dimensions: tasks, knowledge, skills, abilities, work activities, work context, job zone (environment), work styles, education, interests, work values, and work needs. Using the descriptions provided, coders rated each of the six dimensions of job quality on a scale of 1-5 (see Appendix B); a sample coding sheet was provided for reference. Each coder examined 72 job titles, with an overlap of 36 job titles for purposes of assessing interrater reliability. Coders noted one job for which no O*Net data was available, thus the total number of jobs for which each coder was responsible was 35.

The procedure employed by Spector and Jex (1991) was used to assess interrater agreement. First, percent agreement among raters was calculated for each job quality dimension (Spector, Jex & Chen, 1995). Overall, 81% of ratings were within one scale point. Specific quality dimensions were relatively similar (see Table 2), with the lowest percentage of agreement

in the identity clarification dimension; this is a highly person-specific component of job quality, and thus required more speculation on the part of the coders. Percent agreement alone may be misleading; thus additional methods of rating assessment were used. Correlations between each pair of raters for each construct were calculated across the 35 double-coded job titles. In addition, coefficient alphas were calculated for each job quality dimension, using each rater as a separate item. Sample size for both analyses was the number of total job titles rated ($N = 70$). Correlations between raters for each job quality dimension were acceptable, with the exception of the work intensity dimension. Similarly, reliabilities were acceptable for most scales, with work intensity and mentoring being the lowest. Raters noted that these were the two most difficult job quality dimensions to rate from available O*Net data, because they did not map clearly onto the rating criteria.

Table 2. Non Self Report Coder Statistics.

	Rater correlations	*Reliability*	*Agreement*
Autonomy	.670**	.77	96.29%
Social connectedness	.586**	.73	96.29%
Learning and mastery	.735**	.84	77.77%
Occupational development	.689**	.79	70.37%
Identity clarification	.456*	.60	66.67%
Mentoring	.437*	.52	81.48%
Work intensity	.220	.34	81.48%

** $p < .01$, * $p < .05$

Autonomy. The nine-item Autonomy subscale from the Work Design Questionnaire (Morgeson & Humphrey, 2003) was used to assess the three components of work autonomy (freedom in decision making, work methods, and work scheduling). Respondents rated their agreement with statements on a scale of "1" (strongly disagree) to "5" (strongly agree). A sample item is "my job allows me to make my own decisions about how to schedule my work". Higher scores represented higher levels of job autonomy. This scale addressed each of the three

dimensions of autonomy proposed by Wall, Jackson and Mullarkey (1995): work scheduling, decision-making, and work methods. Subscale reliability for this sample was high (α = .93).

Social connectedness. The five-item Interdependence subscale and the six-item Social Support subscale of the Work Design Questionnaire (Morgeson & Humphrey, 2003) was used to measure social connectedness at work. Interdependence reflects the degree of "connectedness" of jobs to one another; this subscale reflects the flow of work among jobs as well as the way in which work from jobs is affected by work from other jobs (Kiggundu, 1983). Social support is the degree to which the job provides relationships with others and includes support from supervisors and coworkers, as well as friendship at work. Respondents rated their agreement with statements on a scale of "1" (strongly disagree) to "5" (strongly agree). A sample item is "I have the chance in my job to get to know other people". Higher scores on each subscale represented higher levels of each construct. Reliability for this sample was .78.

Learning and mastery. A 16-item adapted version of the Position Performance subscale of the Career Mastery Inventory (Crites, 1990) measured learning and mastery. Items pertained to learning and mastering job content, as well as application of skills from school to work. Respondents rated their agreement with statements on a scale of "1" (strongly disagree) to "5" (strongly agree). A sample item is "I don't see how my job fits into the big picture". The internal consistency for this sample was .79.

Occupational development. Six items adapted from Gould's (1979) career orientation scale were used to assess occupational development and career decisions. Respondents rated their agreement with statements on a scale of "1" (strongly disagree) to "5" (strongly agree). A sample item is "I know what I need to do to reach my career goals". Reliability for this sample was .90.

Identity clarification. Six items generated by the author were used to assess identity clarification. Items were developed using the description of identity clarification through work described by Greenberger & Steinberg (1986). Respondents rated their agreement with statements on a scale of "1" (strongly disagree) to "5" (strongly agree). A sample item is "I feel that my job has helped me figure out who I am". Reliability for this sample was .82.

Adult mentoring. An adapted version of Noe's (1988) Mentoring Functions Scale was used to address the level of adult mentoring experienced by respondents. This 21-item scale measured two overarching dimensions of mentoring: psychosocial mentoring (e.g., coaching, counseling) and mentoring functions related to the protégé's career (e.g., exposure/visibility, challenging assignments). Respondents reported the extent to which each statement describes their mentoring relationship on a scale of "1" (to a very slight extent) to "5" (to a very large extent). A sample item is "my mentor has discussed my concerns about my competence, advancement, relationships with coworkers or other conflicts". Higher scores represent more exposure to mentoring. In the current study, reliability for the mentoring scale was .92.

Work intensity. Two methods were used to assess work intensity. *Qualitative* work intensity, or energy expended per unit time, was assessed using the work intensity subscale of the Psychological Climate and Effort Scale (Brown & Leigh, 1996). Respondents rated their agreement with statements on a scale of "1" (strongly disagree) to "5" (strongly agree). A sample item is "when there's a job to be done, I devote all my energy into getting it done". Reliability for this sample was .89. *Quantitative* work intensity was measured with two questions in the demographics section of the questionnaire; one question asked how many hours per week the respondent works, and the other question asked how many hours each work shift lasts.

Counterproductive Work Behaviors

Counterproductive behaviors were measured using 19 items from the CWB-Organization subscales of Spector et al's (2005) Counterproductive Work Behavior Checklist (CWB-C). Note that this is a causal indicator scale, such that conceptually related but distinct items are combined to define the construct of CWB; thus internal consistency reliabilities are largely irrelevant (Spector et al, 2005). Seven additional items that were classified under general CWB-Organization were also included. Respondents rated the frequency with which they engage in each type of behavior on a scale of "1" (never) to "5" (every day). A sample item is "purposely came late to an appointment or meeting".

Intervening Variables

Job satisfaction. The eight-item Job in General Scale (JIG; Russell, Spitzmüller, Lin, Stanton, Smith, & Ironson, 2004) was used to measure job satisfaction. Respondents indicated whether each of these items describes their job ("yes"), does not describe their job ("no"), or if they cannot decide ("?"). A sample descriptor is "better than most". Higher scores on each scale represented higher levels of satisfaction with the given construct. Internal consistency reliability for this sample was .82.

Frustration. Three items from Peters, O'Connor and Rudolph's (1980) frustration scale was adapted and used to assess frustration. Respondents rated their agreement with statements on a scale of "1" (strongly disagree) to "5" (strongly agree). A sample item is "trying to get my job done is rarely frustrating". Reliability in this sample was .74.

Control Variables

Conscientiousness. The 10-item Conscientiousness subscale of the International Personality Item Pool (IPIP, 2001) was used to measure conscientiousness. Respondents

indicated the extent to which each descriptor describes them, from "1" (very inaccurate) to "5" (very accurate). A sample item is "I am always prepared". High scores represent higher levels of conscientiousness. Reliability in this sample was .72.

Emotional stability. The 10-item Emotional Stability subscale of the International Personality Item Pool (IPIP, 2001) assessed emotional stability. Respondents indicated the extent to which each descriptor describes them, from "1" (very inaccurate) to "5" (very accurate). A sample item is "I get stressed out easily". High scores represent higher levels of emotional stability (lower neuroticism). Reliability for this subscale in the present sample was .89.

Surveillance. Five items from Dewar and Werbel (1979) assessed surveillance and enforcement. Respondents indicated the extent to which they agreed with each statement, from "1" (strongly agree) to "5" (strongly disagree). A sample item is "consequences for violating rules and procedures at work are severe". Low scores represent higher levels of surveillance by the employing organization. Reliability for this sample was .78.

Procedure

Participants were recruited from Psychology courses at Bowling Green State University, through class announcements and a posting on an online data collection system. They were able to complete an online survey outside of class time. Survey completion took between 30 and 45 minutes, for which participants were allotted 1 hour of research credit. Once participants' credit had been distributed, identifiers were purged from the database to protect confidentiality.

The following variables were measured: demographic information, work quality, affective reactions, personality, and counterproductive work behaviors. Informed consent appeared on the initial survey page, and participants were informed that progressing to the next web page would indicate their consent to participate in the study. Confidentiality was assured in

the informed consent, as well in any recruitment information. The purpose of this was to provide participants with assurance that their responses would not be available to their employers. By understanding that responses would remain in confidence and would not be linked directly to participants, it was hoped that participants would feel more comfortable admitting CWBs. After giving informed consent, participants were instructed to fill out each group of questions using the directions listed at the top of each scale. The researcher's contact information was given on the informed consent form, so that the participant could access her in the event of questions or concerns.

CHAPTER III: RESULTS

For purposes of clarity, this section is divided into four subsections. The first subsection focuses on data screening. The second subsection describes the relationship between self report and non self report job quality data. The third subsection describes self report data. The confirmatory factor analysis for the self report job quality criteria and evaluation of specific hypotheses using self report data are discussed. The third subsection describes the non self report data, including the coding procedures for O*Net data and evaluation of hypotheses using non self report data. All hypotheses were explored using SPSS software. Unless otherwise noted, the criterion for statistical significance is $p < .05$.

Data screening

Before analyzing data through path analysis, potential problems resulting from outliers and missing data were addressed. Assumptions of univariate and multivariate normality were assessed through SPSS. Univariate outliers were screened using the z-score criteria described by Tabachnick and Fidell (1996). This resulted in the deletion of 19 outliers. Reasons for deletion were as follow: age exceeded target range (N=5), job did not meet qualifications (N=1), CWB z-scores exceeded range (N= 8), mentoring z-scores exceeded range (N=3), social support z-scores exceed range (N=2). Multivariate outliers were determined using the Mahalanobis distance statistic. The Mahalanobis distance statistic essentially examines the distance of a particular case from the centroid, or the intersection of all variable means, of other cases (Kline, 1998; Tabachnick & Fidell, 1996). Values were evaluated using a conservative critical chi-square value of 49.73 (23, $p < .0001$). Three values above this critical value were found and deleted from the data set. Final sample size was 320. Missing data were omitted from the relevant analysis, rather than imputed.

Skewness and kurtosis were expected in this sample, due to the specific target age group. The following variables had noteworthy skewness or kurtosis values: gender, age, job tenure, work tenure, shift length, job satisfaction, theft, production deviance, withdrawal, objective mentoring. All other variables were appropriately normally distributed. Gender was negatively skewed; this was expected due to the high percentage of female participants. Similarly, age was positively skewed, with high kurtosis in the lower end of the distribution. This was expected due to the high percentage of first and second year participants (ages 18-19). Job and work tenure were positively skewed, with positive kurtosis values. These distributions were plausible in accordance with the young nature of this sample. Shift length was positively skewed, with high kurtosis values around 5 hours. Job satisfaction was negatively skewed, with the distribution peaked at the highest satisfaction value. As anticipated, all CWBs had positive skewness and kurtosis values. This was expected, due to the low base rate of theft, production deviance and withdrawal behaviors in the target population. Finally, objective mentoring exhibited moderate kurtosis, with a peaked distribution at the low end of the distribution. Frequency histograms including normal distribution curve overlays were examined along with skewness and kurtosis statistics to determine if alterations were needed (Tabachnick & Fidell, 1996). While in small samples (e.g., $N < 100$), issues associated with skewness and kurtosis may result in underestimation of variance, this problem is diminished with samples of 200 or more (Waternaux, 1976). Due to the issues with skewness and kurtosis, transformations were done on problematic data to reduce issues due to non linearity. Data still exhibited skewness and kurtosis after transformations were conducted. Therefore, analyses were conducted without the transformations.

Confirmatory Factor Analyses

Confirmatory factor analysis (CFA) was used to examine a priori hypotheses regarding a seven-factor structure for this data set (Hurley, Scandura, Schriesheim, Brannick, Seers, Vandenberg, & Williams, 1997). While this study is highly exploratory in nature and by some standards is ideal for an exploratory factor analysis (EFA), the fact that the factor structure was rooted in theory before testing the model justifies the use of CFA (Hurley, et al., 1997). For this reason, EQS software was employed to conduct a CFA on the factor structure of the self report job quality dimensions. Although measurement models for each construct were tested separately (Byrne, 1994), the full model failed to reach convergence after maximum iterations. In order to examine item functioning, reliability statistics were investigated in conjunction with item loadings, modification indices (e.g., Wald test, Lagrange multiplier test) and the amount of variance accounted for by each variable (Byrne, 1994). From the measurement model statistics (e.g., factor loadings), it was clear that the most problematic scale was the learning and mastery scale. Modification indices suggested that fit indices could be improved by deletion of the problematic items or addition of pathways to add crossloadings (e.g., between social connectedness items and mentoring). A summary of problematic items can be found in Appendix C.

This information suggests that further refinements of the job quality construct may be needed. The goal of this study was to investigate each construct as a separate entity, rather than to alter previously validated scales. Addition of crossloadings and deletion of scale items may compromise the integrity and original focus of the original scales. Thus, as reliability indices were acceptable, it was prudent to keep scales in their original format for analysis. To ensure original hypotheses were tested properly using each job quality dimension as *separate* entities,

refinements to the CFA were not made. To clarify, job quality dimensions were not tested as a 1-factor model, but as seven distinct predictors.

Self Report and Non Self Report Job Quality

Correlations between the same self report and non self report job quality variables (e.g., self report autonomy/non self report autonomy) were positive. Although four out of seven correlations were statistically significant, these relationships were not large. All self report and non self report dimensions of the same construct were positively correlated. Specifically, the following job quality dimensions had the strongest convergence between self report and non self report ratings: autonomy (.13, $p < .05$), identity clarification (.25, $p < .01$), mentoring (.19, $p < .01$), and social connectedness (.15, $p < .01$). Convergence between learning and mastery, occupational development, and qualitative work intensity was nonsignificant.

Self Report Data

General findings

Autonomy, identity clarification, learning and mastery, mentoring, social connectedness, occupational development, qualitative work intensity, and quantitative work intensity were indexed by scores on the respective scales of the online questionnaire. An introduction to general findings is followed by tests of specific hypotheses for self report data.

Self report job quality. Most correlations among job quality dimensions were positive and statistically significant (see Table 3). The strongest relationships were generally between mentoring and various other constructs, such as identity clarification (.36, $p < .01$), social connectedness (.39, $p < .01$), autonomy (.30, $p < .01$), and qualitative work intensity (.27, $p < .01$). This suggests that mentoring may prove beneficial for these components of job quality. As theory would suggest, the qualitative and quantitative work intensity dimensions were

significantly related (.12, $\underline{p} < .05$), yet it is clear that these are not overlapping constructs. Interestingly, *quantitative* work intensity was significantly related to only one other construct, that of social connectedness (.17, $\underline{p} < .01$). This stands in contrast to *qualitative* work intensity, which significantly related to all but one job quality dimension, learning and mastery.

Table 3. Correlations: Self Reported Job Quality Dimensions.

Self report	Autonomy	Identity clarification	Learning/ mastery	Mentoring	Social connectedness	Occupational development	Qualitative work intensity	Quantitative work intensity	Satisfaction	Frustration	Theft	Withdrawal	Production deviance	Surveillance	Emotional stability
Identity clarification	.30**														
Learning/mastery	-.04	.03													
Mentoring	.28**	.36**	-.12*												
Social connectedness	.22**	.28**	-.01	.39**											
Occupational development	.16**	.12*	-.20**	.14**	.00										
Qualitative work intensity	.18**	.30**	-.07	.27**	.23**	.17**									
Quantitative work intensity	.01	.03	.04	.03	.17**	-.09	.12*								
Satisfaction	.35**	.24**	-.10	.38**	.33**	.08	.28**	-.03							
Frustration	-.10†	.08	-.04	-.06	-.03	-.04	-.09	.01	-.37**						
Theft	.02	-.03	.01	-.03	.06	-.03	-.07	.09	-.08	.08					
Withdrawal	.12*	.03	.04	.09	.07	-.04	-.15**	.25**	-.14*	.01	.20**				
Production deviance	-.13*	-.15**	.07	-.11†	.03	-.18**	-.28**	.01	-.19**	.18**	.24**	.23**			
Surveillance	-.13*	-.01	-.13*	.08	.06	-.01	-.09†	.08	-.22**	.19**	.06	.01	.09†		
Emotional stability	-.02	-.04	-.11†	.01	.12*	.16**	.07	.04	.13*	-.26**	-.0	-.01	-.12*	-.02	
Conscientiousness	.06	.17**	-.16**	.21**	.22**	.23**	.54**	.023	.23**	-.12*	-.01†	-.16**	-.21**	-.17**	.20**

** $\underline{p} < .01$, * $\underline{p} < .05$, † $\underline{p} < .10$

Affective reactions. Relationships between each job quality dimension and satisfaction were generally in the expected direction. Correlations between satisfaction and autonomy (.35), identity clarification (.24), mentoring (.38), social connectedness (.33), and qualitative work intensity (.28) were all statistically significant ($p < .01$). Correlations between the job quality dimensions and frustration were not statistically significant.

Counterproductive work behaviors. Correlations among job quality variables and CWBs were varied. Contrary to expectation, none of the relationships between theft and self reported job quality variable was statistically significant. For withdrawal, correlations with qualitative work intensity (-.15) and quantitative work intensity (.25) dimensions were statistically significant ($p < .01$). This again supports the dual conceptualization of work intensity. In addition, autonomy was significantly correlated with withdrawal (.12, $p < .05$); such that higher autonomy was associated with higher engagement in withdrawal. This pattern was reversed for production deviance (-.13, $p < .05$). Finally, production deviance accounted for the strongest relationships among job quality variables and CWBs. In line with expectations, identity clarification (-.15, $p < .01$), occupational development (-.18, $p < .01$), and qualitative work intensity (-.28, $p < .01$), were negatively related to production deviance.

Hypothesis tests

Hypothesis 1, that job satisfaction would be negatively related to counterproductive work behaviors, was supported for all dimensions of CWBs. Job satisfaction was significantly correlated with withdrawal (-.14, $p < .05$) and production deviance (-.19, $p < .01$). This supports the importance of job satisfaction in reference to engagement in CWBs.

Hypothesis 2, that frustration would be positively related to counterproductive work behaviors, received weak support. Specifically, relationships were weaker than those with job

satisfaction. Although all relationships with CWBs were in the predicted direction, only the relationship with production deviance was statistically significant (.18, $\underline{p} < .01$).

To evaluate mediation effects in this sample, the traditional four step regression procedure developed by Baron and Kenny (1986) was used (see http:davidakenny.net/cm/mediate.htm)[ii]. In short, this method involved satisfying four steps, as follows: 1) the predictor *X* must significantly predict the dependent measure *Y*; 2) the predictor *X* must significantly predict the hypothesized mediator *M*; 3) the hypothesized mediator *M* must significantly predict the dependent measure *Y*; 4) the impact of the predictor on the dependent measure is reduced and nonsignificant after controlling for the hypothesized mediator. Note that all control variables (conscientiousness, emotional stability and surveillance) were entered in prior to job quality variables in the model. All self report job quality variables were included as predictors in the first, second and fourth steps (MacKinnon, 2006).

Hypothesis 3a, that satisfaction would partially mediate the relationship between job quality and counterproductivity, received limited support from this data. The left side of Table 4 shows the results from each step in the Baron and Kenny test for mediation, with job satisfaction as the mediator. In accordance with the Baron and Kenny steps for establishing mediation, two instances of mediation were supported. Satisfaction mediated the relationship between qualitative work intensity and withdrawal, as seen by the drop in standardized coefficient size from -.15 in the first step to -.12 (ns) in the final step. The second instance occurred between qualitative work intensity and production deviance, as evidenced by the change in coefficients from -.27 to -.24; note that the latter coefficient was still statistically significant.

[ii] Although the Sobel (1982) test is a more rigorous test of indirect effects (MacKinnon, Lockwood, Hoffman, West & Sheets, 2002), it was not appropriate to employ in this sample due to nonnormality (Preacher & Hayes, 2004).

Hypothesis 3b, that frustration would partially mediate the relationship between job quality and counterproductivity, was minimally supported. The left side of Table 4 shows the results from each step in the Baron and Kenny test for mediation, with frustration as the mediator. One instance of mediation was supported. Frustration mediated the relationship between qualitative work intensity and production deviance, as seen by the drop in standardized coefficient size from -.27 in the first step to -.25 in the final step; note that in the final step the coefficient was still statistically significant, which suggests partial mediation.

Table 4. Mediation Tests: Self Report Data.

		Mediator: Satisfaction Standardized coefficient (β)			Standardized coefficien
	Step 1 [a] *Quality →CWB*	*Step 2 Quality→ Satisfaction*	*Step 3 Satisfaction→CWB*	*Step 4 Quality/Satisfaction→CWB*	*Step 2 Quality→ Frustration*
Theft					
Autonomy	.06	.12	.01	-.06	-.13†
Social connectedness	.17*	.17*		.20*	-.02
Learning/mastery	-.03	-.06		-.04	-.13†
Occupational development	.03	.00		-.09	-.04
Identity clarification	.09	.06		-.02	.21*
Qualitative work intensity	-.07	.13†		-.24*	-.15†
Quantitative work intensity	-.11	-.10		-.04	-.09
Mentoring	-.11	.26		-.02	-.06
	$R^2 = .07$	$R^2 = .34$	$R^2 = .02$	$R^2 = .18$	$R^2 = .15$
Production deviance					
Autonomy	-.11	.12*	-.16*	-.06	.13
Social connectedness	.17*	.17*		.20*	-.02
Learning/mastery	-.02	-.06		-.04	-.13
Occupational development	-.11	.00		-.09	-.04
Identity clarification	-.03	.06		-.02	.24*
Qualitative work intensity	-.27*	.13†		-.24*	-.15†
Quantitative work intensity	-.02	-.10		-.04	.09
Mentoring	-.07	.26		-.02	-.06
	$R^2 = .15$	$R^2 = .34$	$R^2 = .08$	$R^2 = .18$	$R^2 = .15$
Withdrawal					
Autonomy	.20*	.12*	-.13*	.24**	.13
Social connectedness	.07	.17*		.10	-.02
Learning/mastery	.03	-.06		.01	-.13
Occupational development	-.01	.00		-.01	-.04
Identity clarification	-.01	.06		-.01	.24*
Qualitative work intensity	-.15†	.13†		-.12	-.15†
Quantitative work intensity	.17*	-.10		.15*	.09
Mentoring	.05	.26		.12	-.06

Table 4 (cont'd).

	$R^2 = .13$	$R^2 = .34$	$R^2 = .05$	$R^2 = .17$	$R^2 = .15$

** $p < .01$, * $p < .05$, † $p < .10$

[a] Control variables (conscientiousness, emotional stability and surveillance) were entered prior to Baron and Kenny's (1986) step 1.

Non self report data

General findings

Autonomy, identity clarification, learning and mastery, mentoring, social connectedness, occupational development, and qualitative work intensity were indexed by ratings of O*Net job descriptions. An introduction to general findings is followed by tests of specific hypotheses for self report data.

Non self report job quality. In general, correlations among non self report measures of job quality were positive and significant (see Table 5). Specifically, the relationship between mastery, identity clarification and occupational development were quite strong (all $p < .01$), as follows: occupational development/mastery (.78); occupational development/identity clarification (.87), identity clarification/mastery (.71). Unlike the relationships in the self report data, the qualitative and quantitative work intensity dimensions were not highly related. In fact, quantitative work intensity was significantly related to only one additional construct, that of mentoring (-.13, $p < .05$). This lends support to consideration of quantitative and qualitative work intensity as separate entities.

Table 5. Correlations with Non Self Report Dimensions of Job Quality.

Non self report	Autonomy	Identity clarification	Learning/ mastery	Mentoring	Social connectedness	Occupational development	Qualitative work intensity	Quantitative work intensity	Satisfaction	Frustration	Theft	Withdrawal	Production deviance	Surveillance	Emotional stability
Identity clarification	.51**														
Learning/mastery	.61**	.70**													
Mentoring	.13*	.25**	.29**		.										
Social connectedness	.33**	.48**	.54**	.46**											
Occupational development	.60**	.87**	.78**	.20**	.43**										
Qualitative work intensity	.45**	.56**	.55**	.13*	.53**	.54**									
Quantitative work intensity	-.05	-.02	-.03	-.13*	.05	-.08	.05								
Satisfaction	.12*	.16**	.14*	.21**	.05	.18**	.04	-.03							
Frustration	.05	.04	-.01	.01	.11*	-.02	.09	.01	-.37**						
Theft	.03	.03	.07	-.02	.10	-.00	.08	.09	-.08	.08					
Withdrawal	.06	-.01	.03	-.08	-.03	.01	.04	.25**	-.14*	.01	.20**				
Production deviance	-.06	-.11	-.05	-.11	-.00	-.10	-.01	.01	-.19**	.18**	.24**	.23**			
Surveillance	-.07	-.07	-.12	-.07	-.03	-.13	.07	.08	-.22**	.19**	.07	.01	.09		
Emotional stability	-.07	.03	-.07	-.02	-.06	.01	-.05	.04	.13*	-.26**	-.07	-.01	-.12*	-.02	
Conscientiousness	-.04	.08	-.01	.11	.07	.06	-.10	.02	.23**	-.12*	-.10	-.16**	-.21**	-.17**	.20**

** $\underline{p} < .01$, * $p < .05$, † $\underline{p} < .10$

Affective reactions. Relationships between each job quality dimension and satisfaction were generally positive, with the exception of quantitative work intensity. Specifically, relationships between satisfaction and autonomy (.12, $p < .05$), identity clarification (.16, $p < .05$), learning and mastery (.14, $p < .05$), mentoring (.21, $p < .05$) and occupational development (.18, $p < .05$) were noteworthy. As with self report data, relationships among job quality variables and frustration were smaller in magnitude than those with satisfaction, and many were not in the expected direction. Unexpectedly, social connectedness (.11, $p < .05$) was *positively* related to frustration.

Counterproductive work behaviors. Correlations among non self report job quality variables and CWBs were varied and relatively small ($r \leq .11$). None of these relationships reached statistical significance.

Hypothesis tests

Due to the strong relationships among non self report job quality variables, it was unwise to include all job quality variables in the same analysis (Tabachnick & Fidell, 1996). Therefore, each job quality variable was examined as an independent predictor of CWBs[iii]. Hypothesis 3a, that satisfaction would partially mediate the relationship between job quality and counterproductivity, and hypothesis 3b, that frustration would partially mediate the relationship between job quality and counterproductivity, were tested separately for each non self report job quality variable. Table 6 shows results from non self report job quality. Regressions with satisfaction as the hypothesized mediator are on the left and those with frustration as the hypothesized mediator are on the right. Neither satisfaction nor frustration was supported as mediators in any analyses.

[iii] Analyses were also run with all job quality variables as predictors (as with self report data). No evidence for mediation was found.

Table 6. Mediation Tests: Non Self Report Job Quality Variables.

Autonomy			*Mediator: Satisfaction* *Standardized coefficient (β)*				*Mediator: Frustration* *Standardized coefficient (β)*
	Step 1 [a] *Quality →CWB*	*Step 2 Quality→ Satisfaction*	*Step 3 Satisfaction →CWB*	*Step 4 Quality/Satisfaction →CWB*	*Step 2 Quality→ Frustration*	*Step 3 Frustration→ CWB*	*Step 4 Quality/Frustration →CWB*
Theft	.05 $R^2 = .03$	.13* $R^2 = .11$	.01 $R^2 = .02$	.05 $R^2 = .03$	.01 $R^2 = .12$	.04 $R^2 = .02$	.05 $R^2 = .03$
Production deviance	-.06 $R^2 = .06$	.13* $R^2 = .11$	-.16* $R^2 = .08$	-.03 $R^2 = .08$	.01 $R^2 = .12$	.12* $R^2 = .07$	-.07 $R^2 = .08$
Withdrawal	.07 $R^2 = .04$	.13* $R^2 = .11$	-.13* $R^2 = .05$	.09 $R^2 = .05$	.01 $R^2 = .12$	.03 $R^2 = .04$	.08 $R^2 = .04$
Social connectedness							
			Mediator: Satisfaction *Standardized coefficient (β)*				*Mediator: Frustration* *Standardized coefficient (β)*
	Step 1 [a] *Quality →CWB*	*Step 2 Quality→ Satisfaction*	*Step 3 Satisfaction →CWB*	*Step 4 Quality/Satisfaction →CWB*	*Step 2 Quality→ Frustration*	*Step 3 Frustration→ CWB*	*Step 4 Quality/Frustration →CWB*
Theft	.15* $R^2 = .05$	.01 $R^2 = .09$	.01 $R^2 = .02$	.15* $R^2 = .05$	.08 $R^2 = .13$	.04 $R^2 = .02$	.15* $R^2 = .05$
Production deviance	-.00 $R^2 = .06$	.01 $R^2 = .09$	-.16* $R^2 = .08$	.01 $R^2 = .08$	.08 $R^2 = .13$	.12* $R^2 = .07$	-.03 $R^2 = .08$
Withdrawal	.02 $R^2 = .04$	.01 $R^2 = .09$	-.13* $R^2 = .05$	.01 $R^2 = .05$	.08 $R^2 = .13$	.03 $R^2 = .04$	.02 $R^2 = .04$
Learning and mastery							
			Mediator: Satisfaction *Standardized coefficient (β)*				*Mediator: Frustration* *Standardized coefficient (β)*
	Step 1 [a] *Quality →CWB*	*Step 2 Quality→ Satisfaction*	*Step 3 Satisfaction →CWB*	*Step 4 Quality/Satisfaction →CWB*	*Step 2 Quality→ Frustration*	*Step 3 Frustration→ CWB*	*Step 4 Quality/Frustration →CWB*
Theft	.13* $R^2 = .04$	.13* $R^2 = .11$	.01 $R^2 = .02$	.13* $R^2 = .04$	-.02 $R^2 = .12$	.04 $R^2 = .02$	.14* $R^2 = .04$
Production deviance	-.03 $R^2 = .06$	.13* $R^2 = .11$	-.16* $R^2 = .08$	-.00 $R^2 = .08$	-.02 $R^2 = .12$	.12* $R^2 = .07$	-.04 $R^2 = .08$
Withdrawal	.06	.13*	-.13*	.07	-.02	.03	.07

Table 6 (cont'd)

	$R^2 = .04$	$R^2 = .11$	$R^2 = .05$	$R^2 = .05$	$R^2 = .12$	$R^2 = .04$	$R^2 = .04$
Occupational development							
			Mediator: Satisfaction *Standardized coefficient (β)*			*Mediator: Frustration* *Standardized coefficient (β)*	
	Step 1 *Quality* *→CWB*	*Step 2* *Quality→* *Satisfaction*	*Step 3* *Satisfaction* *→CWB*	*Step 4* *Quality/Satisfaction* *→CWB*	*Step 2* *Quality→* *Frustration*	*Step 3* *Frustration→* *CWB*	*Step 4* *Quality/Frustration* *→CWB*
Theft	.04	.16*	.01	.03	-.00	.04	.04
	$R^2 = .03$	$R^2 = .12$	$R^2 = .02$	$R^2 = .03$	$R^2 = .12$	$R^2 = .02$	$R^2 = .02$
Production deviance	-.06	.16*	-.16*	-.03	-.00	.12*	-.06
	$R^2 = .06$	$R^2 = .12$	$R^2 = .08$	$R^2 = .08$	$R^2 = .12$	$R^2 = .07$	$R^2 = .08$
Withdrawal	.02	.16*	-.13*	.05	-.00	.03	.04
	$R^2 = .04$	$R^2 = .12$	$R^2 = .05$	$R^2 = .05$	$R^2 = .12$	$R^2 = .04$	$R^2 = .04$
Identity clarification							
			Mediator: Satisfaction *Standardized coefficient (β)*			*Mediator: Frustration* *Standardized coefficient (β)*	
	Step 1 [a] *Quality* *→CWB*	*Step 2* *Quality→* *Satisfaction*	*Step 3* *Satisfaction* *→CWB*	*Step 4* *Quality/Satisfaction* *→CWB*	*Step 2* *Quality→* *Frustration*	*Step 3* *Frustration→* *CWB*	*Step 4* *Quality/Frustration* *→CWB*
Theft	.08	.14*	.01	.08	.04	.04	.07
	$R^2 = .03$	$R^2 = .11$	$R^2 = .02$	$R^2 = .03$	$R^2 = .12$	$R^2 = .02$	$R^2 = .03$
Production deviance	-.07	.14*	-.16*	-.04	.04	.12*	-.08
	$R^2 = .07$	$R^2 = .11$	$R^2 = .08$	$R^2 = .08$	$R^2 = .12$	$R^2 = .07$	$R^2 = .09$
Withdrawal	.02	.14*	-.13*	.04	.04	.03	.02
	$R^2 = .04$	$R^2 = .11$	$R^2 = .05$	$R^2 = .05$	$R^2 = .12$	$R^2 = .04$	$R^2 = .04$
Qualitative work intensity							
			Mediator: Satisfaction *Standardized coefficient (β)*			*Mediator: Frustration* *Standardized coefficient (β)*	
	Step 1 [a] *Quality* *→CWB*	*Step 2* *Quality→* *Satisfaction*	*Step 3* *Satisfaction* *→CWB*	*Step 4* *Quality/Satisfaction* *→CWB*	*Step 2* *Quality→* *Frustration*	*Step 3* *Frustration→* *CWB*	*Step 4* *Quality/Frustration* *→CWB*
Theft	.12*	.06	.01	.11[†]	.07	.04	.12[†]
	$R^2 = .04$	$R^2 = .09$	$R^2 = .02$	$R^2 = .04$	$R^2 = .12$	$R^2 = .02$	$R^2 = .04$
Production deviance	-.03	.06	-.16*	-.02	.07	.12*	-.05
	$R^2 = .06$	$R^2 = .09$	$R^2 = .08$	$R^2 = .08$	$R^2 = .12$	$R^2 = .07$	$R^2 = .08$

Table 6 (cont'd)

Withdrawal	.05 $R^2 = .04$	.06 $R^2 = .09$	-.13* $R^2 = .05$	.05 $R^2 = .05$	.07 $R^2 = .12$	.03 $R^2 = .04$	.04 $R^2 = .04$
Mentoring							
			Mediator: Satisfaction *Standardized coefficient (β)*			*Mediator: Frustration* *Standardized coefficient (β)*	
	Step 1 [a] *Quality →CWB*	*Step 2* *Quality→ Satisfaction*	*Step 3* *Satisfaction →CWB*	*Step 4* *Quality/Satisfaction →CWB*	*Step 2* *Quality→ Frustration*	*Step 3* *Frustration→ CWB*	*Step 4* *Quality/Frustration →CWB*
Theft	.05 $R^2 = .03$	.17* $R^2 = .12$	.01 $R^2 = .02$	.05 $R^2 = .03$	.03 $R^2 = .12$	.04 $R^2 = .02$	.05 $R^2 = .03$
Production deviance	-.09 $R^2 = .07$	.17* $R^2 = .12$	-.16* $R^2 = .08$	-.07 $R^2 = .08$	.03 $R^2 = .12$	.12* $R^2 = .07$	-.10† $R^2 = .09$
Withdrawal	.-.04 $R^2 = .04$	.17* $R^2 = .12$	-.13* $R^2 = .05$	-.03 $R^2 = .05$	.03 $R^2 = .12$	.03 $R^2 = .04$	-.04 $R^2 = .04$

** $p < .01$, * $p < .05$, † $p < .10$

[a] Control variables (conscientiousness, emotional stability and surveillance) were entered prior to Baron and Kenny's (1986) step 1.

CHAPTER IV: DISCUSSION

This study was designed to examine the mediating roles of satisfaction and frustration in the relationship between job quality and counterproductive work behaviors in a sample of employed college students. A secondary objective was to investigate the various components of job quality, to provide an initial step in developing a framework for youth employment. This study contributes to the knowledge of youth employment and counterproductivity in several ways.

First, this study examined a sample that has been highlighted as one of the National Institute for Occupational Safety and Health's (NIOSH) priority research areas. Although many studies have focused on determinants of counterproductivity in adult samples, few have studied how *and if* these findings translate to a younger population (e.g., Greenberger & Steinberg, 1986). Industries in which most young people work (e.g., retail, food service) are among the highest in counterproductivity (e.g., Hollinger, Slora, & Terris, 1992), yet the determinants of this low-level deviance are unclear. Focusing on counterproductivity in young workers provided a first step to determine if findings for adults and teens generalize to a college demographic.

Second, this study provided an initial step in examining the components of job quality for young workers. Both objective and subjective measures of work characteristics have been associated with affective reactions, such as satisfaction (e.g., Glick, Jenkins & Gupta, 1986) in adult samples, but the relevance of such relationships has not been extended to young workers. Thus, to strengthen the study, the seven dimensions of job quality posited by Greenberger and Steinberg's (1986) qualitative large scale youth employment study (autonomy, learning and mastery, occupational advancement, identity clarification, social connectedness, adult mentoring, and work intensity) were operationalized in two ways – self report and non self report. Unlike

previous research, the construct of work intensity was divided into two components, to address hours of work and effort expended at work.

Summary of Main Findings

As expected, satisfaction was negatively related to CWBs. This supports previous findings (e.g., Rosse & Saturay, 2004; Spector, 2005) that dissatisfaction may lead to CWBs. Unlike satisfaction, frustration was only weakly related to CWBs, contrasting with previous findings (e.g., Storms & Spector, 1987). The strongest relationships between affective reactions and CWBs were with the production deviance dimension. This suggests that affect may have a stronger role in withholding effort than in stealing or physically withdrawing from work. When compared to satisfaction, relationships among frustration and CWBs were notably smaller. Spector (1978) suggested that mild levels of frustration may lead to less severe outcomes than more intense levels of frustration, however, it may be the case that the participants in this study did not reach the threshold level of frustration that precipitates CWB involvement.

Results indicated partial support for mediation in the self report data and no support for mediation in the non self report job quality data. Although prior studies have linked CWBs to employees who are young, new to the job, work part time and earn low wages (Frank, 1989; Hollinger & Clark, 1983), results from this study suggest that antecedents of CWBs may not be as straightforward. In fact, antecedents of counterproductivity may extend beyond simple demographic characteristics (e.g., age) to include motivation and effort. Most notable was the importance of qualitative work intensity and affective reactions, with respect to production deviance and withdrawal. Individuals high in qualitative work intensity reported *higher* levels of satisfaction, which led to *lower* levels of both production deviance and withdrawal. Likewise, individuals higher in qualitative work intensity reported *lower* levels of frustration, which led to

lower levels of production deviance. This was unexpected, but critical, in beginning to understand youth employment. In contrast to the notion that young workers do not seek challenging jobs that require high effort, results from this study suggest that this is a primary factor in determining job related attitudes.

Implications for Research and Theory

The findings from this study present several implications for both research and theory. In the first section, issues pertaining to measurement of CWBs and job quality are addressed. The second section focuses on theoretical implications of findings from this study. Finally, practical implications for reduction of CWBs are discussed.

Measurement implications

Counterproductive work behaviors are particularly challenging to assess, because of the tradeoff between objectivity and accuracy. In line with expectation, data from this study indicate that the base rate for CWBs was somewhat low; this introduces question regarding measurement. As Fox, Spector, Goh and Bruursema (under review) posited, no single source of data is acceptably free of either contamination or deficiency. While many argue that common method bias may inflate relationships among constructs assessed via self-report (e.g., for a review see Podsakoff, MacKenzie, Lee & Podsakoff, 2003), the opposite argument, that people may underreport engagement in deviant behavior (e.g., Lee, 1993) has also been made. Furthermore, obtaining ratings from coworkers and organizational data may provide less accurate ratings. One caveat worth noting is that of self-report measures of counterproductive work behaviors. "Public" behaviors (e.g., interpersonal conflict) that involve other people may be more easily observed by coworkers, as compared to "private" behaviors (e.g., withholding effort) (Fox, et al.,

under review). The motivational component of CWBs is likely not captured through "objective" ratings. In addition, intent is left open to the observer's speculation.

Like CWBs, job quality has become an elusive construct to capture. Factors that influence one's appraisal of a "good" working environment may not be identical, as evidenced by the variation in the self report job quality dimensions. The present study was an initial step in development of a taxonomy of job quality for young workers. Although theorists acknowledge that job quality is an important factor in determining the ultimate employment outcomes (Barling, Rogers & Kelloway, 1995; Loughlin & Barling, 1998; Mortimer, Harley & Staff, 2002), few individuals can provide a concrete framework to empirically support this notion. Difficulty in constructing this definition rests within the confines of individual differences, as well as occupational differences. This is further exacerbated as researchers look toward defining job quality for young workers, a population for whom jobs may be seen as temporary means for attaining short term financial goals. Models, such as the widespread Job Characteristics Model (e.g. Hackman & Oldham, 1970), may not necessarily accommodate the job quality demands of young workers. For instance, young workers may not necessarily seek increased responsibility for outcomes of work; they may simply seek a low intensity job to pay rent. Motivation for work may be considered in future studies to address the whether self reports of job variables, affective reactions, or CWBs are influenced by motivation to work.

The results of this study suggest that the conceptualization of job quality for a young sample may benefit from refinement. Many of the non self report dimensions of job quality were highly related, which suggests that they are more similar than originally anticipated. Development of scales targeted solely at employed college students may prove beneficial in creating a more appropriate instrument to assess job quality, as well as CWB's. Moreover,

different job quality variables had differential predictive power. For instance, autonomy may have a dual function as an antecedent of CWBs, perhaps in a curvilinear fashion. Too much autonomy could result in boredom or a lack of direction, both of which may lead to higher CWBs. Too little autonomy could result in frustration or lack of control, which could lead to higher CWBs. Future research endeavors may seek to identify the appropriate level of autonomy for young workers by examining individual and environmental differences in workers and workplaces, respectively. The present study provided an initial step in this process by addressing several theoretical dimensions of job quality, as well as by dividing work intensity into two dimensions.

The Occupational Information Network (O*Net) was included in this study as a resource to provide non self report data about specific job titles. While the value of non self report information has been upheld by many theorists (e.g., Schaubroeck, 1999), it has also received criticism because it fails to capture differences in individual interpretations (e.g., Perrewe & Zellars, 1999). Use of O*Net to capture job quality was no exception to this dilemma, in that this endeavor proved both useful and difficult. The benefit of O*Net is that it provides information regarding the average job; for instance, it provides information about the job "waitress" that is not tainted by individual differences. However, two individuals may experience the same job very differently, due to both environmental factors and individual differences. Waitresses in the same job at the same restaurant may experience differences due to shifts, seniority, personality or role demands. Defining the lack of job quality as a stressful rests on the assumption that an individual has perceived the deficit as stressful (Lazarus, 1976). Self-reports may capture such valuable perceived distinctions among jobs that can influence employee behavior and attitudes (Perrewe & Zellars, 1999). O*Net lacks the information to pinpoint whether a specific person's

job as a waitress is stressful; it simply provides information about the scope of the job in general. Spector and Fox (2005) refer to the distinction between objective and subjective reports of stressors as work as environmental stressors (e.g., O*Net ratings of job environment) and perceived stressors (e.g., interpretation), respectively. Results from this study suggest that O*Net is a useful tool for understanding the basic responsibilities and duties associated with a particular job, however, specific information regarding individual jobs may be best addressed via additional reports. The association of perceptions of work quality with the aforementioned outcomes is important in further evaluating the role of stress and emotion in workplace behavior.

Theoretical implications

In accordance with Mortimer's (2003) recommendation, the present study extended the framework for job quality beyond the simple construct of quantitative work intensity. Results supported a dual conceptualization of work intensity to include both qualitative and quantitative dimensions. Although related, these were clearly separate dimensions; quantitative work intensity displayed fewer and weaker relationships with other variables than did qualitative work intensity. Qualitative work intensity was more strongly related to satisfaction and frustration than was quantitative work intensity, suggesting that qualitative work intensity may be more influential in forming affective reactions. Moreover, the two different work intensities were differentially related to CWBs, with qualitative work intensity being negatively related and quantitative being positively related to CWBs. This finding partially explains why previous studies that operationalized work intensity as hours of work yielded mixed findings.

The finding that satisfaction was an important factor for the relationship between qualitative work intensity and CWB's supports the proposition that young workers do value some form of challenge in their work. Negative outcomes may be more highly associated with

other variables, such as lack of challenge or stimulation, as evidenced by the mediation effects of satisfaction in the relationships between qualitative work intensity and withdrawal and production deviance. It appears that the number of hours one works is not as influential as is the effort put into the work. Clearly, having a high volume of difficult or effortful work has different implications with respect to counterproductivity than does working long hours. To clarify, it appears that qualitative work intensity is linked to *less* engagement in CWBs (e.g., withdrawal), while quantitative work intensity is linked to *more* engagement in CWBs (e.g., production deviance). Employees with a lot to do may simply have less time to engage in CWBs; employees who work long hours may not necessarily be working hard for the entire duration of a shift. This brings into question the well known finding that young workers who spend over 20 hours working per week suffer detrimental outcomes (e.g., Mortimer, et al., 1996; Steinberg & Dornbusch, 1991). In fact, results from this study suggest that the issue at hand may not be the time spent at work, but rather the type of challenges presented on the job.

Finally, as previously noted, the stressor-emotion model has emerged as a prominent framework for studying the origins of CWBs. While this study was not directly testing this model per se, some of the proposed links were supported; however, the role of low job quality as a stressor was not completely clear. Perhaps in this young sample, the specific constructs that represented job quality were interpreted differently than in a more seasoned sample of adult workers. In addition, the directionality of this model warrants empirical investigation to determine whether CWBs themselves can create low job quality (Spector & Fox, 2005). For instance, an environment characterized by high involvement in CWBs may be considered a stressor. This may result in negative affective reactions, which may in turn lead to engagement in CWBs. In accordance with Gruys and Sackett (2003), engagement in counterproductivity may

beget more engagement in CWBs; thus, CWBs may be an antecedent and an outcome in this model. Inclusion of more reciprocal relationships in testing the relationship between job quality, affective reactions and CWB's may prove useful in elucidating whether the lack of job quality is actually a stressor.

Practical implications

From the standpoint of the organization, low level CWBs are particularly detrimental because they often go unnoticed. Moreover, it is likely that by the time organizations are aware of widespread counterproductivity, they are faced with a climate that informally condones – or even rewards - such behavior. Targeting the roots of CWBs through interventions, particularly in sectors that employ young workers, may address the potential spiral into more aggressive CWBs. Collins and Griffin (1998) speculate about the development of covert counterproductivity, which can eventually create a work environment characterized by decreased openness, mistrust, and lack of cooperation. Jobs that require teamwork or interpersonal behaviors may be particularly affected by such CWBs. At times, this covert counterproductivity can result in positive task performance (e.g., job advancements for perpetrator), thus going undetected by the organization. This could serve to reinforce such covert interpersonal aggression.

Modification of the organizational climate has been shown to reduce employee deviance; this is most effective when programs target psychological (e.g. motivation), rather than environmental (e.g., surveillance systems), factors (Jones & Boye, 1995; Parilla, Hollinger & Clark, 1988). This is evidenced in the relationship between satisfaction and frustration with production deviance in the current study. Likewise, results indicated that satisfaction is an important precipitating factor for withdrawal. Affective reactions explained a small amount of variance in these CWBs, suggesting additional influences that warrant consideration. Qualitative

studies of young employees may prove helpful in identifying antecedents to CWBs, as well as a threshold for affective reactions. For instance, *what is the threshold for frustration? How many frustrating events occur before one considers (or engages in) various CWBs?* This may be particularly salient for customer service jobs, in which levels of satisfaction and frustration due to emotional labor may be high. Diary studies that track the accumulation of work-, as well as nonwork-related events, may address the satisfaction and frustration thresholds with respect to counterproductivity.

Because intentions to engage in a behavior are highly reflective of actual engagement in the behavior (e.g., Elander, West, & French, 1993; Ajzen, 2001), it is important to consider willingness to violate moral or legal workplace rules. For instance, employees who work in organizations with a climate for deviance (e.g., theft, drinking norms) have been shown to actively endorse CWBs (Bacharach, Bamberger, & Sonnenstuhl, 2002; Hawkins, 1984). Thus, a workplace that is tolerant of CWBs (e.g., employees support engagement in CWBs) may foster greater intentions and engagement in such behaviors (Bolin & Heatherly, 2001; Robinson & O'Leary-Kelly, 1998). Recent research (e.g., Barnett, Sanborn & Shane, 2005) has shown that norms for deviance influence college students' willingness to engage in minor moral and legal violations. Specifically, the likelihood of engagement in such low level behaviors was positively associated with rationalization that engagement was common and would not violate social or moral standards. Thus, models should include this climate for deviance (e.g., ethical climate; Peterson, 2002) among young workers. Inclusion of personality variables, such as risk taking, may help examine the formation of a climate for deviance in young workers. Coworker risk taking orientation has been supported as a strong predictor of the risk taking orientation of young workers (Westaby & Lowe, 2005).

Satisfaction and frustration research is challenging with respect to young workers, many of whom have not had the experience of their older counterparts in the workforce. Inexperienced workers are notorious for high turnover, as well as for high levels of CWBs. The present study draws attention to the importance of job satisfaction as an intervening variable and a predictor of CWBs for young workers. This has important implications for interventions aimed at reducing CWBs, yet this presents managers of young employees with the classic question of how to improve an employee's job attitude. Organizations with counterproductivity problems typically seek to either eliminate the problem (e.g., fire the worker) or monitor the problem (e.g., theft deterrent systems). Neither solution actually addresses the issue of satisfaction or frustration. While the merits of further studying the antecedents of CWBs have been explained from a theoretical standpoint, it is also imperative for practical reasons. Perhaps interventions targeted at reducing low level CWBs should really focus on increasing job related affect.

Thus, the challenge to managers is not only dispelling a climate for CWBs, but also creating a climate of engagement. Results show that qualitative work intensity may foster greater satisfaction and lower frustration levels, which may in turn lead to less engagement in CWBs. This suggests that provision of more challenging work may contribute to a decrease in CWBs, yet it is unclear how to transform the routine jobs prevalent in the youth sector into meaningful jobs. One avenue for investigation is to study profiles of successful workers in youth-dominated sectors (e.g., food service) or to include young employees in focus groups to determine how quality can be introduced into the workplace. Rather than conducting focus groups to target CWBs, managers may decide to frame focus group participation and subsequent intervention efforts at job-related affect. This may address CWBs indirectly, as well as provide perceived organizational support for employee well being.

Limitations and Future Research

This study offered an initial exploration into theory and research on counterproductivity and young workers, a few limitations should be noted. These limitations pertain to statistical issues, the sample, and the scope of this study.

Statistical/Methodological Limitations

One potential limitation of this study was the lack of power to detect mediation (Mackinnon, Lockwood, Hoffman, West & Sheets, 2002). While a power analysis conducted prior to the study indicated that the sample size was adequate to detect an effect if one did exist, it is important to note that the Baron and Kenny (1986) test of mediation has been criticized as lacking power to detect mediation effects (Preacher & Hayes, 2004). Due to skewness and kurtosis issues in the data set that remained even after transformations, it was unwise to employ the more rigorous Sobel test (Sobel, 1982) to test indirect effects (Preacher & Hayes, 2004). In nonnormally distributed data, this test may actually contradict the Baron and Kenny results (Preacher & Hayes, 2004). Such was the case in the present study. Mediation tests (e.g., Baron & Kenny, 1986) posit that the predictor must affect the outcome initially (step 1), while tests of indirect effects (e.g., Sobel test) do not warrant this assumption (Preacher & Hayes, 2004). Due to the low base rate of CWBs (see Appendix D) and lack of variance within this population, it is unlikely that data will be normally distributed using the current scales. Future studies may include more diverse samples of working students in order to address these issues.

Another statistical limitation centers on measurement of CWBs and job quality. Although many researchers (e.g., Schaubroeck, 1999) advocate objective measurement whenever possible, others (e.g., Perrewe & Zellars, 1999) support the use of subjective measures to gain a better perspective of individual interpretations. Self-report measures may be appropriate in the study of

CWBs, because they are frequently "private events, that are not amenable the third-party observation" (Duffy, O'Leary-Kelly, & Ganster, 2003, p. 194). In order for job quality to be perceived as a stressor, it must be perceived as such (Lazarus, 1976); thus, although reliance on self report measures may cause method variance (e.g., Podsakoff, et al, 2004), it is vital for stress research. While obtaining objective data regarding job quality and counterproductive work behaviors may appear ideal, this data may not represent the employee's perceptions, which may be stronger motivating factors than the objective reality (Spector, 1997b; Fox & Spector, 1999). In particular, "hard" criterion data may under-represent CWBs, due to the low base rate of this deviant behavior (Fox & Spector, 1999). Although some argue that respondents may underreport instances of deviance (e.g., Lee, 1993), significant relationships have been noted in studies using both "hard" (e.g., Perlow & Latham, 1993) and "soft" criteria (Storms & Spector, 1987). Ideally, research endeavors should incorporate both types of criteria to assess CWBs; however, the discrepancies between the two forms of measurement should be noted.

Finally, failure of the self report job quality confirmatory factor analysis to converge limited interpretation of this data. This may have been due to the limited span of jobs in which respondents in this sample were employed or the wording of the items. Specifically, many of the items focusing on aspects of job quality were directed at the individual rather than the actual characteristics of the job (e.g., I try to do the best I can). Convergence was not able to be reached without deletion of several items from each scale. To preserve the original scales, most of which had been previously validated with acceptable reliability indices, refined scales were not used in the reported analyses. Removal of items using modification indices in SEM (e.g., Wald Test) and reliability statistics (e.g., alpha if item removed) resulted in scales that were conceptually different than the original scales. Models were run using both formats, and no evidence of

mediation (as evidenced by significant indirect paths in EQS) was found in analyses using the trimmed model.

Sample Characteristics

Another limitation is that this sample was predominantly female. Young women may be employed in different types of jobs than their male counterparts, and as results showed, they differ from males with respect to conscientiousness and emotional stability. Therefore, caution must be used in generalizing findings to males from a similar population. In addition, this sample consisted of volunteers who were primarily in their first or second years of college. Coursework demands, financial constraints, and occupational goals may differ among students in their first years of college and those in their final years of college. Students nearing the end of college may seek more of a connection between their current jobs and future jobs (e.g. internship, co-op) than would students in the beginning of college. The sample was somewhat limited, because only Psychology students were used. The university used was not in a metropolitan area where there exists a wider variety of employment options.

Most research on young employees has centered on high school students, a sample that may differ significantly from working college students. Characteristics of high school and college students are different; therefore caution should be taken in generalizing findings from the present study to high school students. Further, this study focused solely on working college students, a population that may differ remarkably from individuals of the same age who are not enrolled in college. Future research may examine the three aforementioned categories of young employees to determine sources of similarity and difference.

Future studies should employ a longitudinal methodology, to better address changes in job quality, affective reactions and CWBs over time. Giacalone and Greenberg (1997) found a

link between workplace stressors and CWBs over time through gradual intensification of negative emotions. Thus, tracking individuals over time (e.g., diary study) may allow better monitoring of emotional fluctuations and engagement in CWBs. If possible, use of multiple methods to address those that were self reported in this study (e.g., theft) is optimal. As previously noted, even though discrepancies between self report and non self report (e.g., organizational records) are likely, inclusion of both may prove informative.

Scope of the Study

The measures of frustration and satisfaction employed in this study focused on the job in general terms. While informative about overall affective reactions, more specific items (e.g., satisfaction with supervision) may have pinpointed more influential aspects of the job. For instance, Robinson and O'Leary-Kelly (1998) found that employees who engaged in fewer CWBs than their coworkers were less satisfied with his or her coworkers. Examination of the work environment itself may help researchers understand the particular factors that are most problematic. For example, information regarding boredom or disengagement may help clarify the roles of satisfaction and frustration. Ideally this information could be attained through several reports (e.g., coworkers, supervisors, significant others), in order to triangulate data.

Measures of surveillance may benefit from extension and addition of more items to address *both* monitoring and opportunity to engage in CWBs. While some studies have shown that the perceived certainty of detection and the perceived severity of sanctions are important determinants of the decision to engage in CWBs (e.g., Hollinger & Clark, 1983), others suggest that policy enforcement may not be enough to deter counterproductivity (e.g., Bacharach, Bamberger, & Sonnenstuhl, 2002). One explanation is that the effect of informal consequences from coworkers are more strongly related to CWBs than formal sanctions from other

organizational members, such as managers (Hollinger & Clark, 1982). Inclusion of more detailed items regarding monitoring systems, as well as questions regarding likelihood of engagement and justification of such a decision would help clarify the decision making processes that lead to CWBs. Assessment of the relative prevalence of CWBs (e.g., percentage of coworkers that would engage in CWBs; percentage of coworkers who actually engage in CWBs) may assist understanding of how the work environment influences engagement in CWBs (see Barnett, Sanborn, & Shane, 2005). This, combined with sampling employees from the same organization, may help researchers study individual and group factors that influence decision making with respect to CWBs.

The present study measured perceptions on an individual level, presumably with few individuals from the same organization. Thus, it was impossible to delineate the role of the peer group and organizational climate in CWB activity. Considering group level perceptions of the organization and work environment may prove useful in studying the progression from perceptions to affective reactions to CWBs. The role of social processes may be particularly influential in a young sample. Additional constructs, such as climate for deviance (e.g., Osgood, Wilson, O'Malley, Bachman, & Johnston, 1996) and fairness (e.g., Black, 1987) may prove useful in understanding how both individual and group perceptions of the objective work environment may translate into deviance. For example, retaliatory behaviors may be both easier and more rewarding in the presence of one's coworkers, particularly if a climate for deviance already exists (Osgood, Wilson, O'Malley, Bachman, & Johnston, 1996). Extending the framework to include social and individual decision making variables is a viable option to explore processes leading from perceptions to CWBs.

Group and individual level perceptions may be highly contingent on the degree to which their expectations are met (e.g., Wanous, Poland, Premack, & Davis, 1992). Employed college students are a diverse group, and their reasons for working may be equally varied. For some, work is a means to finance college tuition or leisure activities, while for others, work is a way to gain valuable career skills. Affective reactions to the job are a function of pre- and post-entry expectations, as well as psychological contracts with the organization (Sutton & Griffin, 2004). Perceptions of job quality may be a byproduct of met expectations in the working environment, such that employees whose expectations are not met may experience more negative reactions to low job quality. Engagement in CWBs may be an employee's way to "get back" at an organization that it perceives as unjust (Fox, Spector, & Miles, 2001; Mars, 1982) or failing to uphold its promises. Perceived unfairness, in conjunction with norms for deviance, has been linked to CWBs (Robinson & Greenberg, 1998; Robinson & O'Leary-Kelly, 1998). Future studies should focus on the "match" between pre- and post- entry expectations as a potential moderator between perceived job quality and affective reactions. Exploration into fairness and job expectations may assist researchers in modeling the development of counterproductivity, from perceptions to both low- and high-intensity counterproductive behaviors.

Conclusions

Job satisfaction and frustration have long been implicated as antecedents of counterproductive behavior at work (e.g., Boling & Heatherly, 2001, Hollinger & Clark, 1982a, Spector & Fox, 2005), a problem that has been linked to young workers in many countries. The present study provided an initial step toward a framework to address these factors. Further, two methods of investigating job quality were employed, self report and non self report ratings, to assess job quality. While the mediational effects of satisfaction and frustration were minimal,

relationships among variables in the model provide the basis for further refinement and exploration in this area. Future studies should incorporate additional personality variables (e.g., risk-taking) and should examine the role of climate in the decision making process leading to counterproductive work behaviors.

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Appendix A. Questionnaire

Greetings, fellow BGSU student!

Allow me to introduce myself – I am a graduate student here at BGSU, and I am conducting a research study on college student employment. My goal is to get a better picture of the types of jobs college students like you experience, because few studies have considered your age group (most focus on high school students or full-time adult workers). I will use your answers to this survey to better address the issues faced by college students in your unique position. The questions on this survey will center on your work views, the job itself, and your behaviors at work. By taking 20-30 minutes to complete this survey, I can gather information that can eventually be used to help you and other college student workers like you, so your honest responses are most appreciated.

A brief web based survey will be presented to you on the next screen if you agree to participate. Your responses are confidential and will not be seen by anyone at your employing organization. To clarify, no one at your organization will be able to access any materials from you that are associated with this study. My interest is in overall responses rather than that of individuals. The only potentially identifying information gathered by this survey is your computer's internet address and your name. This information will be deleted immediately and replaced with an arbitrary identification number upon receipt of your survey responses and assignment of your 1 hour of participation credit. By clicking the "next" button at the bottom of the page, you are indicating your consent to participate in this study. You are free to withdraw from this study at **a**ny time.

Thank you for your willingness to participate in this study. After completing each page of the questionnaire, click the "next" button at the bottom of the page and wait for the next page to **l**oad. After responding to the last item on the questionnaire, click the "submit" button once and wait for the browser to finish loading the confirmation page. If you have any questions, comments, or concerns about this project, feel free to contact the project head, Jeanie Whinghter (lmcmull@bgnet.bgsu.edu) or the overall project supervisor, Dr. Steve Jex (sjex@benet.bgsu.edu). If you have questions about the conduct of this study or your rights as a participant in this research, you may contact the Chair of Bowling Green State University's Human Subjects Review Board at (419) 372-7716 or via email at hsrb@bgnet.bgsu.edu.

Sincerely, Jeanie Whinghter, M.S.

In order to get a better picture of what type of job you have, I would like you to look up your SOC code in a separate window. Here's how:

1) Open a new window. Go to the start menu and choose Internet Explorer
2) Type in this link: http://online.onetcenter.org/find/
3) On the left side, type your job title in the 1st box (it will say "keyword or O*Net SOC code search")
4) Hit "go". A list of job titles will pop up, with a list of corresponding codes on the left.
5) Check out the list until you find the occupation that best describes your job.
6) Click on the occupation and check out the description – is this your job?
7) If you, write down the 8-digit "code". It will look something like this: 35-3031.00
8) If not, hit "back" and check out the other descriptions until you find yours. If you cannot find your job code type in the 2 most similar to your job.

Type the 8-digit SOC code from O*Net here: _____

Please type in your responses to the following questions.
Job title:
Briefly describe your primary job duties in 1-2 sentences:
How long have you been working at your present job?
How long have you been working altogether?
How many hours per week do you work (on average)?
When you work, how long are your shifts (on average)?

In what sector do you work (check all that apply)?

- ☐ Retail
- ☐ Food service
- ☐ Customer service
- ☐ Security
- ☐ Other (please explain): _____
- ☐ Recreation
- ☐ Work-study (on campus)
- ☐ Entertainment
- ☐ Agriculture

Below are phrases describing people's behaviors. Please use the rating scale below to describe how accurately each statement describes *you*. Describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as you honestly see yourself, in relation to other people you know of the same sex as you are, and roughly your same age. Read each statement carefully, and circle the number that best describes you.

1: Very Inaccurate	2: Moderately Inaccurate	3: Neither Inaccurate nor Accurate	4: Moderately Accurate	5: Very Accurate

1.	I am always prepared.	1	2	3	4	5
2.	I pay attention to details.	1	2	3	4	5
3.	I get chores done right away.	1	2	3	4	5
4.	I carry out my plans.	1	2	3	4	5
5.	I make plans and stick to them.	1	2	3	4	5
6.	I waste my time.	1	2	3	4	5
7.	I find it difficult to get down to work.	1	2	3	4	5
8.	I do just enough work to get by.	1	2	3	4	5
9.	I don't see things through.	1	2	3	4	5
10.	I shirk my duties.	1	2	3	4	5
11.	I am relaxed most of the time.	1	2	3	4	5
12.	I seldom feel blue.	1	2	3	4	5
13.	I get stressed out easily.	1	2	3	4	5
14.	I worry about things.	1	2	3	4	5
15.	I am easily disturbed.	1	2	3	4	5
16.	I get upset easily.	1	2	3	4	5
17.	I change my mood a lot.	1	2	3	4	5
18.	I have frequent mood swings.	1	2	3	4	5
19.	I get irritated easily.	1	2	3	4	5
20.	When there’s a job to be done, I devote all my energy to it.	1	2	3	4	5
21.	When I work, I do so with intensity.	1	2	3	4	5
22.	I work at my full capacity in all of my job duties.	1	2	3	4	5
23.	I strive as hard as I can to be successful in my work.	1	2	3	4	5
24.	When I work, I really exert myself to the fullest.	1	2	3	4	5

Below are some statements about jobs. Rate the extent to which you agree or disagree with each statement by circling the answer that best describes you.

	1 = Strongly Disagree	2 = Disagree	3 = Neither Agree nor Disagree	4 = Agree	5 = Strongly Agree
1.	I change my career objectives frequently	1	2	3	4	5
2.	My career objectives are not clear	1	2	3	4	5
3.	I know what I need to do to reach my career goals	1	2	3	4	5
4.	I have a strategy for achieving my career goals	1	2	3	4	5
5.	I have a plan for my career	1	2	3	4	5
6.	I really have not decided what my career objective should be	1	2	3	4	5
7.	My job has helped me develop a better idea of what I seek in a job.	1	2	3	4	5
8.	I have learned a lot about myself through my job.	1	2	3	4	5
9.	I feel that my job has helped me figure out who I am.	1	2	3	4	5
10.	I have been able to “try out” different roles through my job.	1	2	3	4	5
11.	This job has helped me determine what I do and do not want in my future jobs.	1	2	3	4	5
12.	My job has not provided me with much in terms of defining what I want in my future career.	1	2	3	4	5

Think of your job in general. All in all, what is it like most of the time? For each of the following words or phrases, circle: 1 for "Yes" if it describes your job, 2 for "No" if it does not describe it, or 3 for "?" if you cannot decide.

		Yes	No	?
1.	Good	1	2	3
2.	Undesirable	1	2	3
3.	Better than most	1	2	3
4.	Disagreeable	1	2	3
5.	Makes me content	1	2	3
6.	Excellent	1	2	3
7.	Enjoyable	1	2	3
8.	Poor	1	2	3

Circle the number that represents your level of agreement with each statement.

1 = Strongly Disagree | 2 = Disagree | 3 = Neither Agree nor Disagree | 4 = Agree | 5 = Strongly Agree

1.	Trying to get my job done is rarely frustrating	1	2	3	4	5
2.	Overall, I experience very little frustration on this job	1	2	3	4	5
3.	Being frustrated comes with this job	1	2	3	4	5
4.	My job allows me to make my own decisions about how to schedule my work	1	2	3	4	5
5.	My job allows me to decide on the order in which things are done on my job	1	2	3	4	5
6.	My job allows me to plan how I do my work	1	2	3	4	5
7.	My job gives me a chance to use my personal initiative or judgment in carrying out the work	1	2	3	4	5
8.	My job allows me to make a lot of decisions on my own	1	2	3	4	5
9.	My job provides me with significant autonomy in making decisions	1	2	3	4	5
10.	My job allows me to make decisions about what methods I use to complete my work	1	2	3	4	5
11.	My job gives me considerable opportunity for independence and freedom in how I do my work	1	2	3	4	5
12.	My job allows me to decide on my own how to go about doing my work	1	2	3	4	5
13.	My job requires me to accomplish my job before others complete their jobs	1	2	3	4	5
14.	Other jobs depend directly on my job	1	2	3	4	5
15.	Unless my job gets done, other jobs cannot be completed	1	2	3	4	5
16.	My job activities are greatly affected by the work of other people	1	2	3	4	5
17.	My job depends on the work of many different people for its completion	1	2	3	4	5
18.	I have the opportunity to develop close friendships in my job	1	2	3	4	5
19.	I have the chance in my job to get to know other people	1	2	3	4	5
20.	I have the opportunity to meet with others in my work	1	2	3	4	5
21.	My supervisor is concerned about the welfare of the people that work for him/her	1	2	3	4	5
22.	People I work with take a personal interested in me	1	2	3	4	5
23.	People I work with are friendly	1	2	3	4	5

The following statements relate to your mentor at work. *A mentor is someone who is above you in rank, and who gives you some form of guidance*. Please rate the accuracy of each statement in relation to ONE PERSON who you see as a mentor at the place where you are employed NOW.

1 = Strongly | 2 = Disagree | 3 = Neither Agree nor | 4 = Agree | 5 = Strongly Agree

		Disagree				Disagree
1.	My mentor has shared the history of his/her career with me	1	2	3	4	5
2.	My mentor has encouraged me to prepare for advancement	1	2	3	4	5
3.	My mentor encourages me to try new ways of behaving in my job	1	2	3	4	5
4.	I try to imitate the work behavior of my mentor	1	2	3	4	5
5.	I agree with my mentor's attitudes and values regarding education	1	2	3	4	5
6.	I respect and admire my mentor	1	2	3	4	5
7.	I will try to be like my mentor when I reach a similar position in my career	1	2	3	4	5
8.	My mentor has demonstrated good listening skills with me	1	2	3	4	5
9.	My mentor has discussed my concerns about my competence, advancement, relationships with coworkers or other conflicts	1	2	3	4	5
10.	My mentor has shared personal experiences as an alternative perspective to my problems	1	2	3	4	5
11.	My mentor has encouraged me to talk openly about anxiety and fears that detract from my work	1	2	3	4	5
12.	My mentor has conveyed empathy for the concerns/feelings I have discussed with him/her	1	2	3	4	5
13.	My mentor has conveyed feelings of respect for me as a person	1	2	3	4	5
14.	My mentor reduced unnecessary risks that could threaten the possibility of receiving a promotion	1	2	3	4	5
15.	My mentor helped me finish tasks or meet deadlines that otherwise would have been difficult to complete	1	2	3	4	5
16.	My mentor helped me meet new colleagues	1	2	3	4	5
17.	My mentor gave me assignments that increased written and personal contact with [important people] in my organization	1	2	3	4	5
18.	My mentor gives me responsibilities that increase my contact with people who may judge my potential for advancement in the future	1	2	3	4	5
19.	My mentor gave me tasks that prepared me for a higher position	1	2	3	4	5
20.	My mentor gave me task that allow me to learn new skills	1	2	3	4	5

How often have you done each of the following things on your present job?

1 = Never 2 = Once or twice 3 = Once or twice per month 4 = Once or twice per week 5 = Every day

1.	Came to work late without permission	1	2	3	4	5
2.	Stayed home from work and said you were sick when you weren't	1	2	3	4	5
3.	Taken a longer break than you were allowed to take	1	2	3	4	5
4.	Left work earlier than you were allowed to	1	2	3	4	5
5.	Purposely did your work incorrectly	1	2	3	4	5
6.	Purposely failed to follow instructions	1	2	3	4	5
7.	Purposely worked slowly when things needed to get done	1	2	3	4	5
8.	Stolen something from your employer	1	2	3	4	5
9.	Took supplies or tools home without permission	1	2	3	4	5
10.	Put in to be paid for more hours than you worked	1	2	3	4	5
11.	Took money from your employer without permission	1	2	3	4	5
12.	Daydreamed rather than did your work	1	2	3	4	5
13.	Complained about insignificant things at work	1	2	3	4	5
14.	Refused to take on an assignment when asked	1	2	3	4	5
15.	Purposely came late to an appointment or meeting	1	2	3	4	5
16.	Failed to report a problem so it would get worse	1	2	3	4	5
17.	Tried to look busy while doing nothing	1	2	3	4	5
18.	Told people outside my job what a lousy place you work for	1	2	3	4	5

Please rate the extent to which you agree or disagree with each of the following statements.

1 = Strongly Disagree 2 = Disagree 3 = Neither Agree nor Disagree 4 = Agree 5 = Strongly Agree

1.	I try to do the best I can	1	2	3	4	5
2.	I feel confident most of the time about how well I can do my job	1	2	3	4	5
3.	Even if my job changes, I feel that I can go along with it	1	2	3	4	5
4.	I want my job the stay the same	1	2	3	4	5
5.	I only do what is expected of me – nothing more	1	2	3	4	5
6.	I feel that others think I am doing a good job	1	2	3	4	5
7.	I don't see how my job fits into the 'big picture'	1	2	3	4	5
8.	I usually have to ask somebody where things are and how to use them in my job	1	2	3	4	5
9.	I use what I learned in school on my job	1	2	3	4	5
10.	The training I am getting doesn't seem to have anything to do with my job	1	2	3	4	5
11.	I can see how my work fits into what the organization is doing	1	2	3	4	5
12.	I have difficulty doing the best I can on my job	1	2	3	4	5

13.	What I learned in school has helped me do well on my job	1	2	3	4	5
14.	I don't understand what my on-the-job training has to do with my work	1	2	3	4	5
15.	I try as hard as I can to learn my job	1	2	3	4	5
16.	I really want to know everything I can on my job	1	2	3	4	5
17.	I feel that I am constantly being watched to see that I obey all rules pertaining to my job	1	2	3	4	5
18.	I am constantly checked for rule violations at work	1	2	3	4	5
19.	Consequences for violating rules and procedures at work are severe	1	2	3	4	5
20.	My supervisor inspects my work closely to see that it measures up to standards	1	2	3	4	5
21.	Even if someone is discovered violating a rule they are rarely punished for it					

The following information will help us understand your college life. In order to assign your research credit accurately, I need this information. After your credit is assigned, identifying information will be immediately purged.

What is your status in college (e.g., Freshman, Junior)?
What is your gender?
What is your age?
What is your first name?
What is your last name?
Is there anything else you would like to share with me regarding your job?

Appendix B. Coding sheet

Please rate each dimension on a scale of 1 – 10, with 1 being the lowest and 10 being the highest ratings of each component. To clarify, a rating of 1 means that that characteristic is not present at all in the job. A rating of 10 means that there is a high level of that characteristic in the job. A rating of 5 means that there is a moderate level of that characteristic in the job. A sample rating sheet is provided for you to reference.

- Look up each job on O*Net at http://online.onetcenter.org/find/
- Enter the SOC code that best describes that job
- Go under the "details view" for the job and carefully read the entire description
- Fill out this sheet, using the scale described above
- Space is provided next to each description for notes, etc.

O*Net dimensions

Tasks | Knowledge | Skills | Abilities | Work Activities | Work Context | Job Zone | Education | Interests | Work Styles | Work Values | Work Needs | Related Occupations | Wages & Employment | Additional Information

Coder:	
Job:	

Autonomy refers to the level of discretion job holders are allowed to exercise on the job. Examples of high autonomy include being able to make decisions about one's work duties, scheduling, and/or how one accomplishes work tasks. Low autonomy includes little freedom to make any decisions on one's own at/in relation to work.	Rating									
	No discretion allowed									*Complete discretion on the job*
1	1	2	3	4	5	6	7	8	9	10

Social connectedness refers to the interpersonal relationships at work. Examples of high social connectedness include interdependence of workers to accomplish work tasks, close relationships with coworkers, and working alongside others. Low social connectedness refers to working alone, with little contact with others.	Rating									
	Works alone									*Always works with & depends on others*
2	1	2	3	4	5	6	7	8	9	10

Learning and mastery refers to the attainment of skills and information through one's job. Examples	Rating

of this include learning new skills from one's job, achieving higher levels of a particular skill, and transferring skills from the work to nonwork settings. Low learning and mastery means that there is little opportunity for gaining new skills or transferring skills to/from the workplace.		*No chance to learn or gain skills*								*Constantly learning & attaining new skills*	
3		1	2	3	4	5	6	7	8	9	10
Occupational development refers to the way in which work helps one decide on future career plans. Examples of this include acquiring experience to provide a basis for the future (e.g., internships); receiving training that was beneficial to one's future, and linking the job to educational curriculum. Low occupational development means that the experiences at work have no real beneficial value for one's career or education.		Rating									
		No way to use job to make future job plans								*Job has clear professional correlate*	
4		1	2	3	4	5	6	7	8	9	10
Identity clarification refers to the way in which work helps to clarify one's place in the world. Examples of this include exploring different work related roles, examining work-related values, and developing one's self-concept. Low identity clarification occurs in jobs that do not allow employees to try different roles or tasks, and provide little opportunity to help the employee discover more about him/her.		Rating									
		No way to explore one's self concept								*Job provides ways to try new roles, define self*	
5		1	2	3	4	5	6	7	8	9	10
Adult mentoring refers to the extent to which one receives support, advice, and examples from adults in the workplace. Examples of this include career advice, learning through exemplary behavior, and informal questions/discussions regarding one's employment future. Situations with low adult mentoring are those in which few adults are present, the employee has little time to interact with the adults, or the adults do not provide exemplary behavior for the employee.		Rating									
		No mentors in workplace								*High guidance from mentors*	
6		1	2	3	4	5	6	7	8	9	10
Work intensity refers to the effort and motivation expended in accomplishing work tasks. Examples of		Rating									

high work intensity include mentally challenging work, fast-paced work, and work that requires intense concentration. Low work intensity occurs when the work is mundane, slow-paced and requires little mental attention.		*No effort needed*									*Continuous effort needed*
7		1	2	3	4	5	6	7	8	9	10

Appendix C. Model modification

	χ^2	df	CFI	SRMR	RMSEA	Problem items
Autonomy (α = .93)	327.44	27	.860	.059	.189	
Identity clarification (α = .82)	45.13	9	.949	.054	.113	
Learning/mastery (α = .79)	677.15	104	.561	.103	.139	*4. I want my job to stay the same* *5. I only do what is expected of me* *7. I don't see how my job fits into the 'big picture'* *8. I usually have to ask somebody where things are and how to use them in my job* *9. I use what I learned in school on the job* *10. The training I am getting doesn't seem to have anything to do with my job.* *13. What I learned in school has helped me do well on the job* *14. I don't understand what my on the job training has to do with my work*
Mentoring (α = .92)	967.73	170	.733	.083	.124	*1. My mentor has shared the history of his/her career with me* *3. My mentor encourages me to prepare for advancement* *9. My mentor has discussed my concerns about my competence, advancement, relationships with coworkers or other conflicts* *14. My mentor reduced unnecessary risks that could threaten the possibility of receiving a promotion* *15. My mentor helped me finish tasks or meet deadlines that otherwise would have been difficult to complete.*
Social connectedness (α = .78)	919.84	44	.512	.200	.254	*13. My job requires me to accomplish my job before others complete their jobs.* *21. My supervisor is concerned about the welfare of the people that work for him/her* *22. People I work with take a personal interest in me*
Occupational development (α = .90)	172.32	9	.863	.071	.243	*1. I change my career objectives frequently*
Qualitative work intensity (α = .89)	38.12	5	.963	.039	.145	

Appendix D. Prevalence of CWBs in the current sample (percent).

	Never	Once or twice	Once or twice per month	Once or twice per week	Every day
Came to work late without permission (W)	51.7	39.9	6.9	1.6	0
Stayed home from work and said you were sick when you weren't (W)	63.3	33.9	2.5	.3	0
Taken a longer break than you were allowed to take (W)	59.4	26.6	9.1	4.4	.6
Left work earlier than you were allowed to (W)	75.7	19.0	4.0	1.2	0
Purposely did your work incorrectly (PD)	87.5	10.9	1.6	0	0
Purposely failed to follow instructions (PD)	88.5	11.2	.3	0	0
Purposely worked slowly when things needed to get done (PD)	73.8	21.6	3.1	1.6	0
Stolen something from your employer (T)	94.1	4.1	1.6	.3	0
Took supplies or tools home without permission (T)	85.4	12.5	1.6	.6	0
Put in to be paid for more hours than you worked (T)	94.1	2.3	.6	0	0
Took money from your employer without permission (T)	100	0	0	0	0